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THE

# PHILADELPHIA



# PHOTOGRAPHER.

EDITED BY EDWARD L. WILSON.

VOLUME X.



PHILADELPHIA:
BENERMAN & WILSON, PUBLISHERS,
S. W. COR. SEVENTH & CHERRY STREETS.
1873.

Entered, according to Act of Congress, in the year 1873,

By Benerman & Wilson,

In the Office of the Librarian of Congress, at Washington, D. C.


CAXTON PRESS OF SHERMAN & CO.,
PHILADELPHIA.

# PHOTOGRAPHIC EMBELLISHMENTS.

*January.* "Cabinet" Portrait—Dr. H. Voge, By LOESCHER & PETSCH, Berlin, Prussia.

*February.* Pictures of Living Animals. By SCHREIBER & SONS, Philadelphia.

*March.* Portrait—Benj. French, Esq.—By WARREN & HEALD, Boston, Mass.

*April.* "Porcelain" Portrait. By W. H. JACOBY, Minneapolis, Minn.

*May.* "Cabinet" Portrait. By FRANK JEWELL, Scranton, Pa.

*June.* "Cabinet" Portrait. By F. LUCKHARDT. Vienna.

*July.* "Cabinet" Portrait of Miss Rosa D'Enna. By W. J. BAKER, Buffalo, N. Y.

*August.* Cherubim and Seraphim. Heliotypes by the E. Edwards Process. Printed by JAS. R. OSGOOD & Co., Boston.

*September.* "Cabinet" Portrait. By G. F. E. PEARSALL, Brooklyn, N. Y.

*October.* Carte Pictures—Fannie Eaton. By E. L. EATON, Omaha, Nebraska.

*November.* "Porcelain" Portrait. By W. H. JACOBY, Minneapolis, Minn.

*December.* "Cabinet" Portrait from reproduced negatives by the Edwards Process. Negatives and Prints by Messrs. TRASK & BACON, Philadelphia.

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SCHREIBER & SON PHOTOGRAPHERS

PHILADELPHIA.

THE

# Philadelphia Photographer.

Vol. X. JANUARY, 1873. No. 109.

Entered according to Act of Congress, in the year 1873,
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## IMPORTANT NOTICE.

The Annual Convention and Exhibition of the National Photographic Association is to be held in Buffalo, N. Y., in May, instead of in Rochester, in July. Please read the proceedings of the Executive Committee and other communications on the subject further on.

## A LITTLE NEW YEAR CHAT.

First, we wish all of our readers, whoever they are or wherever they are, cordially, a prosperous and happy New Year in the fullest sense of the term. Second, we thank you for the very encouraging and oftentimes enthusiastic manner in which you have responded to our request to "fill up the order-sheets full and send them on to us promptly." You have enabled us to commence the New Year *happily*, and therefore, Thirdly, let us tell you a little of what we propose to do for you.

We propose to make the *Philadelphia Photographer* the brightest, spiciest, newsiest, liveliest, most useful, and best of its class. The *World* is now off our shoulders, and we feel very much as we have felt after having had a tooth pulled. A little pain loiters still, but there is more room for what is left, to grow; they will not be crowded so much, hence will not decay so soon, and the whole body will be the better for it; at least we hope so.

We shall, in addition to a dozen of beautiful pictures, the usual variety of useful hints, discussions, proceedings of societies, news, correspondence, plans, wrinkles and dodges, &c., &c., have our regular Notes In and Out of the Studio, from England, through our well-known friend and coworker, Mr. G. Wharton Simpson; the latest news from Germany through our old friend Dr. Vogel, besides original and characteristic contributions from Mr. Elbert Anderson; a regular series of photographic instruction from Mr. I. B. Webster; a fresh lot of ideas from Mr. R. J. Chute (Roland Vanweike); more good "Hints" from Mr. John. L. Gihon; entertaining articles from Mr. William Heighway; and last, though not least, we have engaged the services of Mr. George O. Brown, late editor of the *Photographer's Friend*, of Baltimore. With such a strong staff we cannot fail to do good. Local Secretary Baker will of course be heard from frequently, and in addition to all these, we hope to hear from *all* of you, as often as you can send us anything real good and practical, which you think will be useful to others. If drawings are necessary to illustrate your articles, always use them. Please make your articles practical and pointed, and as plain as possible. Avoid versifying. It is nice, but it takes

too much space to tell a short story. Secretaries of societies will oblige us by sending copies of their proceedings as soon as possible after their meetings are held. We prefer the *practical* to the details of the business, which only concerns the membership.

Now, with the North, South, East and West, we propose to join hands and interests for one year more, hoping that during that year we may witness some of the most wonderful advances that have ever been made in the art. This is not unlikely, for we are now in communication with more than one practical experimentalist, who assures us that important discoveries have been made. Let us work diligently, and we shall all prosper.

Again we say, Happy New Year.

## Proceedings of the Executive Committee of the N. P. A.

A MEETING of the Executive Committee of the National Photographic Association was held in New York on Wednesday, November 18, at 4 P.M. Present—Messrs. Bogardus, Wilcox, Adams, and Wilson.

After the reading of the minutes and the reports of committees, the Secretary read a communication from Mr. J. H. Kent, the Local Secretary appointed for 1873, stating that the Rink at Rochester, N. Y., the only building large enough in that city to accommodate the Exhibition, was about to be altered into stores, &c., so that it would not be available. This being the case, it would be impossible to hold the meetings and Exhibition in Rochester, and he would therefore beg to resign, and suggested a change of locality.

Mr. Kent's resignation was accepted, and Mr. Adams offered the following preamble and resolution:

*Whereas*, Mr. J. H. Kent, Local Secretary, having informed this Committee that the contract with the proprietors of the Rochester Rink having been broken on account of it being altered into stores, &c.; and

*Whereas*, Mr. Kent informs us that there is no other building in Rochester suitable for the purpose; and

*Whereas*, He resigns his position as Local Secretary; and

*Whereas*, As the second choice at the Convention at St. Louis was for Buffalo, N. Y.; therefore it is

*Resolved*, That the next Convention and Exhibition be held at Buffalo, N. Y., commencing Tuesday, May 13th, 1873, and that Mr. W. J. Baker be appointed as Local Secretary.

The Secretary stated that he had, in order to make time, communicated with Mr. Baker on the subject, and he had consented to act, provided the time was changed as above, for that was the best time to hold the Convention in that city. The Secretary also stated that better arrangements with hotels and railroad companies could be made also than could be had during the rush of travel which occurs in June and July.

The changes above stated were therefore accordingly made.

The Committee on Foreign Medals reported that the medals would be ready in a few days.

After other business yet in progress, the Committee adjourned.

EDWARD L. WILSON,
Sec. Ex. Com.

## THE SKYLIGHT AND THE DARK-ROOM.

BY W. J. BAKER.

IT is not a decade since we "country fellows," when we saw a fine photograph from a metropolitan gallery, were wont to attribute the effect to some unusual hocus-pocus of formula, or manipulation, or position of light, or excellence of instrument; indeed, receipts were very much the reliance of many notable operators. As we had got it through our heads that the laws of chemical combination were invariable, so a collodion with such and such ingredients, in a bath that was "in harmony," and brought out by some special developer, was supposed to yield a constant intensity, just right for printing, a uniform amount of detail in the shadows, and, I had almost said, a beautiful pose, but not many of us troubled ourselves

about position at that time; expression was the debatable ground whereon we were continually at sword-point with the public, and collodion for expression was not.

The happy (!) idea of compounding a *quantum sufficit* of "brains" with our chemicals had not yet been made public; it was not known that this was a sure cure for sick baths,* &c.

In those times the process vendors flourished. It was thought that those who made books kept the best part of what they knew to themselves. We made pictures by the bushel for about $1.50 or $2 a doz. Some of those cartes with my name on the back make me shudder now.

Two things have changed all this. First, there is no longer that universal demand for photographs, compelling a rapid turning of the crank; and, secondly, a persistent effort has been made, chiefly by our Editor, to enlighten photographers as to the correct method of operating, and the results to be aimed at.

So it has at length come about that formula has been relegated to the second place in our estimation, and some inklings of art culture are mixed with the daily practice of most of us.

At the time referred to there was no photographic journal of any consequence edited in America, and for some time after the *Philadelphia Photographer* was established, no work on the art, at all complete, was published in this country. "Hardwich" was imported as a standard, and though a little out of date on a few points, it is still a noble book for reference to the photographer, and the part devoted to the "Chemistry of Photography," has never been approached by any other writer. But "Hardwich" requires too much study to be a popular book, and has been superseded by the "Manual" of M. Carey Lea and Dr. Vogel's "Handbook;" and now a new claimant for the photographers' favor has appeared—"*The Skylight and the Dark-Room*," by Elbert Anderson. And the author's personal celebrity will undoubtedly be a great advertisement for his book. Indeed we know of stockdealers having received orders for it, a full year ago, when it was only rumored that it was to be written.

It is a book that no one will be disappointed in, except those who yet expect to find a receipt to overcome, without effort on their part, their own ignorance, sluttishness, and tastelessness. It is *au fait* on all points of practice, as far as it goes; we say as far as it goes, for in some respects it is, in common with all other books, not ample enough; and the directions for the management of the silver and toning baths for paper positives (printing), are very meagre. Another important omission is an explanation of the respective function of the iodides and bromides in collodion. The directions for the management of the negative bath are undoubtedly the best and clearest ever given. A warning is omitted about letting fused silver cool spontaneously in the porcelain dish, which will sometimes ruin the latter; as the silver, contracting more than the dish, has, in my own experience, pulled portions of the glazing away. The safe way is to pour out the melted salt on to a smooth piece of sheet brass, or stir it in the dish; it will gradually become a pasty, then a granulous mass, and can be worked into a lump, that will only touch a small spot of the dish; before it is at all cold hot water may be poured on it, when it will quickly dissolve.

When a bath is to be fused, a previous dilution and filtration to remove the iodide of silver is quite unnecessary. Considerable *nitrite* of silver is formed during the fusing, which is precipitated on redissolving, and carries much of the iodide down with it, as any such precipitant is apt to.

There is one thing which, while it perhaps does not at all affect the value of this book, from a photographic point of view, yet we very much wish had been different.

We cannot suppose that Mr. Anderson is unaware of those discoveries concerning the nature of light, heat, electricity, and magnetism (formerly considered as "imponderable substances"), which are known as the "doctrine of the correlation and conservation of forces," by which we know

* Even yet, in the formula in use in my studio, no brains are compounded; we have to keep them to use at other points, chiefly during the making of sittings.

the four "imponderables" to be *not entities*, but "affections of matter," or "modes of motion," so correlated that any one of them is resolvable into an equivalent of the other, or into a sensible motion.

Why Mr. Anderson, being aware of the important rank this correlation holds in modern philosophy, should have chosen the old nomenclature is a mystery. Page 17 he says: "*Fluids* is a term more properly applied to BODIES, such as electricity, magnetism, &c." Now neither electricity nor magnetism are bodies, or substances, or fluids at all, any more than sound is. Again, on page 30: "Heat is that physical agent," &c. "Heat accumulating in bodies, penetrates into their pores." As heat is a vibratory motion of the particles of the substance warmed, and not an impalpable kind of matter, it seems that some other definition and statement could be more easily construed as according with facts.

After, on page 35, having adopted the undulatory theory of light, and happily explained it, he suffers himself continually to speak of a "ray of light," in a manner that conveys the idea that a "ray" is an actual essence, and not an effect, or affection of the hypothetical ether; as on page 90, "that portion of the ray which passes through the mixture, will have lost its power of ever again bringing about a like change." The fact, in the light of modern science, being that a certain amount of *force* from the sun, having been used to produce a chemical change, is locked up in the elements affected, and can only be loosed again by conditions favorable to a new change.

Not to attach overmuch importance to a way of speaking about things, it will be seen that quite a different order of ideas arise in the mind about the nature of things, whether we think of electricity as a "fluid body" running through a solid copper wire, three thousand miles long, at the bottom of the ocean, or consider the particles of the wire as trembling invisibly, each particle setting the next going successively, through the entire length, in response to the initiatory vibration, generated by the chemical action of the battery; whether we consider heat as a similar motion of the particles, diminishing in the phenomenon known as cooling, augmented in that of heating, to the extent of overcoming cohesion, or even chemical affinity as in the liquefaction of ice, the melting of the metals, the combustion of inflammable matter; or think of heat as itself matter, with an incomprehensible power of forcing itself into other bodies, accumulating in their pores, expanding them with an irresistible force, dissipating the diamond in vapor, exploding the fulminites, and doing other incomprehensible things of its own will; whether we are accustomed to think of Light as a rapid vibration of ethereal matter, or as countless millions of darts constantly projected by luminous bodies, will, in all these and similar cases, form in our minds quite different conceptions of this universe.

In the one hypothesis we have an order, the simplest, grandest possible; matter and motion, both united in the idea of Force. Matter* and its motions, sympathetic, equivalent, convertible, giving rise to all the discovered, and the countless undiscovered phenomena of creation, all in turn evolved one from the other, the infinite variety all reduced, as far as the human understanding can grasp them, to one idea.

In the other case there seems to be no chain of links to hold nature together; no normal sequence of events. We have heavy matter, and matter of no weight, and the less gravity the matter has, the more energetic it becomes, flying about with a force that tangible substance cannot resist. An anarchaic quasi system, that only existed, or exists, in minds that confusedly apprehend the true relations of the factors of the phenomena about us.

An apprehension of the true relation of force, luminous, electrical, or otherwise, would dissipate many a crude theory into its normal nothingness; and in the preliminary chapters of his book, Mr. Anderson had the opportunity to do the mass of photographers an inestimable service, by, first, a setting forth of the theory of correlation, and then showing its particular application to photography. This would establish pho-

* I know that the existence of matter other than as phenomenal cannot be proved, and is doubted by many.

tographic knowledge on the breadth of a truly scientific basis.

In "Art, as applied to Photography," we do wish that the author had chose to introduce at least *one* of those perfect samples of his work that are daily delivered from Mr. Kurtz's gallery.

The examples given seem chiefly useful to point out defects, which is freely done, though in reference to the only copy of the book we have seen, we must say, that all the examples of pencilling are overworked, worked till the face looks swollen and tumefied; so that No. 2 does not give a "soft, pure skin," but rather looks as though copied from a wooden effigy that had been sand-papered.

From one art dictum of our author, we beg to differ most decidedly. When he says, on page 196, "Never let your faces be as white as the shirts or the white draperies; remember, the skin is much darker than the shirt;" we would say, *do not let your shirt, or white drapery, be as white as the high-light of your face, if you can help it.* Why? Not because the shirt is not in nature whiter than the face; but in order to keep the face the most important part of the picture, it must be the most brilliant. Painters do the same thing; they tone down all whites to the face, and though in color they would not put the face *whiter* than the shirt, yet they make it more brilliant by the force of colors, and put the shirts mostly in *half tone;* and we ought to do the same thing in photographs.

One word to a certain class of minds, whom previous experience in criticizing have shown us to be so constituted as to suppose that because we think a few faults can be shown to exist in a work, we must, therefore, also think the whole thing to be worthless. Not so at all, either in photographs or books. As to the present, of which latter it is certainly one of great value, from the fact that, among other virtues, it puts its matter in a shape more easy to get at than any other, and is therefore better adapted to the general photographer than any other. We only hope that five thousand copies will go, each into a pair of silver-stained hands in Uncle Sam's land, before the close of this year; and, brother photographers, remember, when you have read your copy, read it again, study it, consult it on points of your daily practice, and keep trying till you can *do* it.

## PHOTOGRAPHIC MINCEMEAT.*

BY I. B. WEBSTER.

EIGHTHLY. *To Prepare Glass for Negatives.*—In any vessel that will accommodate the size glass required, put in the contents of a box of concentrated lye, and fill up with water (kind not material); put in the lye, then fill up with glass; and lastly, add as much water as the vessel will hold. This answers as well for old or discarded negatives as for new glass. Let the glass remain in this solution until the old impression slips off completely (or in case of new glass, at least twenty-four hours); now remove one or two at a time, letting them drain well, and wash them well under the tap (or if no tap is used, wash in a large body of water), and then pass them into a dish containing commercial sulphuric acid, where they ought to remain at least twenty-four hours. At the end of that time they are ready for the substratum. There appears to be quite a difference of opinion in regard to the preparation of this substratum; but I unhesitatingly say, that after five years' constant practice in one direction, I prepare a substratum that is perfectly reliable for practical use, and as such I recommend it. Here is my formula: I send for five cents' worth of eggs; sometimes I get four, and sometimes I get one. I attribute the difference in the number to the hens themselves, for I am of the opinion that they get on a strike now and then, which we all know makes quite a difference in the price. And why not? Don't our camera boxes and other useful articles "go up" for the same reason? Of

* Mr. Webster proposes in our present volume to write a series of articles for our pages covering every department of gallery work, and as glass cleaning is the first step, he returns in a measure to that subject which he treated upon once before. But it will bear another rub or fresh coating, and such practical thoughts as Mr. Webster gives us are well worth the best of attention.—ED.

course they do, and I am content to get either the two or the four. Two is all I want (if they are good), and with the small blade of my knife I cut off the shell at the small end, leaving an aperture large enough for the white to pass out, leaving the yolk inside the shell. It is supposed that each egg yields one ounce of albumen, but it rarely occurs that two eggs will produce two ounces. That, however, is immaterial, for if it is deposited in a graduate, the exact amount can be seen. To the product of these two eggs add just as much again water, about ten grains of iodide of potassium, and about twenty drops of strong liquid ammonia (same as used in fuming the silvered paper for printing), and with an egg-beater, beat it up to a strong or thick froth. Set this away to settle. It is better to leave it at least over night. In the morning decant the clear solution that has settled at the bottom, and add to it about sixteen ounces of water. Now shake this mixture up thoroughly, and then filter, first through a sponge, then through cotton cloth, and lastly through common filter-paper. When sufficient has passed through the last filter, remove the glass, singly, from the acid, allowing each one to drain well, and pass them, one at a time, into the sink, or some vessel containing quite a body of water. After thus treating as many as are wanted for the time, take them, one at a time, and rinse or wash them well under the tap, and then proceed to carefully and effectually flow over them the filtered solution of albumen, having care to prevent any air-bubbles from remaining upon the surface of the plate (or glass), for be it remembered, that a very little agitation produces these bubbles, and great care must be exercised to prevent their presence upon the plate's surface, as they are mischievous. When plates are so prepared and carefully preserved, they will be found reliable. I do not claim that plates thus prepared are absolutely clean, but I do claim four important points in this preparation which are worthy of attention, and thus I state them, viz., first, the lye solution removes nearly all of the substance of a greasy nature, while, second, the acid takes the greater part, if not all of the rust from the glass, and third, the albumen covers up and makes transparent whatever of either of these remains, and fourth, prevents the collodion film from separating itself from the glass. I might also add, fifth, and say that it prevents future blistering, and a final separation in flakes, somewhat resembling the scales of a fish. The foregoing is from personal experience, and I venture to say that a practical man will never go back to rottenstone, patches, and alcohol if he will work this way three months. I have seen many written objections to this method, but in every instance I discover that theory is at the bottom of them. To all such I say *try it* fairly, and then state your objections.

## YET ANOTHER TOUCH.*

BY H. H. SNELLING.

To read the various replies and comments upon my articles on "Retouching," an indifferent reader might be led to suppose that I either know nothing about photography and the fine arts, or that I had committed an almost unpardonable breach of propriety in discussing this question of retouching negatives, with the purpose of injuring the "fraternity"—an appellation self-assumed, without a particle of merit characteristic of brotherhood to sustain it—neither of which suppositions would be correct.

Nothing, certainly, was further from my thoughts, when I wrote my first article, or since, than doing injury to photography, or to photographers; nor did I suppose for a moment that I should stir up such a strife as I have done. I wished to merely record my opinion of a practice I considered detrimental to the advancement of *photographic manipulations*, and I have neither read nor seen anything, thus far, to change that

* We think this subject has now been touched up sufficiently, and beg our correspondents to let it alone. In Mr. Ayres's *How to Paint Photographs* and in Mr. Anderson's *Skylight and Dark-room* are the fullest instructions on retouching, and we would advise all to read the good sense therein contained, and to follow it.

opinion; "on the contrary, quite the reverse." I expected differences of opinion, but nothing of the spirit shown.

The two photographs sent to me by Mr. Van Aiken, of Louisville, Ky., one untouched in the negative, and indorsed, "According to Snelling," and the other retouched, and indorsed, "All wrong according to Snelling," prove conclusively one point at least of my argument well taken; for they prove one of two things: either that Mr. Van Aiken is not a skilful photographer, or that he is a very careless one. Neither of the portraits are "according to Snelling," because they both fall far short of being good pictures. The management of the light is unskilful, or such a harsh unseemly photograph as the untouched would not have been sent to me; and as to the one from the retouched negative, it is not according to my idea of an artistic portrait, or of truthfulness; it certainly is not "judiciously" retouched, while the pose is decidedly faulty. To be brief, for I could fill a couple of pages of your journal in criticizing these photographs, I pronounce all the most objectionable features of the untouched negative, even to the obtrusive freckles, the result of unskilful photographic manipulation, or culpable carelessness; while the retouched specimen surely does not show the artist. I have possessed photographs of as badly freckled faces, 4-4 size, taken several years back, and not retouched, far superior in every particular to the retouched portrait sent me by Mr. Van Aiken, and much truer to nature. As indicated by these two photographs, I was, therefore, perfectly right in saying, that the practice of retouching tended to the making of careless photographic manipulators, if in nothing else.

Again I say, that I do not deny that "judicious" retouching of negatives greatly improves *some* photographs in some points, but I do deny that it improves *all*, especially in regard to truthfulness. I go farther, and assert that artistic skill is not paramount in the production of truthful pictures. Pictures by our very best artists are more or less faulty in this respect, and as a general rule photography *is* most truthful to nature; but it is only so in the hands of the most careful and skilful photographers.

Color in a picture is not essential to truthfulness where the design is simply light and shade, as in engravings, pencil drawings, and photographs; truthfulness, therefore, simply consists in resemblance; and I have abundant evidence in hundreds of photographs that, in the hands of skilful photographers, who thoroughly understand the management of light and the defects of their lenses, photography is, in the main, more true to nature, both in landscape and portraiture, than pictures drawn by hand. I care not what the "best artists" say on this matter; it is to their interest to depreciate photography, and, consequently, their opinions are not disinterested. I speak from long intimacy with all sorts of photographs made by all sorts of photographers in all parts of the world, and have had hundreds of opportunities of comparing the works of one photographer with another, as well as photographs with engravings, drawings, and paintings—many of the same localities and faces—and my opinions are formed neither from interested motives, nor for want of knowledge of the nature of photographic manipulation, nor from ignorance of the history of photography, nor from bias in favor of any particular system. Egotistical as it may seem, I doubt very much whether any one of my opponents has gone over more ground, or devoted so much time to the history and practice of photography in all its branches as I have, although he may have practiced photographic manipulations to a much greater extent; so that "A Little Photo" has advanced nothing new to me in your November issue of the *Photographic World.*

I am perfectly aware that retouching the negative is almost identical with the discovery of the collodion film, but in those early days only the mechanical—so to speak—defects in the negative were thus doctored. This much of retouching I have done myself, yet I must express the opinion that these causes for retouching should never exist. I repeat, no photographer should be satisfied short of perfection in every department of *photographic manipulation*, and he should devote mind and practice assiduously

to its accomplishment. Until he does he is not truly a photographer. Another point I insist upon as an incentive to photographers to aim higher than at present—whether I am considered an ignoramus in art matters, or otherwise—and that is, we are not to be guided in photographic work by *artists'* ideas of what constitutes truthfulness or taste in portraiture as applicable to photography. Artists dwell in Ideality Hall, and we generally find more of the ideal than the real in their works.

Art is one thing, photography is another: the first is purely art, the last scientific manipulation. The first the product of men's brains and hands; the last the effect of light and chemical action. They are not essentially identical. The first portrays nature as the artist sees it, the last as it is at the moment of reproduction on the glass plate. Because the resultant picture does not meet artistic taste, is no reason in condemning photography for want of truthfulness; neither are the faults of the camera or operator. It is not to be judged by artistic taste, for it is above it, and should take its stand above "Fine Art."

Artistic taste, as at present indulged, is the *creation of the artist*, whose mind is more absorbed in the ideal than the real, and consequently this taste must be more or less tinctured with ideal bias, and inimical to truth; hence the day will come when this taste will be modified, or revolutionized by photography, and, as I have said before, photography will dictate a system of taste, instead of being dictated to by fine art as now. This is a high aim for photography; nevertheless, depend upon it, it is the crown she will wear in the future. I have already seen indications of it in the minds of men. The sooner photographers make up their minds to this, and devote themselves pertinaciously to photographic improvement, the sooner this result will be reached.

Time fails me to write more now on this, to me at least, interesting subject; but I desire to say here, that I regret having wounded the feelings—as the tone of his article in the November *World* indicates—of "A Little Photo." It was far from my thoughts or wishes, and I hope he will receive this as my apology.

## FAREWELL TO THE SUBJECT.

BY WILLIAM HEIGHWAY.

Mr. Snelling will, I hope, forgive my expressing *wonder*, as well as admiration, at the forbearing spirit of his last article on the wellnigh worn-out subject of retouching, in the December issue of the *Philadelphia Photographer*, and I am for my part glad to meet him in his conciliatory expressions by an avowal of regret that I should have given him cause for protest by mistaking an eccentricity of diction for nervous scolding. "Let my disclaiming from a purposed evil free me so far in your most generous thoughts that I had shot mine arrow o'er the house and hurt my brother." I take it all back.

In discussions such as the one in question we are apt to make questionable remarks; carried away by our feelings into a warmth of assertion, the which we regret afterwards, or tempted to the utterance of those pet "smart sayings," which have a sharp edge and the power of wounding both the wielder and the victim. I feel glad that in this discussion we have all escaped these dangers and live, sound of limb and temper, to tilt, perhaps, in other little word battles on some future occasion.

It is not my intention to renew the discussion, or to point out the (as I conceive them to be) inconsistencies of Mr. Snelling's articles, more especially as the summing up of the whole question by N. O. Phyve is, to my mind so pointed and conclusive, so much better expressing my views than any words of mine could do; but while writing I am tempted to express a grievance, in that I am misunderstood by Mr. Snelling when he makes me say that the exclusion of retouching closes the door against all future discoveries of new and beautiful formulæ, &c. Now this I did not say. My argument was that this would be the result if improvements in the manipulation of our art were ruled out *simply because they were not strictly photographic*, the principal objection to retouching, the objection, it appears to me, of jealousy rather than of love of the photographic art.

If a vigorous imagination has caused me to assert anything in this discussion not warranted by Mr. Snelling's words or mean-

ing, I hope to stand excused by him in Hamlet's apology quoted above, and may good will reign all round. To borrow the words of our President—Grant us peace!

## LOOK OUT FOR HIM.

About the middle of last month (Nov.), a man named George Allen came into my rooms and represented himself to have been an operator for Mr. J. F. Ryder, of Cleveland, and that he had a receipt for collodion without bromides that he let photographers have for almost any price (*he scorned the idea of selling receipts*). He said he was looking for a place to start a gallery, and that he was just recovering from an attack of inflammatory rheumatism (but from the sign he displayed, I think it was poor whisky), and would be thankful for any small amount that I might feel able to give him. I gave him enough to pay his way to the next town (Winnieconie) and get his supper. So he gave me the formula (which you will find inclosed), and named over the names of those that are using it in Fond du Lac, Oshkosh, Ripon, Green Bay, and other places in this State. Next morning, while waiting for the stage, I learned that the druggist had bought a diamond the night before, and on inquiry he described the man Allen to me as having sold it to him for $2.50. Then I suspected all was not right, and on looking for mine I found it was gone, and that the one he sold was mine. In Green Bay he stole a focussing-glass from one of the galleries there. The photographers there had raised $10 for him, but after they found out what he had done, they did not give it to him, and he left town. In Oshkosh he stole a large blender worth $1.25. I have not heard about him since he left here, and I thought a few lines to you might save other photographers some loss. Here is his

COLLODION FORMULA (WITHOUT BROMIDES).

| | |
|---|---|
| Ether and Alcohol, . . | equal parts. |
| Cotton, . . . . | 5 or 6 grains to oz. |

Then iodize with the following:

| | |
|---|---|
| Iodide of Ammonium, . . . | 3 grains. |
| Iodide of Cadmium, . . . . | 3 " |
| Chloride of Potassium, . . . | 3 " |
| Hydrochloride of Ammonium, . . | 2 " |

First dissolve the sensitizers in the alcohol, then add the cotton, then the ether; let settle; then it is ready for use.

James Paris,
Omro, Wis.

## OBITUARY.

### A. F. Clough.

We regret to record the death of another noble photographer, whose personal friendship we enjoyed, and whose demise is a cause of sorrow to all who knew him.

Amos F. Clough died at Springfield, Massachusetts, Nov. 29th, 1872.

For the previous year he had been in business in that city, and the change from his outdoor life of former years had seriously affected his health. After a lingering fever came gangrene of the lungs, his entire sickness lasting ten weeks. He was a generous, whole-souled man and much esteemed by those who knew him best. Landscaping was his favorite branch of photography, and his many choice gems from the secluded portions of his native Granite State won him a good reputation. An ardent lover of nature, his great powers of endurance enabled him to secure the rarer scenes of the mountains and valleys in summer and winter, which were ungathered by those of feebler body or less indomitable perseverance.

To him is due in a great measure the success of the expeditions to ascertain the winter climate of high mountains, the occupation of Mount Moosilauke by himself and companion being the first instance of a residence amid the clouds. Those who were wont to read his contributions to the *Photographer*, and profit by his hard-earned experience, will miss him much as one of the workers of the profession, while a large circle of friends deeply mourn his loss as a man.

The day after his death it was just two years since he and his former partner, Mr. Howard A. Kimball, of Concord, New

Hampshire, attempted the ascent of Mount Washington together, and on which occasion our good friend Clough saved the life of his companion by carrying his exhausted and senseless body up the stormy mountain. That act evinced the truly noble, unselfish nature of the man. Those present at our National Convention in Philadelphia, will remember the very creditable lecture given by Mr. Clough at the Stereopticon Exhibition, on the transparencies shown illustrative of his winter on Mount Washington. We shall never forget him. He was buried at his native village, Warren, New Hampshire, where Moosilauke watches over his grave.

## Photography in the Grand Gulch of the Colorado River.

BY WILLIAM BELL.

SINCE my last communication to you I have had some rough experience in this far western country, where few white men have trod, and where the camera never before perhaps has had a "shot" at the wild beauties about us.

I will give you a little idea of our routine work, day by day, that you may know that it is not all ease and comfort.

I arise at 4 A.M.; feed the mule; shiver down my breakfast; mercury at 30°, candle dim, cup and plate tin; my seat, the ground. After breakfast I roll up my bedding, carry it up to the property line to be loaded on the pack mule, water and saddle my riding mule, and by that time it is broad daylight. If negatives are to be taken on the march the *photographic* mule is packed with dark-tent, chemical boxes and camera, and out we start ahead of our exploring party on the lookout for views.

Having found a spot from whence three to four can be had, we make a station, unpack the mule, erect the tent, camera, &c. The temperature has risen from 30° to 65°. One finds difficulty in flowing a 10 by 12 plate with thick enough collodion to make a sufficiently strong negative without redevelopment, and to have a plate ready for development that has not dried, on account of the distance the plate has been carried, and time intervening between sensitizing and development.

These troubles are constant, with occasional gusts of wind and fine white alkali dust, which often covers the plate, while being coated with collodion, as though it had been sifted on it from a dredging-box. Excepting these difficulties, along with the precipitation of half the iron in solution by the addition of the alkaline water (most met with), everything may be said to work as smoothly as could be expected under the circumstances, but the ultimate inspection of the now dried negatives is most disheartening.

They are covered with dust and sand. A blender is used to remove most of it, and the negative is varnished and packed up. Having got all we can here, everything is repacked. Meantime the whole party have passed on and are several miles ahead.

We start again, and repeat our work at another station, which, when done, brings us late in the day, and from eight to ten miles in the rear of the main party. We endeavor now to reach camp in good season, but it is generally about dark and very cold. Arriving in camp, we water, unsaddle, and feed the mules; then to supper; and, if it is not one's turn on guard, make our bed and retire, with our loaded carbine and pistol handy.

WHEELER EXPLORING EXPEDITION,
West 100° Parallel.

## WORKING A SOUTH LIGHT.

WE have the following from one of our correspondents:

Please ventilate the question: *How to work an obstreperous south light?* Below I annex a diagram of my light, the way I am working it now. The cut will explain nearly all. I have to mention yet, that the south top and side-light are blue frosted, very thin though, and that there are spring roller curtains of white muslin running under the blue frosted top-light. My negatives are generally flat, without contrast, and show an inclination to fogging. This I believe is the cause,—too much and too strong light. I am getting the "Bigelow

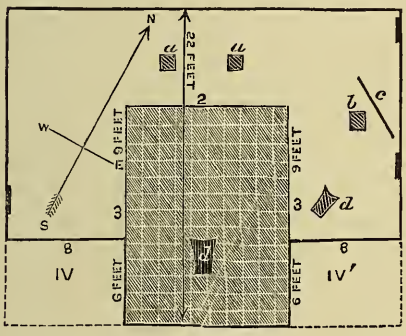
Album," but believe it wont do *me* any good, as I suppose it never was intended for a south light. Any hints in regard to the above, through the *Photographer*, or how to better my work, will be thankfully accepted.

Yours truly,

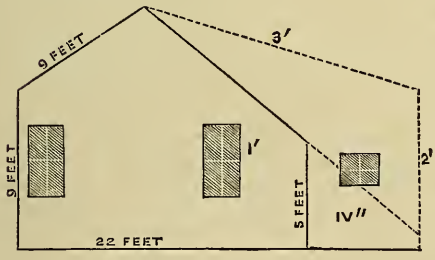
FRANCIS STRAUSS,

York, Pa.

Figure 1 is a sectional view of my light. The top is 11 feet by 15 feet. The sitters are usually placed at *a* or *a*, and the camera at *d* or *d*. A standing figure or group generally to the right. At *b*, I place the sitter for a shadow or Rembrandt effect, *c* being a Bigelow background.




I also add a horizontal view.




If you can, please suggest any improved method of working this.

We know the difficulties of a south light owing to the almost constant shining of the direct rays of the sun upon it.

If any of our readers are using such a light, we would be glad to have further suggestions from them.

## HALL'S FERROTYPE VARNISH.

BY ALFRED HALL.

HAVING made ferrotyping a specialty for four years prior to our great fire, I naturally looked forward with some anxiety for Trask's work on the subject. I have studied it carefully, and must say that on general principles it will be a valuable aid to ferrotypers; but there is one subject, and an important one too, which I am sorry to see treated so wildly; that is, making varnish. He says, Pound up very fine one pound of white gum shellac; lay it in the sun or by the fire until it is thoroughly dry, for when it is fresh and new it has considerable moisture in it, which will cause the varnish to turn a milky color. Take two quarts of the best ninety-five per cent. alcohol, put it in a five-pound bottle, then add the gum-shellac and shake occasionally until the gum is all dissolved, &c.

Then he remarks, very wisely, if the varnish is too thick, add more alcohol. I will suggest that any one trying this formula might as well add two quarts more at first, for a pound of good gum is a plenty for a gallon of alcohol, and will usually be about right if it dissolves well.

Experience has taught me that drying gum in the sun or by the fire does no good; on the contrary, in my estimation, it is an injury.

I must say, if Mr. Trask varnished the pictures that illustrate his book with varnish made strictly by this formula, it is the best illustration of a poor formula well worked that I have ever met with.

I will give a formula that I consider the best I have ever used for ferrotypes, and I used it successfully for a long time. It is not good for negatives, however.

Take one pound of white shellac, very old, if you can get it—the older the better; break it up fine enough to drop into a bottle, add one gallon of ninety-five per cent. alcohol, shake occasionally; if the gum has age enough to have a honeycomb appearance when broken up, it will dissolve without any trouble, and will settle off clear. If you cannot get old gum, take new, put it into a tin can, add the alcohol, shake often until the gum softens; then put the can

into a kettle of warm water, keep it at a temperature a little below the boiling-point, take it out and shake it occasionally; then set it back, and in a little while it will all dissolve and settle off perfectly clear. When clear, filter, and add about two ounces liquor ammonia and two ounces oil of lavender. The ammonia evaporates so freely it will be necessary to drop a few drops from time to time into the bottle you are using from.

## BOSTON CORRESPONDENCE.

THE members of the Boston Photographic Society assembled last evening at the studio of Mr. J. W. Black. In consequence of the many benefits this Association have lately bestowed upon the fraternity, numbers of operators from all sections of the State attend the regular monthly meetings, which the members seem determined shall be most interesting, and which shall tend to advance the art and artist thus aiding in the great work of photography.

Mr. Bowers, of Lynn, wished to know if it was the practice of the Boston artists to get their pay in advance. All seemed to think that course was most proper, and should be adhered to in all cases if possible.

Mr. F. C. Low (the President), wished to know how the members worked in relation to giving out *proofs*.

Mr. Foss stated he never toned them, and only *slightly* retouched the negative.

Mr. —— stated that Mr. Whipple toned the proofs, but afterward gave them a *dose of hypo*.

One member stated he had understood that Mr. J. W. Black *finished* several, and let the customer select. As Mr. Black was not present it was not known how he worked. A long discussion ensued in relation to the matter, in which Messrs. Foss, Burnham, Phillips and others took part, after which Mr. Martin wanted to know what was thought of bromide of ammonium in collodion.

Mr. ——, of Whipple's, stated that it was his belief that bromide of ammonium should always be used, for he thought it gave more intensity of the *right kind* when used in connection with bromide of potassium than any other.

Mr. Phillips, of Lynn, had used it for twelve years, as follows: bromide of ammonium, one grain, with the addition of three-quarters of a grain of bromide of cadmium.

Mr. Smith stated that bromide of ammonium, when used in combination with iodide of sodium, could not be excelled. Messrs. Burnham, Low, and many others gave it precedence; but be careful and don't use over one grain, otherwise you get streaks of lightning.

Mr. Charles Brown wished for information on the dodge of using a piece of paper pasted on the inside of the back lens instead of using the ordinary central stop.

Mr. Hallenbeck stated that the lens when so stopped gave much more depth with but small increase of time, and often when the paper was not too large no more time was required. Several had found much benefit from that mode.

Mr. Burnham stated he had reduced the time of exposure when working his mammoth Voigtlander over one minute by having diffused light in his camera box. This remark woke up all the members, and a very interesting conversation ensued in which Mr. Burnham seemed to have the best of it.

Mr. Foss coinciding with Mr. Burnham, it was ordered that the members line their boxes with white cardboard, experiment, and report at the next meeting.

Mr. Low inquired if the architect of the Coliseum could stop persons from making negatives of the big house, as he had understood he had attempted to do.

Mr. Smith had made a large number of negatives of the building, had received twelve legal notices to *stop*, but somehow he could not and would not stop, but should make as many as he pleased. (Immense applause, and then the band played.)

Mr. Burnham stated no one could stop him from taking a picture of land in front of the Coliseum, and he could not help it if the Coliseum filled most of the plate *as a background*.

In relation to the subject of those who had entered the lists for experimenting on the sitter furnished by the Society, Mr. Burnham, the committee stated, had ob-

tained the best chemical effect, and Mr. A. Marshall had produced the best position (Mr. Burnham is the gentleman who was awarded the fifty dollar prize by the editor of the *Philadelphia Photographer* some time since); the report caused much interesting comment from many who had entered the list of experimenters. I should state that many of the Boston operators took no part in the friendly contest.

Now a few remarks about some of the Boston artists.

A new studio has been opened by the Balch Brothers (who hail from Baltimore and New York), and if one is to judge by the specimens they exhibit, the Boston people are to be favored with many gems of art from the hands of the Brothers. Noticeable in their pictures is the remarkable depth and roundness of the figure. Even in the deepest shadow is observable that wonderful stereoscopic effect which all desire to enrich their negatives with, and here let me say that effect is only obtainable by using a proper lens, in connection with the above. I will state many have expressed their regret that Mr. Howell had not a proper lens when making the negatives for the December number of the *Philadelphia Photographer*. All concede to him great artistic talent as chemical manipulator and poser, but regret that his splendid production lacked the great and essential quality which is so observable in most of the Boston galleries, *i. e.*, *sphericity* or stereoscopic effect.

Mr. Frank Rowell is doing a heavy business, and as usual his productions are unsurpassed.

Mr. Foss has enriched his studio with many elegant specimens, and his reputation as a first-class artist is established among a class of people who pay good prices, and his patronage is large.

Mr. Ritz (who is now connected with the gallery of A. N. Hardy) is daily making most exquisite work, and thinks no one can fail to do the same if they have proper tools. By the way Mr. Hardy has had to increase his facilities for doing his work by the addition of a most beautiful and useful 11 x 14 American Optical Company camera box, and a No. 6 Voigtlander lens, which Mr. Ritz knows how to handle, and with the above aids he uses a good supply of brains (at least that's what O'Neil calls it).

Messrs. Black and Whipple are doing as usual a large trade, and their work is too well known for me to speak its praise.

Mr. Burnham is astonishing the boys with wonderfully grand effects on 17 x 21 plates. In conclusion, I will state business is opening and all seem to be making money, so for the present I must leave the subject for some future time.

I should like to tell you of a special meeting which was convened at the Province House during the week of the great fire, but am not in possession of the notes, and none of these present will give me a copy; but that there was matter of great interest you may believe, for Mr. J. W. Black was elected president, Mr. Roach, from Anthony's, entertained the members with many sketches of remarkable adventures in California and *Coney Island;* also, Messrs. Udell, of Hartford; Hurd, of London; Baxter, from Charlestown, gave very interesting lectures on *spiritualistic* matters. Messrs. Barry and Childs gave experiments in photography, and the meeting adjourned at — A.M.

J. H. Hallenbeck.

## PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

Stated meeting held Wednesday, December 4th, 1872; the President in the chair.

The minutes of the last meeting were read and approved.

The Room Committee reported that the portrait of the late Vice-President, Mr. Hugh Davids, had been framed and hung on the walls.

The President said that a negative of Mr. Constant Guillou had been procured, and that a solar print would be made from the same, and framed as soon as possible.

Mr. Charles Barrington was elected to membership.

Under the head of deferred business, Mr. Moore made some remarks relative to a lantern exhibition to be given by the Society. After some discussion as to the room,

light to be used, &c., Dr. Wilcocks offered the following resolution:

*Resolved*, "That a committee of three members be appointed to arrange for an exhibition of the magic lantern, to be given under the auspices of the Photographic Society of Philadelphia, at such place and time as shall meet with their approval; which particulars shall be notified to the members."

The resolution was unanimously adopted.

The Chair appointed for this purpose a committee, consisting of Messrs. Wilcocks, Corlies, and Pepper.

The President said that the exchange prints for the Photographic Society of Paris were about to be forwarded, and that if any of the members felt disposed to contribute, to please send in their prints as soon as convenient.

The President remarked that having had occasion to examine recently a large number of dry plates prepared abroad, he had been impressed with the fact that the plates were often improperly packed for transportation by the makers; the plates frequently coming to hand in a damaged condition. The Secretary, in corroborating the remarks made by the Chair, said that in unpacking some plates prepared by the Liverpool Dry Plate Company, he had found small pieces of glass abraded from the edges of the plates (which had not been roughened previous to coating), scattered over the film, and that this caused very perceptible scratches in the picture.

The President having remarked that he had obtained some good results on some emulsion dry plates prepared by Mr. John Carbutt, the latter gentleman said that he considered it imperative, in preparing an emulsion, to use a good cotton, and to keep the bromized collodion some time before adding the silver. In the case of the emulsion plate recently tried by the President, the bromized collodion had been made in February last, and the silver added in August. In regard to a non-actinic backing, Mr. Carbutt thought that when the film was very dense, none was required. Mr. Tilghman remarked that Major Russell, of England, considered a backing always necessary. Mr. Carbutt also remarked that he had found a chloride useful in the collodio-bromide emulsion.

Mr. Pepper exhibited one of Negretti & Zambra's small tourist's cameras, with walking-stick tripod.

After adjournment, some exceedingly fine pictures of live animals and birds, by Mr. Schreiber, were exhibited in the sciopticon.

E. Wallace, Jr.,
Recording Secretary.

## THE INDIANA PHOTOGRAPHIC ASSOCIATION.

For all that has appeared in our photographic publications for some months past, some may have inferred that our Association was *non est;* but now—having the honors (?) of the secretaryship again thrust upon me—I am happy to be able to say that our meetings never fail for want of a quorum, and are usually well attended and constantly becoming more and more interesting, practical, and profitable.

On Wednesday evening, December 4th, the regular monthly meeting was held at Harry Fowler's gallery. Meeting opened with our newly-elected President, Fowler, in the chair, with a fair attendance of members, together with a number of our wives and sweethearts.

On motion, the calling of the roll was dispensed with. Minutes of November meeting were read and approved. The committee appointed some time ago to canvass the propriety of this Association holding an Exposition about the holidays reported that, owing to several adverse circumstances, they were of the opinion that it would be inexpedient to attempt a thing of the kind at present. Report concurred in and committee discharged. Committee appointed to audit reports of the Secretary and Treasurer asked and obtained further time. Mr. Claflin moved an amendment to the constitution to the effect that our officers shall be elected for the term of one year instead of six months, as at present. Not agreed to.

On motion, a recess of a few minutes was had for the purpose of examining specimens brought in by the members, but especially those brought by Mr. Adams for the purpose of criticism. Meeting being again

called to order, these pictures were criticized closely and commented on by Messrs. Elliott, Claflin, Judkins, Murdock, and Dryer, and lastly by Mr. Adams himself. Of course there were some differences among the critics, but on the whole there was much more unanimity than usual, and the time thus spent was perhaps the most interesting and profitable of any part of the meeting.

The *Hoosier Heliographist* was then read by the editor, J. Perry Elliott, and apparently enjoyed by all present.

The President appointed Messrs. Judkins and Elliott to act with the Corresponding Secretary as Committee on the "Progress of Art," and Mr. Claflin to bring pictures for criticism at our January meeting, and Mr. Dryer to read a paper at the same meeting.

Adjourned to meet at L. D. Judkins's gallery on the evening of the first Wednesday in January, 1873.

J. Perry Elliott,
Secretary.

## PHOTOGRAPHIC ASSOCIATION OF THE DISTRICT OF COLUMBIA.

The second stated meeting of this Association was held at Mr. Pulman's gallery, Tuesday evening, Dec. 3d, 1872. After the reading of the records of the last meeting the Secretary read a letter received from E. L. Wilson, Editor of the *Photographer*. Three new members were admitted to the Association. E. J. Pulman read a poem entitled "Two Pictures, Rembrandtish and Otherwise." Mr. Ward, the President, read a very interesting article on the silver bath; after which the effects of glue and glycerine in negative baths were discussed.

Mr. Bates wished the opinion of the members as to the cause and cure of nitrite of silver in the bath.

An improved form of dipper was explained for immersing plates with the film side down; and several beautiful specimens of the Woodbury photo-relief prints were exhibited by E. J. Ward, which were admired, and the process by which they were made was explained and discussed.

The lead forms, or "intaglios," from which they were printed were also exhibited. The Association adjourned to meet at Alex. Gardner's gallery, Jan. 7th, 1873.

E. J. Pulman,
Secretary.

## Two Pictures; Rembrandtish and Otherwise.*

BY E. J. PULMAN.

A Photo, at the close of day,
Sadly homeward took his way;
His steps were slow, his looks were dull,
Of emptiness his pockets full.
With elbows out, dishevelled hair,
He was the picture of despair.
In fact he was extremely blue,—
All seemed to him of sombre hue.
From morn till night it was his fate,
Not to labor, but to wait;
For not a soul all that day through,
Had given him a thing to do.
And this was not occurrence rare,
For of such days he'd had his share.
His rooms untidy were filled with dust,
His camera-tubes were covered with rust;
Plate-holders broken, needing repairs,
Everything showing a bad state of affairs.
Forgetting the fact, which all of us know,
That forward or backward we ever must go;
That we cannot stand still if we would;—
He had not done all that he could
To keep himself "up" in the art.
(By the way, a most important part.)
Thinking he knew all that was to be known,
Or what he did not was best let alone,
And drawing upon his wisdom in store,
He was content and wanted no more.
There is an old saw runs something like this,—
"'Tis folly t'be wise when ignorance is bliss."
But from blissful dreams there are who wake,
And find somewhere a sad mistake.
And our Photo, as he trudged along,
And hummed to himself a doleful song,
Was troubled much and bothered more,
By thoughts that came to him o'er and o'er.
Why were things thus? What was the cause?
'Twas this that made our hero pause.
His song unsung, his voice was hushed,
As through his brain these stray thoughts rushed.

* Read before the Photographic Association of the District of Columbia, Dec. 3d, 1872.

Mr. A. and B. and C. and D.
Were busy as men could wish to be;
Were doing well, the fact was plain,
While he for trade had prayed in vain.
They read the *Photographer*, 'twas true,
Which he had oft despised to do;
And other journals and books by scores,
While he had counted all such things bores.
They searched for knowledge day by day,
While he content had gone his way.
Their trade increasing with their years,
And his growing less—not so his fears.
There is a saying somewhat clever,
That "It is better late than never."
That this is true I don't deny,
Nor does our Photo. I'll tell you why:
He felt that "facts are stubborn things."
(The same's been felt ere this by kings.)
He bit his lips in deep surprise;
Confessed at last he'd been unwise.
Made a firm resolve that come what would,
He'd search for knowledge when he could,
Use every means to improve his art,
And go to work with soul and heart.

One year has passed, and mark the change.
'Tis wonderful, though 'tis not strange.
Enter his rooms. They are neat and clean,
And order everywhere is seen.
With taste his pictures are displayed.
They are improved—so is his trade.
So is our hero, in heart and head,
And many are the books he's read.
He don't despise the studious man,
But studies himself whenever he can.
You ask him now if it will pay
To dig for knowledge—see what he'll say.
Just mark his words as he replies,
"There's nothing lost by growing wise."
His trade increases day by day,
And none displeased now go away.
He studies improvement wherever he can,
And is fast becoming a popular man.
And looking back from *the now* to *the then*,
Shuddering he thinks of "what might have been."
Looking on from *the now* to *what is to come*,
He feels that yet for improvement there's room.
The wishing to know, insatiate desire,
Urges him on to explore and inquire.
He says, in a note just written to me,
He's thinking of joining the P. A. of D. C.



## THE NITRATE BATH.*

BY E. J. WARD.

It is not my purpose, in the few remarks which I shall make this evening, to say anything in regard to the chemistry of the nitrate bath, nor to criticize the various formulas which have been given for its preparation, but merely to give a chapter from my own experience, with a view to bringing about a discussion which it is hoped may result in a better understanding of this most useful solution.

I prepare my bath by adding to a forty-grain solution of nitrate of silver a sufficient quantity of caustic potash to produce decided alkalinity. I then sun the solution six or eight weeks, after which it is filtered, and is used without acidifying or iodizing. I do not find it necessary to leave a collodionized plate in the bath, as I never fail, after preparing the bath in the manner described, to secure a good negative from the first plate immersed. I have used this bath for a number of years, and have found it, when used with a suitable collodion, to work quicker and to give clearer and more brilliant negatives than any bath I have ever employed.

Some time ago, having a number of dimly-lighted interiors to photograph, I was advised by a photographic friend, who had been very successful in photographing interiors, to use glue in my bath to prevent drying of the film. His directions were to make a neutral bath and to add glue in solution—I do not now remember the quantity—after which the bath was to be sunned for a week. This bath answered the purpose in no way better than the one first described—the tendency of the one to dry being just as great as the other, and a careful analysis failed to show the slightest difference, chemically, between the two; from which I conclude that the sunlight precipitates every particle of glue and leaves the bath just as it was before its addition.

Glycerine has also been recommended to be used in the bath to prevent drying of the film and to give increased sensitiveness. I

* Read before the Photographic Association of the District of Columbia, Dec. 3d, 1872.

have given this bath a careful and patient trial, and must say that in my hands it yielded negatives greatly inferior to my own bath, while the difficulty of obtaining negatives free from the usual imperfections attending long exposures was much increased. Nor is this surprising, for those peculiar curvilinear markings which give most trouble in plates which have received a long exposure are not due to *drying* of the film, but to *unequal* drying, which results in a coalescence of the silver on certain parts of the plate, and to this coalescence is due the objectionable markings. The oiliness of the glycerine seemed greatly to aggravate this difficulty. I added the glycerine to a number of baths—to one new bath and to two or more old ones which were in excellent working condition—with the result already mentioned in each case.

My dissatisfaction with the glycerine bath has, however, led to some interesting results which I have not seen mentioned in any of the photographic journals. On account of the faults I have mentioned, I concluded to boil my glycerine baths down. So I placed one of them in an evaporating-dish, and with a small gas-stove proceeded to boil it down. When it had nearly reached the point of fusing, I was called away for a moment, and on my return found the room densely filled with smoke from the dish. I immediately removed the dish, and was much surprised to find a beautiful coral-like deposit in the bottom, of a brownish color and perfectly dry.

This I attributed to the glycerine and, of course, supposed that I had fused silver beneath the crust. Imagine my surprise when, after adding water and thoroughly breaking up the mass, my hydrometer indicated no silver, and my still greater surprise, when on examination I found this mass to be pure metallic silver.

To satisfy myself that this was not merely one of those freaks which we sometimes meet with in our practice, I repeated the experiment a number of times, and always with the same result.

The metallic silver thus obtained was dissolved in nitric acid, and yielded nitrate of silver of excellent quality.

May not this be turned to account? I have not yet determined the quantity of glycerine necessary to reduce a given amount of silver, but intend to do so, and this, together with the rationale of the phenomenon, may be made the subject of another paper.

## SECRETARY BAKER'S WELCOME TO BUFFALO.

Brothers of the N. P. A.:

It is written that "the first shall be last, and the last first;" that "the stone which the builders rejected, is become the chief stone of the corner;" also, "in these days is this Scripture fulfilled in your ears."

At St. Louis last spring, Buffalo was one of the rejected applicants for the next place of our meeting. Much as some of us here desired to have you come, we acquiesced in the voice of the majority, and "it was all right." Quite lately an unforeseen circumstance arose, explained by our friend Kent, which made a change of base necessary, and the Executive Committee applied to us saying, "Can we come to Buffalo? You must say Yes; for many reasons it is desirable to have the place of next meeting in your locality."

There could be but one reply to so urgent a demand, and the photographers of Buffalo, one and all, say,

Come!

The time is short, and has been shortened at our request from July to May, but if every member of the National Photographic Association will do what they can, at home, in getting some of their best work ready to bring (don't send), and in getting their business in shape so that they can come, we will, by mutual co-operation, make it the best meeting of the six.

Our Rochester friends will transfer all their zeal and preparations to Buffalo.

Commodious halls are already engaged, the hotels will furnish you comfortable accommodations at reasonable prices, we have by far the best travelling communications, either land or water, of any point in this locality, and we only want your hearty selves to make it more than a grand success.

Full particulars of arrangements and

progress will be duly set forth in this journal.

From the States and from Canada, from the Old and the New World, come all.

The photographers of this vicinity again bid you—WELL COME !

W. J. BAKER,
Local Sec. N. P. A.

## A WORD OR TWO FOR BUFFALO.

THE communications of Messrs. Kent and Baker to the Executive Committee will take many of our readers by surprise. All we can say is that the change is inevitable and unavoidable. We do not think it is to be regretted, however. We could not go to a better place than Rochester, but Buffalo is just as good, and we shall have just as good a time there. No better man in the country could have been selected for Local Secretary than Mr. Kent, but Mr. Baker is equally good, and one of the most zealous and warm friends the National Photographic Association ever had. See what a "*welcome*" he gives us. We do not therefore lose one bit by the change of place, and change of secretary in chief.

As to the change of the time, that is also favorable. We shall be enabled to secure better terms with hotels and railroad companies than we could possibly secure in June or July, when the season of summer travel is in full blast, and we think quite as many or more can attend in May as later. Let us all then do everything in our power to make the affair all it should be. Those who live near Buffalo should aid Mr. Baker all they can, and we look for a large accession from Canada. Come over, brethren ; we are ready to receive you. One and all then, *Onward to Buffalo !*

The announcement to exhibitors and other information will be in our next issue.

## ART STUDIES FOR ALL.

INTRODUCTORY.

THERE is one subject to which we would like to devote the whole of our coming volume, if circumstances were so that we could, namely, to the pounding, and punching, and infusing, and instilling, and impregnating, and impressing of a few art ideas and principles in and among and upon the photographers of these United States. Above all others, that is the one thing they want, and we are not sure but photography would make progress if we left all other subjects, and devoted our whole magazine to the dissemination of art knowledge for the next twelve months. We therefore give fair warning, that in our next number we shall commence the work of bringing to your minds a few humble thoughts every month, which we hope may *lead* you to greater attention to this all-important subject. We fully intended to begin it now, but the pressure upon us for space prevents more than this brief introductory. We *do* want to get you interested in the matter. The American negative and the American print are now equal, as a rule, to any made in the world. But when we come down to the matter of lighting and posing, the arrangement of the figure, and of the accessories, and the sundry little niceties of idea and design, which do so much towards making up a pleasant *picture*, the American photographer has much to learn. We therefore ask your *attention* to this subject, and that you carefully study it with us as we go on. In our next number we shall begin the work in earnest. Meanwhile give it some thought.

## MATTERS OF THE

THE next Annual Convention and Exhibition of the National Photographic Association will be held in Buffalo, N. Y., beginning Tuesday, May 13th, 1873, instead of in Rochester, N. Y., in July. Mr. W. J. Baker is the newly appointed Local Secretary.

THE Executive Committee would be glad if members in arrears would pay their dues at once to Mr. Albert Moore, Treasurer, No. 828 Wood Street, Philadelphia. This is

positively necessary, as the committee needs funds to further the interests of the coming exhibition.

To become a member of the National Photographic Association costs $4; $2 for entrance fee; $2 for one year's dues, in advance; employees, half rates; life membership, $25. Apply to Edward L. Wilson, Permanent Secretary, Seventh and Cherry, Philadelphia.

Life Members. — One hundred are wanted at once to put the Association on a fair business basis. The last addition to the list is Mr. Edward Cope, Philadelphia, Pa. You can aid the Association very materially by becoming a life member *now*.

The following have been added to the veteran list since our last issue: H. R. Marks, Austin, Texas; William Snell, Jersey City, N. J., 1844.

As the Annual Convention is to be held so soon, the issue of the new constitution will not be delayed much longer. See that your dues are paid *now*. Life members take precedence.

The National Photographic Association price list very soon. The Secretary asks your patience.

Mr. James Howard, of Plattsburg, N. Y., a gentleman who held back from the National Photographic Association for several years because he had no faith in it, became a member at St. Louis. He has been travelling out West recently, and on his return says: "I called on many of our fellow-members, and all were glad to see me and friendly. I felt that the National Photographic Association was a sort of *Masonry* that at once made me at home with all whom I found to be members. It is a 'big thing,' and through it many have found fast friends they never would have had without it."

## PENNSYLVANIA PHOTOGRAPHIC ASSOCIATION.

The stated meeting of the Association was held December 16th. Several persons were proposed for membership, and Mr. E. B. Brown was elected to membership. After considerable routine business Mr. B. Frank Saylor made some interesting remarks on the acceleration of exposure in the camera. He was followed by Mr. Schreiber, who made some interesting statements. Owing to a change of secretaryship, we received the minutes too late to insert a full report of the meeting. Mr. Shoemaker exhibited a china cup with his own picture burnt in on the side of the cup.

The following were elected officers for the ensuing year: President, Albert Moore; Recording Secretary, W. L. Shoemaker; Corresponding Secretary, Edward L. Wilson; Vice-Presidents, B. F. Saylor, H. F. Smith, David Lathrop, and W. H. Whitehead; Executive Committee, Edward L. Wilson, G. Schreiber, William Taylor, John Carbutt, and C. M. Gilbert; Treasurer, John R. Clemons.

After further routine business, the meeting adjourned.

## THINGS NEW AND OLD.

BY R. J. CHUTE.

(ROLAND VANWEIKE.)

Old names in a new relation. I have no further use for a *nom de plume*, and will wish the gentleman with a Van to his name a happy New Year, and trust that he and Focus may find new fields of usefulness, and continue diligent students in everything that pertains to the art of photography.

Among the things new and old that have recently come under my notice, is a *tar-bath*, or, rather, bath-holder. Many are obliged to use small baths, and work at considerable disadvantage, on account of the expense of large baths of suitable material. To those who have been in the habit of using a small bath a large one is a luxury, while to those who make large work it is a necessity; and a cheap, safe, durable bath is an item not to be despised by any.

I claim nothing particularly new for the tar-baths, as they are in use among the best photographers; but as little has been said of them, a little explanation may be of benefit to some struggling brother photographer.

A box is made, of the size and shape de-

sired, of light pine lumber, the frame, forming the bottom and sides, being about 1½ by 3 inches, if the bath is to be large enough for an 18 x 22 plate, have the covering of matched boards not more than 3½ or 4 inches wide. These are nailed or screwed to the frame pieces, and when properly trimmed is ready for the coating of tar—*no feathers!*

Common tar, such as is used by roofers, answers the purpose well, though to use it alone it may be too hard and brittle; but it can be softened, or made slightly elastic, by the addition of coal tar; the proportions to be used can best be determined by heating it up, and trying it on a stick to see when it seems of the proper consistency. The coal tar can better be added before heating, as an after addition is apt to cause it to boil over. An iron kettle is best to heat it in. When the tar is ready it may be poured into the box with a dipper, flowing one side at a time, and keeping it in a horizontal position, after draining out some of the surplus, till it cools. The ends may be treated in the same manner, when it may be set in an upright position, and enough will run down to cover the bottom. As a complete protection against any wet or dampness affecting the wood-work, it is best to coat the outside also, covering it completely.

This makes a bath, at a very slight expense, as good as those that cost ten times as much. It is perfectly clean, has no injurious effect on the silver solution, is light to handle, and will not break.

My experience with one I am using is so satisfactory that I have no hesitation in recommending it as equal to the best. The tarring operation is best performed out of doors, as the fumes are not the most agreeable, though they may be a good disinfectant of diseases; not diseases photographic, however, except in the manner I have described, and in reference to thinly lined pocket-books.

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Long winter evenings and stormy days give one time to read up things new. Get a few books from our catalogue and read them thoughtfully, and we guarantee a rich return.

## OUR NOBLE SELVES.

BY WILLIAM HEIGHWAY.

There is not a more touchy subject—not even excepting that troublesome retouching question, which has so sorely touched the temper of some of us recently—than anything to be said, not quite complimentary to "ourselves," and as it is next to impossible to say much that *is* complimentary of the workers in our art, I fully expect to draw down on my devoted head maledictions loud and deep, that I should dare to venture criticism on the actions of the high priests of the mysteries of photography, but daring all the dreadful consequences likely to ensue, braving the wrath of the all-sufficient self-satisfied ones, the scorn of critics, and the anathema of the entire profession, denounced, perhaps, and cast into outer darkness, more horrible than the gloom of the dark-room; defying all these terrors, I will endeavor to paint some of our more glaring faults, in the hope—a vain one, I very much fear—that one conscience may be touched, one operator successfully operated on and led to turn from the error of his ways, to improve, as far as his individual influence goes, a lamentable state of things.

We lack ambition! With many of us, what does it matter as long as we get the customer out of the place? In some cases, it almost amounts to taking the unfortunate sitter by the collar and hustling him out of the gallery. Is the pose good? Horrid! The lighting, how is that? Abominable! The manipulation, surely that is good? No! At least passable? Really, cannot say that it is even passable; but get out, it's good enough. If the ignorant public like such work, what does it matter? Well, I venture to think it does matter, not much, but more and more every day, for there is a leaven working; people are not as ignorant as they were, and one of these fine days you will find that unless you strive to improve, the people you so much despise to-day will pay you back in your own coin, by scorning your crude and unprogressive work. Too much of our photographic work is done by the measure, like bricklaying and carpentering, though, perhaps, I malign many conscientious and painstaking

mechanics who do their "level best" thoughtfully and to the height of their skill, while many of us kill our work by the lack of skill and thought bestowed upon it.

We sorely lack brains! But then, roars a great chorus,—brains are not to be bought or acquired. Sheep's brains may be bought, but that's a sheepish remark. A power of thought may be acquired, a habit of observation may also be acquired, and these go a long way to make up a deficiency for which nature is responsible, not you; then you are not blamed for the lack of brains, but for placing yourself in a position where your sad want is patent to all. The knowledge why you get a fine piece of work (by accident!), and with the knowledge, why you get it; how to repeat the accident, with the reasons of failure, the means of avoidance in the future, all this goes to make up for the want of brains, and these faculties are to be acquired; their possession indispensable.

We lack education. This want is, I think, at the root of all photographic ills. Education gives us a love for study, develops and sharpens all our perceptive faculties, and the lack of it evidences an existence without any desire to know any more than we know, and the rusting of many faculties from disuse, that we find it difficult, sometimes impossible, to burnish them up for use when we require them; these same qualities thus thrown away are just those required by our profession. No wonder, then, that there is so little thought, lamentably so little ambition, and so little desire to improve by studying works on, or relative to our art. I have heard it urged that education is not so necessary after all; that it is possible to get on as a photographer without it, and several first-rate operators who can hardly sign their names, while a book is to them nonsense, brought forward as argument; this is in reality hardly worth answering, for what does their skill amount to? Knowledge of a particular branch under certain favorable circumstances, just as a steam engine set in motion in the right direction does the work set it so long as the engineer is near the engine. These operators, it will be found, are quite lost out of their own dark-rooms, quite in a fog, without the sustaining influence of their own master (hard word!) to whom they are as the automaton to a master hand. There seems to be a great deal in this that is severe and harsh, and I shall no doubt be accused of great and unwarrantable presumption in so clearly expressing my opinions, but I am sure that nothing in this paper can apply to my reader, *from the fact that he has this journal in his hand;* but for this assuring thought I should feel very much as if I were firing a powder magazine instead of writing to a photographic magazine. Out of this want of education, too, springs a lack of polish and refinement, necessary to one coming into contact with those who possess culture and good breeding. It is such a grievance with sitters, and is withal so just a complaint, that they are roughly treated, that operators are so rude and ungentlemanly. Making all allowances for the trials and vexations of the position, the aggravations, and even the insults endured at the hands of *some* tough customers, it surprises me to observe how much some photographers go out of their way to worry their subjects, subjecting them to all sorts of petty annoyances; how much the sitter has to put up with in a photographic gallery—the place where everything should be nice (I don't mean carpeted and splendidly furnished *work-rooms*), and the behavior of the operator gentle and soothing; the customer very often finds instead, everything that is irritating and disgusting. I don't say this on behalf of the customer; they say it for themselves, but for the sake of "ourselves." Gentleness and politeness are virtues, which are, like mercy, doubly blessed, blessing him that gives and him that takes. There are certainly sitters rude and boorish as the worst of us, when it is a case of diamond cut diamond. Even with these, politeness is not thrown away, for they are forced to respect one who respects himself.

We want art education. There is such a fearful lack of art feeling in photography that it has wellnigh passed into a byword. The sitter is pushed into a chair, the head-rest jammed up against the head, the unfortunate man is ordered to put on a nice expression, and the tone of voice in which he is told not to move suggests the threat—or I will shoot you—of the Western operator,

who took the one step further by producing his revolver; the camera is levelled at the expressionless or horror-stricken countenance, the time ticked off—bang!—all over! No regard to good or bad points of the face, light, anything, but to get it over.

Don't think I lack good nature, or that I wish to sit in judgment against you, and take delight in denouncing you with a smug thankfulness that none of these faults are mine. I only desire—and modestly too—to point out some of these, *our* failings, that knowing them we may do away with them. The time of year is a good one for turning over a clean, new leaf, *leaf*ing our old faults behind. With all the kind feelings engendered by the loving influence of the season of good will toward men, allow me to wish you a happy and prosperous New Year.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*New Method of Producing Albumen Transparencies—American Photographic Literature.*

*New Method of Producing Albumen Transparencies.*—In a recent communication, in referring to improvements on the production of enlarged negatives I mentioned the fact, that upon the quality of the transparency the excellence of the enlarged negative mainly depended. The remarks I then made have received curiously striking confirmation in the exhibition of the Photographic Society just closed. The display of photographs was very good in every branch, but general surprise was excited by the extraordinary excellence of the enlargements. On inquiry it was found that the prints in question were produced from enlarged negatives, and that in all instances the especial excellence was due to the principle to which I referred in my last communication, namely, the importance of producing the transparency by contact printing, and avoiding in it the coarse granular texture inseparable from an iron developed image on collodion. The negatives of some of the finest examples were produced from carbon transparencies obtained by contact printing, and some others equally beautiful were exhibited by Mr. B. J. Edwards, whose method is a secret, which I understand was purchased and practiced by Mr. Napoleon Sarony, of New York, and Mr. Notman, of Montreal. The excellence of the results is confessedly due to the quality of the transparency, which is admitted to be the result of contact printing on an albumen film. The secret consists in a simple mode of preparing albumen plates, the ordinary albumen dry process being, as is well known, a very troublesome method to work. A correspondent recently sent me a sample method of working by which he obtains fine albumen transparencies, which, although probably not the same as the secret method in question, may prove an efficient substitute. My correspondent, Mr. Willes, of Scarborough, says that he has worked the method in question for several years with much success. I will give his method in his own words. He says:

"I have done fine pictures for several years as transparencies on a film of albumen, both for lantern slides and for enlargements, on opal glass and paper, which have proved most satisfactory; and from the same albumen transparency I have done enlarged negatives to 24 x 18 inches that could scarcely be detected from a direct print from a direct negative of that size. It is not my intention to make a secret of the mode I adopt to produce a suitable transparency for such an enlargement. It may or may not be used by others for the purpose; but if it is, I am not aware of it. Here is the method of working, and I am sure that any person who will try it will find it very simple and easy to do.

"Make a solution of India-rubber in benzole about the thickness of thin collodion; place it in a dish, and float a sheet of paper on it for about half a minute; then hang up to dry; then it is ready to be albumenized the same as albumenized paper is usually done; or, to make the thing more plain, take the white of several eggs, and to each white put seven or eight grains of chloride of ammonium dissolved in as little water as possible, and add to the albumen; then whisk up to a froth, let stand for several hours, then strain or pour the clear off into

a flat dish, and draw or float the India-rubber side of the paper upon it, taking care to avoid bubbles. This must be done in a warm room. In a short time it will be dry, when it may be put on one side until wanted, or may be used at once. All that has to be done then is to sensitize it in the usual way, the same as any other albumenized paper, and print it under a negative; only it must be printed four or five times deeper than an ordinary print—in fact, until it is nearly black all over. Then it may be washed in the same way as any other prints to remove the free silver, and while still wet, before toning, place it face downwards on a clean glass free from specks, and take an India-rubber scraper and remove all the water possible, or until all bubbles are removed. Then let dry, and the paper and India-rubber may then be removed by dipping a tuft of cotton-wool or a piece of soft rag in benzole, and rubbing for a little time on the back of the paper, which may then be stripped off, leaving the albumen film on the glass, which may then be toned and fixed in any of the known baths. But the fixing solution should be much weaker than that used for ordinary prints, as it would reduce the print too much.

"It must be remembered that the albumen film does not look so dark on glass as it is on the paper by a long way; that is why prints are made so black when printed in the frame. The transparency done in this way will be found to be a much finer film than any other method; or by development, this film will enlarge six or eight diameters more than a developed albumen film, as all developed films are more or less granular.

"It will be seen that there is only a little trouble in albumenizing the paper, which can be done and put on one side until wanted, and made sensitive at the same time as the ordinary paper for printing, so that the whole of the process is very simple, and there is not the slightest doubt that it produces one of the smoothest films known for enlargements, or for making reversed negatives for the Woodburytype or Heliotype processes. It is a much finer film than one printed and developed on albumenized glass.

"In my hands the next best method is your collodio-chloride process, coating the India-rubber paper with it, and printing and transferring the film in the same way as the above. But care must be taken to watch the fixing and toning of the film when on the glass, or it will reduce too much, as it reduces sooner than the albumen film. On the whole, the albumen worked as I have described, will be found to be the best for the purpose of making fine enlargements, and if your readers try it I am sure they will find it to be all that can be desired."

*American Photographic Literature.*—I cannot close these *Notes* without congratulating American photographers on the issue of such a valuable addition to the literature of the art as Mr. Elbert Anderson's "Skylight and Dark-room," which, in my personal estimation, is one of the most useful books which have yet been issued in connection with the art. The style is so clear and so captivating; it deals with just the points on which the reader is most desirous of information; it is so full without being redundant, and so terse and concise without ever being obscure. The excellence of the photographic illustrations, and the admirable skill with which they are made to teach varied lessons, give unusual value to them. Curiously enough, photographic illustrations have generally been rare in photographic works. America is showing the way, however, and in Mr. Anderson's work and Bigelow's Album, to say nothing of the *Philadelphia Photographer*, is showing how valuable to the craft such illustrations may be made.

I conclude by wishing every reader a happy and prosperous New Year.

## THE LIBEL FUND.

During the last month the following additions to the "Libel Fund" have been received: Fred. C. Low, Cambridge, Mass., O. C. Bundy, Helena, Mon., F. B. Clench, Lockport, N. Y., and W. J. MacCormac, Clarksville, Tennessee, each $5; R. J. Chute, Lynn, Mass., $10; Albert Moore, Philadelphia, and A. K. P. Trask, Philadelphia, each $25; J. Paul Martin, Boone, Iowa, $1. Total, $81.

Benjamin French, Treasurer,
159 Washington Street, Boston.

## GERMAN CORRESPONDENCE.

*Trask's Practical Ferrotyper—Anderson's Skylight and Dark-room—Pictures of the Vienna Exhibition Building—Congress of German Photographers—Transit of Venus.*

With a great deal of pleasure I received two new works from America; they really should be translated into German. Works which have been written by practical men, who not only understand the subject they are treating, but possess, also, the art of expressing their ideas in a clear and concise manner. One of these is *Trask's Practical Ferrotyper;* the other is *Anderson's Skylight and Dark room.*

The ferrotype is a specific American style. Some time ago panotypes, or positives on dark glass, were made here, but this is a long time ago; the pictures were short-lived, and soon disappeared, and nowadays many young photographers do not even know the name. When I returned from America I brought with me a number of ferrotypes, one containing fifty heads, taken on the same plate. I took this curiosity to our Photographic Society, and by cutting the plate with a pair of scissors distributed the heads to the members of our Society. At that time many attempts were made to make similar pictures, but the matter was soon dropped. Want of success discouraged many. A new process is not practiced successfully on the first attempt; everything has to be learned, and, particularly in photography, experience in the routine of the manipulation is the main thing; the more is it to be praised, when, from the only city which possesses a Ferrotypers' Association, from Philadelphia, a man like Mr. Trask, whose ability I know from the Cleveland Convention, lays down his experience in this branch of our art. I see that in England, also, the work has found admirers. The book which I received unfortunately stayed but a short time in my possession. I had to give it to a friend, a Dr. Jaizer, who goes to Asia to make anthropological studies, and to take pictures of the different races of men. He finds the ferrotype process particularly convenient for this purpose, permitting him to work with a lesser quantity of chemicals, with plates that are not so apt to break, and requires but a short exposure, and obviating many operations, as cleaning, intensifying, &c. The pictures so obtained are not to be printed, but only serve as models for the draughtsman; a negative is therefore unnecessary. There are undoubtedly many other ways where the ferrotype process might be advantageously practiced in place of the complicated negative process.

Anderson's book is a model work. Goethe says: "Who brings much will bring something to a great many," and Mr. Anderson should have chosen this as a motto for his book. It is a great advantage of the English language, although it is a mixed one (some British, some Latin, some German, all mixed together), that it permits of saying a great deal in a few words. When I translate a page of English into German, which I have to do very frequently, it generally takes one and a half pages to express the same. Anderson employs this already condensed language in a still more condensed form, and is enabled to master an abundance of material, embracing the theory, the practice, and the art of photography. The theory, however, fares the worst, for the practical Anderson has an eye principally for what is practical. But, while giving due praise, I must say that the chapter on the nature of the invisible image (page 135) is treated in a rather too step-motherly a manner. I shall take occasion, at some future time, to correct the assertions made. My unqualified satisfaction I must express with the practical portions of the work, as, for instance, the chapter on "The Skylight," "The Rectification of the Negative Bath," "Details of Manipulation," "List of Failures," "Something About We, Us, Ourselves & Co.," and also the "General Rules on Art as Applied to Photography." To any one who desires to prepare himself for a thorough study of photography, or who wants to take a general survey of all the branches of the art, I should recommend Mr. Anderson's book; and it is well that he, in due appreciation of the fact that photography needs a scientific basis, gives a short abstract of physics and chemistry, which contains the main principles, and gives to the scholar material to think about.

As rich as the book is in splendid form-

ulæ, and gives the rules for all possible processes that are practiced in a model atelier like that of Mr. Kurtz, still I miss a short notice of the carbon process, the Albert and the Woodbury process. Perhaps this will be done in a second edition.

I envy Mr. Anderson his rich illustrations, particularly the twelve photographs, as practical examples of art photography. No work on photography has ever before been gotten up in so splendid a style. Many a one who takes hold of Mr. Anderson's book and reads the "Contents," "Introduction," "Something, Though Not Much," &c , will be surprised that the book contains indeed much, very much.

But I forget myself; I ought to write about photographic novelties in Germany, but in place of it I am writing about photographic novelties in America. With us the principal theme is the Vienna Exhibition Not much is said about it, but a great deal is done. The building is finished, and the right to photograph in it is given to five gentlemen, whose work has already begun. The prints are not made by the silver process, but by the "Lichtdruck" of Mr Obernetter, in Munich. This is perhaps the greatest work which has ever been undertaken by the "Lichtdruck" process, for the edition of many of the sheets will, it is said, reach a million prints. The question to hold a congress of photographers during the time of the exhibition has been ventilated a good deal. The splendid success of the meetings of the National Photographic Association have given a new impulse to the idea. Already in 1869, in Hamburg, during the time of the exhibition, a meeting of photographers was called and carried into effect, while at the same time a committee was appointed to designate the time when and where the next meeting should take place. Unfortunately, however, the committee did nothing, and the prospects for a Vienna congress are not very flattering. The German photographers are not so fond of travelling as the Americans, nor do they show the same willingness to bear the expenses which are necessarily connected with such an exhibition

In the meantime, however, the preparations for another photographic work have already commenced. I mean the observation of the transit of Venus, in 1874. From Professor Newcomb, in Washington, I received a very interesting paper on this subject. He recommends to employ the method which is practiced at Cambridge for observations under the direction of Professor Wheelock. By this method the sun is photographed in the focus of a forty-feet telescope. The telescope is firmly fixed in a horizontal position, and the solar rays are thrown into the telescope by means of a heliostat. In this way an image of the sun of about four and a half inches diameter is obtained without secondary enlargement, and affords great facilities for correct measurement.

This is certainly a very simple arrangement for obtaining a large photographic picture. In the present instance a different method will be pursued, however. The correctness of the measurement is influenced a great deal by the contraction which the collodion film suffers after being washed, and this contraction is variable, being sometimes different in one direction than in another, being greater lengthwise than crosswise. Counsellor Paschen has experimented on this subject and found that collodion films on a substratum of albumen contract sometimes $\frac{1}{600}$ of their length, and the contraction crosswise is of different proportions. This, of course, will make exact measurement impossible. In order to obviate this objectionable feature, the preference is given here to a shorter telescope and to place in the focus of the objective a glass plate covered with crossbars of very fine lines, the distances of which are known. The picture of the sun and the system of lines are photographed and enlarged together, and this network furnishes the rule by which to measure the surface of the sun, and exact measurement may be made even if the film should contract a little. It will be easy to establish correctly the centre of the sun's disk, as well as the centre of Venus.

Still another method has been proposed, to avoid this error caused by contraction of the film, namely, to dispense with collodion altogether, and to employ daguerreotype plates instead. In this case no network of

lines would be necessary, as the daguerreotype plate does not alter its proportions. Then will the old daguerreotype process be once more restored to an honorable position. At all events, many more experiments will be necessary in order to reach that degree of exactness which is demanded of the photographs of this interesting phenomenon.

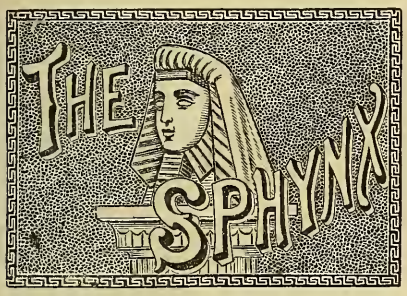
In conclusion, allow me to wish to all the readers of the *Philadelphia Photographer*, and particularly to its zealous editor, a very Happy New Year.

DR. H. VOGEL.

## THE PHOTOGRAPHIC WORLD.

WE shall preserve the memory of our younger companion magazine, now deceased, by dedicating this department of our Magazine to its memory, giving in it short items of news, notes, novelties, sayings, &c., from all parts of the photographic world. We invite all to send us such items continually.

Mr. F. Gutekunst, of this city, and Mr. Alexander Gardner, of Washington, D. C., have made admirable pictures of Prof. John Tyndall, the eminent Alpine climber and lecturer on light.—Mr. George O. Brown, of Baltimore, Md., has retired from the editorship of Mr. Walzl's *Photographer's Friend*, and joined the staff of the *Philadelphia Photographer*.—Query: Wat is the sine of the times wen you see a "artest" (heven spair the term!) ophering to make cheep wurk to "kill out" hiz naber? Answhere: An aukshuneer's sine, sum time.—Mr. B. W. Kilburn has sent us an *excellent* stereoscopic snow view, made on a plate which he exposed three seconds, and developed with a developer made of water, 16 ounces; iron, 1 ounce; acetic acid, No. 8, ¼ ounce. It seems almost incredible.—Dr. J. Fletch Woodward says the beauties of the stereoscope led him to take up photography as an amateur, and from that to embark in the art for a livelihood.—Wen you see a artist (?) ass-herting konfidentlee thet he knose it all, end hez no nead of books to rede on the subjek, then tell me, which ass is hert the most?—A correspondent says: "Men who shrink from educated competition, and depend mainly upon their self-laudation for success, are too apt to sacrifice principle for the few dollars that come in their way." How true that is!—At the late fair of the American Institute, New York, Mr. William Kurtz received, at the hands of the Fine Art Judiciary, for his plain photographs, "The Institute Medal of Special Award;" for his crayon photographs, for his india inks, for his porcelain paintings, for his crayon drawings, and for his oil paintings, the highest praise, and mentioned as deserving of the special award. We congratulate him.—The *British Journal*, in speaking of *Trask's Practical Ferrotyper*, says it "gives plain and practical directions by which to secure the best results, and we do not conceive it possible for any intelligent person to fail in achieving perfect success if he adheres to Mr. Trask's directions."—An amateur photographic association has been formed in New South Wales, Australia.—Some photographers in London seem to feel that every one exhibiting anything for sale at their annual exhibition does them a personal injury. How absurd this is! Photographers from a distance who go to an exhibition want to see a display of everything pertaining to their work. Suppose such exhibitors do "make money out of the exhibition." They are entitled to it if they do as they do here—give freely of their means, without ostentatious show, for the support of the exhibition.—The Berlin Society has arranged for regular correspondence with Dr. Hildebrandt, now travelling in Africa, and M. Kleinwachter, the Prussian Consul at Hong Kong, China.—The *College de France*, in Paris, is to have a photographic laboratory.—Dr. Vogel is the first professor of photography appointed by any government.—The International Exhibition in Vienna opens in May.—Three French photographers have been made Chevaliers of the Legion of Honor for their useful services during the late war.—We expect Mr. Simpson's *Year-Book of Photography for* 1873 about the middle of January.—Mr J. Carbutt, Superintendent American Photo-relief Printing Company, 1002 Arch Street, Philadelphia, has produced some admirable lantern slides from some of Mr. Rutherfurd's negatives of the moon.




We should be glad if Sphynx could have a happier New Year than last year was. Please keep it supplied.

*Answers.*

Louisville, Nov. 22d, 1872.

I see in Sphynx a question asked how to clear up a black bath, and if there is no answer ahead of this that is better, I will try to answer it. The way I clear them up is very simple, and in fact a very good as well as the best way I know of, which is to make a solution of permanganate of potash, fifteen grains to an ounce of water (distilled), and as soon as the paper has been excited I filter the bath, and add fifteen or twenty drops of the permanganate solution and shake well, then set in the sun. By next day it is clear (that is fifteen or twenty drops to half a gallon of silver solution or bath). A bath will work longer and better that way than any other that I have ever tried. I have the care of all the printing solutions of the gallery, and have to keep them in order, and the above is the best and most simple.

Yours truly,

A. L. W.

L. S. Washburne's Gallery.

*Queries.*

If Sphynx is not dead, I should like to ask if it will do to use alum and glycerin both in the same bath in silvering Trapp & Munch paper, and in what proportion to the ounce or ounces? Will an old negative bath make a good silvering solution?

I do not understand recipe in second column on page 386, on top of page.

Does Mr. Marston use Trapp & Munch paper, and what strength of fixing solution?

Mr. Taylor does not give strength of fixing solution, nor whose paper.

Am in trouble about retouching negatives. Where can I quickest and best learn how?

H. H. F.

If Mr. Anderson's book or Sphynx can explain my trouble it will be worth fifty dollars to me. I make up a new bath, and the first plate I dip is covered with scum, and by the time a half dozen have been dipped the scum is fearful, growing worse as the bath gets older, and I have to evaporate and make up a new bath. What is the trouble? Tell me.

E. W. R.

From the description that our friend gives of his "trouble" I should judge the collodion to be in fault. It is impossible to answer with any degree of certainty without knowing all the conditions. If the scum only comes on when he dips his plates, the bath cannot be held responsible. First, try the best commercial collodion, and you will know *then* that the collodion is not the cause. If the "trouble" then occurs it will be necessary to see whether you use a rubber or a glass bath. Nothing can be worse than one of those rubber baths. Again we ask, does he use potassium in his collodion?

Sphynx.

I have been troubled to get brilliant prints lately during cold weather. I came out of my stick beautifully on Saturday, and improved on it to-day. I had been using a thirty-grain bath, floating one minute. I strengthened to forty and silvered one minute and found but little difference; silvered three minutes and a marked improvement. To-day made it 50° (Pile's), silvered one and a half minutes and the result is good. I won't get into that stick again. I had the same trouble last winter on O'Neil's bath.

J.

## OUR PICTURE.

We have been repeatedly asked to give our readers the portraits of some of the distinguished workers in and for photography, and thus add great interest to our pictures. There are many things against such a course. We could not make a selection of those whom we consider most worthy of such distinction, without being accused of partiality, and without exciting some feeling perhaps on the part of those who were left out. We have concluded, however, to indulge our readers two or three times in the present volume of the *Photographer* in the direction named, and have pleasure in beginning the work with the portrait of a gentleman whom many of you personally know and value as a friend, with whose writings and faithful devotion to our art you are very familiar, a gentleman who is universally esteemed by you, a gentleman whose picture you will all be glad to see, and towards whom no one indulges anything but the kindliest feeling. It is the portrait of our old warm-hearted friend, contributor, and co-worker, Prof. Hermann Vogel, Ph.D , of Berlin, Prussia.

In embellishing the first number of our new volume with his picture, we are quite sure that we shall excite no ire or no jealous feeling, and therefore we do it gladly.

To add interest to it we will add a sketch of the life of Dr. Vogel, in order to show how one may rise from the humblest sort of a home to great eminence in our art and in the world if he be studious, industrious, and deserving, and desirous himself of doing well.

Dr. Hermann Vogel was born on the twenty-sixth of March, 1834, in the small village of Dobrilitsh, sixteen miles to the south of Berlin. His father, who still lives, carried on a retail grocery store, and up to his eleventh year young Vogel attended the public school of his native village, and as he stated himself, he was neither distinguished by diligence or good behavior. After having completed his eleventh year he was sent to the Freemasons' Institution at Dresden, where he received his first instruction in the natural sciences.

In his thirteenth year he constructed an electrical machine, and made also from pasteboard a camera obscura. The little class-book did not satisfy him any longer, and in order to procure a larger one, he saved for six months his spending-money of about three cents a week. In his leisure hours he generally visited those places where he could see steam engines or locomotives.

It was his desire to become an engine builder, but at that time it was usual in Germany that the son should follow the occupation of the father, and against his will he was forced into a commercial career. As such he had to serve a four years' apprenticeship, and making paper bags, grinding coffee, carrying bundles, cleaning lamps, &c., constituted, at that time, the main occupation of a commercial apprentice. At last, when he had reached his twentieth year, his father consented to his attending college. He visited first the polytechnical school at Frankfort-on-the-Oder. After eighteen months of study he passed successfully the examination which entitled him to attend gratis the polytechnicum, at Berlin, for three years. Already his predilection for chemistry had developed itself, and he made this science his special study. Besides he employed the many opportunities which the large city offered to complete his education. Having worked for a short time as chemist in a Würtemberg sugar factory, he received a call to Berlin to become an assistant of Professors Dore and Rammelsberg at the Berlin Polytechnical Academy; in 1860 he passed his examination as teacher of the natural sciences. In the same year he published in Poggendorf's *Annals* his first essay on natural history, entitled, "The Relations between Elasticity, Specific and Atomic Weights, and the Coefficient of Expansion." At the same time he received the position of a custodian of the mineralogical museum at Berlin. Experiments in silvering glass led him to a closer study of the physical nature of the precipitates of silver. In 1861 he published the results of his investigation for the Academy under the title, "The Conditions in which Silver is Precipitated when Reduced by the Wet Process." This work brought him in contact with photography.

An artist who possessed a photographic

atelier requested him to devise ways and means how to utilize the silver residues. Then it was that he entered for the first time a dark-room, and became acquainted with a number of hitherto unknown processes. Development, intensification, toning; all this fascinated him so much that he read all the photographic books he could get hold of. Unfortunately, however, they contained nothing but formulæ, but no scientific explanation of the wonderful phenomena; he now tried to explain himself the mystery, and for this purpose experiments were commenced at once. At this time he became acquainted with Mr. Lœscher, now a member of the celebrated firm of Lœscher & Petsch. Lœscher at that time was operator for Mr. Gunther, and he instructed Dr. Vogel in the most important manipulations in photography. Dr. Vogel now tried himself practically in the museum; a great many drawings had to be made after microscopic objects, and a great deal of money had to be spent in this way. He proposed to photograph these objects, and the experiment succeeded. His first photograph was, in fact, a micro-photograph made in 1862. In this way a number of microscopic enlargements of sections of meteors were made, which were afterwards published by Gustav Rose, in 1863, in his work on *Meteorites*. The London exhibition interrupted, for a short time, the studies of Dr. Vogel; the view of this collection filled him with astonishment and admiration. Shortly before this time he published his first purely photographic essay in Ballmann's *Photographic Monthly* for September, 1862. The name of this treatise was, "On Finely Divided Silver and the Developing Process." Simultaneously he published in the report of the Berlin Academy of Sciences some new observations on crystallized oxide of silver and carbonate of silver. "One sees," he stated at the time, "that I had a great deal to do with silver, but very little of this noble metal was in my pockets." His trip to London lasted four weeks. It was here where he learned his first few words of the English language. All his time, during his stay in London, was devoted to the photographic division of the exhibition, and the results of his observations were published under the title, "Photography at the London Exhibition of 1863." It was his first book and had two editions. The success achieved spurred him to work with increased zeal for the development of photography; at that time he discovered the cause why the collodion film is frequently dissolved by the varnish, and also the means to prevent it. These observations were published in Liesegang's *Archiv*. He made further experiments with chloride, bromide, and iodide of silver, and fixed their photo-chemical behavior, for which work the Göttingen University awarded to him the title of "Doctor," in 1863. In November, 1863, a photographic society was formally organized. In 1864 it was deemed necessary to start a journal in the interest of photography, and the independent editorship was intrusted to Dr. Vogel. The publication was called *Die Photographisches Mittheilungen;* the one hundredth number appeared in 1872. From this time hence all his energies were devoted to photography; he was no longer able to attend to his duties as custodian of the mineralogical museum, and resigned this position, although with a heavy heart. But the Society saved him any pecuniary loss by making the *Mittheilungen* his personal property. Soon afterwards a new and grand project excited all his attention; it was the International Exhibition of Photography in Berlin, 1865; it was the first exhibition of the kind in Berlin, and spread an interest for photography through all the circles of society. "It became a school for all photographers, and also for me," writes Dr. Vogel. It was the reason why photography was introduced as a study into the Royal Polytechnical Academy at Berlin.

Already in 1863 he delivered lectures before this institution on photographic chemistry and photographic optics. In 1865 the experimental atelier was founded, and Dr. Vogel nominated as its chief. He was now able to carry on experiments to the fullest extent. In 1867 he went, as a member of the jury, to the Paris Exposition, a post which gave him but little pleasure; not all the exhibitors could receive medals, and many became dissatisfied and soon enough he should feel their discontent. In 1868 he was ordered to accompany the expedition to

Aden to assist in the observation of the total eclipse of the sun. The expedition proved successful, and commenced its preparations for the return voyage. In Egypt, however, another work was to be executed by the expedition—the ruins were to be photographed. Dr. Vogel went to Upper Egypt, and after an absence of fourteen weeks he returned to his home. The extraordinary exertions in a hot climate had proved injurious to his health.

He recovered but slowly from his suffering; a long-continued inability to sleep remained, which only would yield to the newly-discovered chloral hydrate.

His scientific labors, however, continued uninterruptedly; we omit to state them in detail, but refer to the pages of the *Philadelphia Photographer*, of which, in 1865, he became a contributor, and has since continued such.

His main desire was, however, to finish his *Handbook*. Already he had worked on it for three years, wishing to make it an instructor in science and art, instead of a mere cookery-book containing formulæ.

Scarcely had the last sheet of manuscript left his hands, when he received a cable dispatch from his friend Kurtz, in New York, viz.: "You are respectfully invited, by the American Photographers, to attend the Cleveland Exhibition," &c.

"This dispatch," writes Dr. Vogel, "was an event; it created universal astonishment; it was considered a mystification, and I almost doubted its real meaning myself, when a letter from Mr. E. Anthony and E. L. Wilson dispelled all doubts by stating that I was invited to be the guest of the American Photographers, and to take up my residence at their homes. The desired leave of absence was granted, and on May the 6th I steamed for America. Shall I describe my three months' stay in America? The readers of these pages know it already. Wherever I went I was received as an old friend—a brother. The glorious days of the Cleveland Convention, the happy days which I spent in New York, Philadelphia, Cincinnati, Chicago, St. Louis, Niagara Falls, Toronto, Montreal, Quebec, Littleton, Boston, Albany, Troy, &c., &c. Never shall I forget them. These were the happiest days of my life; hundreds of brave men, photographers, manufacturers, and men of science became my friends. I collected a fund of new impressions, and particularly an admiration of American photography.

"With pain I bade farewell to America; my hope to make it my permanent home has not been realized, and I remain on the soil on which I have lived and worked for photography for more than ten years."

He returned to Europe when the Franco-German war was raging. He himself intended to join in the struggle, but the English expedition to observe another solar eclipse called him to Sicily. He started, in mid-winter at Catania; the party suffered shipwreck, but saved everything. In company of Roscoe, Brown, and Darwin he ascended Mount Ætna, for the purpose of observation, but luck turned against the expedition; the unfavorable weather made all their efforts fruitless. Since then he has not left his home. His aim is now as ever the promotion of photography. "Photography," he writes, "offers such a wonderfully interesting field to the investigator. A hundred years ago, only a single object sensitive to light was known, namely, chloride of silver; now we know more than a hundred; invisible rays of light, formerly unknown, have been discovered; a new science, photo-chemistry, owes to photography its origin. Still more important is our art in its application; it has become serviceable to every science, and even to trade and commerce. Everything which requires pictorial illustration, be it for pleasure, for instruction, or as an advertisement, avails itself of photography; it is a new way of writing which fixes the appearance and multiplies it, the same as the art of printing fixes thoughts. The importance of photography will and must increase irresistibly, and to work for its progress I consider the best purpose of my life."

Thus we have the story of a short but eventful life—one that started in rather deep shadows, with but little detail, but which gradually arose to the charm of glowing middle-tints, going through all the gradations, where we must now leave our

esteemed friend, wishing him a bright career in the future of photography. He is even now one of its highest lights, but he will live to see greater things in our art than any of us have any conception of, for photography is yet only an infant.

The negatives which were used for our purpose were made by Messrs. Lœscher & Petsch, the eminent photographers in Berlin, and were recently taken. We see but little change in the face and form of our friend since he was our guest in 1870. Long may he live to lead us and work with us for the advancement of photography.

Our prints were made by Messrs. Dinmore & Wilson, No. 7 N. Charles Street, Baltimore, Md., on Mr. J. R. Clemons's *new* albumen paper. The mounts were made by Messrs. A. M. Collins, Son & Co., Philadelphia, and are a specimen of a new style of oval cabinets or "Imperial" mounts, and are known as design No. 26 in their catalogue. A further description will be found in our specialties column. The signature is a *fac simile* of that of our "old friend," and is very perfect, and just as he always signs his letters to us.

The query may arise in the minds of those who know the difficulty of cutting out prints oval in shape, how did any one ever cut out the thousands of prints oval, necessary for the *Philadelphia Photographer*, and to such we answer that it was done in short order with one of Prof. Robinson's splendid little "trimmers," which works like a charm. The finish which it gives to the edge of the print will be noticed. We have not seen anything so handy and so useful as it is for a long time. Two ovals can be cut out while one square one is done with the knife. A few remarks on the stretching of these prints we reserve for another time.

# Editor's Table.

The *World* came to an end successfully as announced; $3 a volume for its remains.

To Correspondents.—Do not, *please*, write your contributions *in verse*. It is something to do, but it takes up a great deal of space to give vent to a few practical ideas. Let us have your thoughts, but make them *short and to the point*, for our space is always c-r-o-w-d-e-d.

To the Secretaries of Societies.—Please send us a copy of your minutes at the earliest possible date after your meeting. It will oblige us very much, and is just as easy. Give us the *practical* part and not the routine work.

To Everybody.—A man about five feet six inches high, say fifty-five years old, rather corpulent and gray, is going the rounds of the trade begging, on the plea that he is a brother of Messrs. J. W. Black, G. S. Bryant, and other respectable men of Boston. He is said to be a fraud. Govern yourselves accordingly. We have had a "call" from him.

Photographic Mosaics, 1873, has met a most flattering reception, and is giving universal satisfaction to all who read it. By consulting the advertisement you will see that it contains much of real value and interest to you, no matter what department of the art you work in. Its price is fifty cents, post-paid, and all dealers supply it.

Lantern Slides of the Boston Ruins.—Mr. J. W. Black, Boston, has sent us some admirable lantern slides of the Boston ruins, copies of which he offers for sale, together with many hundreds of other subjects of foreign and home scenery, comic pictures, &c. Please read his advertisement.

Mr. J. Pitcher Spooner, Stockton, California, made us a pleasant call (much too short) the other day. He is a live young photographer, and a good one too. He left us a handsome picture of a monster California haystack, group of workmen, &c., which is a pretty picture and an excellent photograph.

Lantern Slides of Foreign Scenery.—Together with a lot for some personal friends we have imported a very fine series of Messrs. Leon & Levy's French lantern slides, embracing views in Egypt, China, Japan, Syria, Pyrenees, Spain, Alps, France, England, Switzerland, Turkey, Italy, Russia, Prussia, &c., &c. We will sell them at most favorable rates. Prices on application to the publishers of this magazine.

Illinois Industrial University.—The School of Mechanical Engineering of the Illinois Industrial University, at Champaign, Illinois, is in a very flourishing condition. It occupies one-half of a three-story building, 128 by 88 feet, in which an iron- and wood-working shop are in constant operation, the motive power being a sixteen horse-power engine, made by the students. Its success in the practical part of its instruction is fully demonstrated in the workmanship displayed by Robinson's Improved Photograph Trimmer, advertised on another page, which are wholly the product of students engaged in the mechanical laboratory of the above-named school.'

Mr. B. H. Howe, the enterprising stock-dealer of Columbus, Ohio, says, "We have got a *rousing* list of subscribers for the *Photographer* for 1873, and you will say so when you see it." This sort of news we like to get. Mr. Howe evidently understands his business.

Since writing the above, Mr. Howe says: "Send on twenty-five more Anderson's book. The thirty sent recently are all gone. Also put inclosed on the cover of one hundred copies of *Mosaics*, and send them on quick. Also put a page advertisement in the journal for us." How(e) is that? Please see the O. P. C. S.

We must not forget to say that Mr. Preston C. Nason is with Mr. Howe, and he is a real live *pusher*.

The Ferrotype and How to Make It, by Edward M. Estabrooke, New York. Gatchell & Hyatt, publishers, Cincinnati, Ohio, and Louisville, Kentucky. Cloth, 200 pages, $1.50. Contains two ferrotypes serving as the advertisements of rival manufacturers of ferrotype plates. This is a very elaborate work, written in a pleasing style by one of the best of ferrotypers and one thoroughly competent to teach. Instead of giving us only such instructions as are necessary to make good ferrotypes as Mr. Trask does, the author goes to much trouble in compiling a very interesting history of the collodion positive from its birth, through its troubled youth up to its present state, in which he has been assisted by the late V. M. Griswold. As a whole it is very creditable both to publishers and author, and will be found very useful not only to ferrotypers, but to *all* who have the good sense to read what is published concerning the art photographic. We have permission from the publishers to make extracts from the work, but the pressure upon us for space prevents our doing so this month. We may have the chance to do so at another time.

Admirable Lantern Exhibition.—We were present at the Franklin Institute on Friday evening, December 13th instant, at the invitation of the Photographic Society of Philadelphia, and witnessed an exhibition of the magic lantern that was certainly one of the best ever given in Philadelphia. The President of the Society made a few remarks before the entertainment, saying "that the members had for some months desired to give an exhibition of lantern slides for the gratification of their friends, and had selected this evening for the first of a series that it was proposed to give during the winter." He called attention to the fact that almost all of the slides were made by members of this Society. It would require too much space to enter into a full description of all the pictures shown during the evening, but a portion may be mentioned as some of the most interesting: Frostwork on a Window-pane, by Wm. L. Shoemaker; Fairmount Park and Wissahickon, by John Moran; Ruins of Boston Fire, by J. W. Black; Instantaneous Marine Views, by John C. Browne, Woodbury slides; "Expressive Pets," by Landy, Cincinnati, Ohio; Niagara Falls, winter, negatives by Messrs. Bierstadt & Barker, slides by Wm. L. Shoemaker, and Woodbury process; Animals from Life, by Schreiber Brothers, and Woodbury process; Union Pacific Railway Negatives, by W. H. Jackson, slides by Wm. L. Shoemaker; Statuary, by John Carbutt, Woodbury slides; Arctic Scenery, &c., &c.

Various miscellaneous slides made by Wallace, Borda, and others appeared to good advantage on the screen. The oxy-hydrogen light was managed by Messrs. Moore, Carbutt, and Shoemaker. The pictures were described by Messrs. Browne and Moore, in a manner satisfactory to the assembled company.

Over two hundred slides were shown, and we noticed particularly the excellent qualities of a large number of them. The Woodbury photo-relief process was well represented. Although the slides made by the silver process were admirable, yet there was a brilliancy and delicacy of tone observed in the Woodbury pictures that distinguished them at once.

WARREN & HEALD. PHOTO'S. BOSTON, MASS.

Benj. Prescott

THE

# Philadelphia Photographer.

Vol. X. FEBRUARY, 1873. No. 110.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## Fifth Annual Exhibition and Meeting of the N. P. A.

The fifth annual meeting and exhibition of the National Photographic Association of the United States will be held in Buffalo, N. Y., beginning Tuesday, May 13th. *All photographers*, at home and abroad, whether members of the Association or not, are cordially invited to be present and to exhibit.

No effort will be spared to make the whole grand affair one of instruction and value to every photographer who may attend upon it. Everything is being done, also, to make the enjoyment of the occasion as great, and to cost as little, as possible.

The Exhibition will be held in the City Rink, which is large and light, and well adapted for the purpose.

The meetings of the Association will be most interesting and useful, and will be conducted on an entirely new plan, arranged to facilitate the routine work and for the greater benefit of those who attend them for instruction. Full particulars soon.

Besides the business meetings, practical papers are expected from leading men in the art; also discussions on the production of work, the progress of photography, apprenticeship, &c., &c. Lectures on art are also expected, with lantern illustrations, by some of the members of the Association.

The Local Secretary will report his further arrangements soon. They will be similar to those of former occasions.

Let every live photographer in the land, who can, be present and have examples of his work displayed. Unusual effort is being put forth by the Executive Committee to induce a larger display of foreign work than ever before. All foreign photographers are invited to exhibit.

Unusually favorable terms will be secured from the railway and steamboat companies, in all parts of the country. Elegant excursions, low fares, and fine accommodations. A special excursion to Niagara Falls is also expected. You can hardly approach Buffalo from any direction without having a most delightful excursion.

By order of the Executive Committee.

W. J. Baker,
Local Secretary, Buffalo, N. Y.

Edward L. Wilson,
Permanent Secretary,
Seventh and Cherry Sts., Philadelphia.

## Libel Law and Unjust Rulings.

ANOTHER EDITOR "GUILTY" OF DOING HIS DUTY.

One of the editors of *The Press*, in this city, who in the interests of the public has been making earnest and honest effort to break up a gang of scoundrels who plunder and murder through secret agencies, has

been sued by one of the gentlemen (?) of the gang for defaming his character (?), and has been found "guilty." As the suit was a criminal one, unless some good fortune intervenes our fellow-editor must go to prison and suffer for the crimes of others. We assure him of our cordial sympathy, and we can sympathize with him as few can, for we, too, have suffered disgrace, incarceration for a short time, and severe loss of time and money for doing what he has done, namely, striving to guard his patrons from imposition and plunder. It is hard thus to suffer, and yet, when one suffers for doing right, there is a sweet satisfaction about it which only the suffering can feel.

Such constructions as have been put upon the law of libel by the court lately are most unrighteous and unjust. The fact of the matter is, the laws were made for the puritans and not for the rogues and rascals of the present day. The *Public Ledger*, of this city, gives us some good thoughts on the subject, which we quote from as follows:

. . . . "The law as it stands may have fitted the times when there was less venality, abuse, and corruption to be investigated than at the present day; but it has become inapplicable to existing circumstances. In addition to this the judicial rulings under the law are changeable and conflicting, being sometimes broad and considerate, and at others narrow, rigid, and severe. And it occasionally happens that the narrow and rigid construction is applied in cases where the broadest and most considerate ruling would have been in the public interest. Of course we understand that newspapers ought to be responsible for wanton, malicious abuses of the 'liberty of the press,' and that they ought to be as diligent and as careful to be right as the nature of any given case will admit. But to presume malice because of an error in a statement of alleged fact, or because of an incidental collocation of words, or to assume malice at all without permitting the whole surroundings of the case to be examined, is against the manifest interests of society, because such law or such ruling shackles the usefulness of the most potent guardian of popular rights and the public welfare—the newspaper press.

. . . . "There are many matters that could not be technically proven in court which ought to be published—which are of a character that would put the public on their guard, and incite to vigilance and inquiry, and which, if published, would restrain lawless men both in and out of office. These are in the nature of clues and warnings to the masses of the people, who cannot otherwise be informed of what it is of importance for them to know, in order to be able to keep a more watchful guard over their own interests and those of their neighbors as portions of the community at large. To assume malice from the mere fact of the publication of matter of this kind; to hold that the publisher shall not be allowed to prove the attending circumstances which influenced his judgment as to the necessity or the propriety of the publication; or when he is put upon his proof as to the truth of what is published to hold him to the technical legal proof of every word or inference growing out of unavoidable expressions or incidental collocations of words; to assume and hold these positions by law or judicial ruling are not only deplorable absurdities but monstrous wrongs, not to the publisher alone, but to the safety of society.

. . . . "Would the gigantic robberies and atrocious outrages committed against the people of New York—exposed, broken up practically, annihilated by the almost reckless boldness of a single newspaper—ever have been exposed if such law as we are discussing here had been applied to that newspaper? Never in the world. But that newspaper, on sufficient grounds for moral conviction, held the scoundrels up to public execration as 'thieves' and 'robbers,' as they were, at a time when there was no technical evidence that would have proved a technical larceny to the value of one dollar."

For the small portion of the public which we represent, we say amen to this. There never was a business so subject to robbery and plunder and imposition as ours was when we took up the pen in its behalf. Moreover the then existing "*press*," all since deceased, took sides very often with the rascals and scoundrels who would rob its readers. We set out with the determination to fight against all wrong practiced

against our patrons. It hardly comes within the province of an editor to do so, personally, other than with his pen, but we put our shoulder to the wheel too. We meant no wrong to any one, but *right for all.* Unfortunately we made an accidental slip, and the court said it was "*malicious.*" We got off with a great loss of time and a loss of $3500, on our own part, and considerable on the part of others, but we believe we did right, and that our readers are all enjoying the fruits of it. Of course we regret the loss, but we know many good friends would make it up if they could, those to whom our loss has been gain; but whether they do or not, we are just as determined as ever to "show up" any outrages that are practiced against you, no matter by whom. At the same time we hope to show the extremest courtesy to the laws of the land, and the most profound respect for the honorable court that decides one way one day and another the next, according to—well, it might be "malicious" to say, what. Let us hope that sensible legislators will soon change the laws.

## NELSON'S PHOTOGRAPHIC GELATINE.

THOSE of our readers who have to do with gelatine, knowing its obstreperous nature, will be glad to know that Messrs. Nelson & Co., London, are preparing the article especially for photographic use. We have received samples of it from the American agents, Messrs. C. J. Fell & Bro., and it is most excellent, being readily soluble, clean, and nice. For mounting paste it has no equal. We commend it to all who know the value of a good article, and to those who need to know. There are two qualities of this gelatine. No. 1 is suitable for autotype or carbon printing, the Woodbury and Eburneum processes, photolithography, gelatine iron developer, mounting and enamelling photographs, and other purposes where a readily soluble gelatine is required. No. 2 is suitable for the heliotype and photo-mechanical processes, transfer paper in carbon printing, salted paper, and other purposes where a less soluble article is required.

## Harmony Between the Collodion and the Negative Bath.

BY ELBERT ANDERSON.

I ASKED myself some time ago, "Why do we make our negative bath forty-five grains of silver to the ounce?" and received the usual answer: "Don't know nothing about it"

It would appear that formerly we iodized our collodion five grains for a bath of forty-five grains, and I was led to suppose the best effects were probably produced by this method of procedure; though *why?*

Later, we find iodizing the collodion as high as seven grains and working down to forty-two grains in the bath produces as good results. Acting on this hint, I iodized my collodion eight grains and worked my bath at forty grains, still with satisfactory results. I determined to persevere, and iodized another sample ten grains and reduced my bath to thirty-five grains. I perceived, or thought I did (which is the same thing to *me*), a diminution of time, and still with good effects. Nothing daunted (that *never* pays, you know), I iodized another batch of collodion to twelve grains and still further reduced the bath to thirty grains, with fully as good results. "Good," said I, "keep it up." I am now using a collodion iodized to thirteen grains, and my bath is down to twenty-five grains. The decrease in *time* is so evident, without loss of chemical effects, that I determined to remit you the result of these experiments. To avoid, however, running any risks in the matter, I communicated this to Mr. Faris, an operator in this city, and received from him the following letter:

NEW YORK, January 6th, 1873.

MR. ANDERSON.

DEAR SIR: At your suggestion I made a collodion according to your direction, thirteen grains iodide and bromide, and reduced my bath to twenty-eight grains (I used forty formerly), and I am happy to state that I am delighted with the result, and can conscientiously affirm that there *is* a decided shortening of time, with effect as good as formerly.

Very respectfully,

FARIS.

Should this meet the eye of any experi-

mental photographer, I trust he may try it, it may lead to important modifications. When we consider that a bath of three gallons at forty-five grains requires thirty-four ounces of silver, and the same bath at twenty-five requires but twenty ounces of silver, the saving is enormous. Again, it is generally suggested to reduce the bath in summer; now as I am working in the severest winter, great modification may ensue in a warmer temperature.

If this be worthy a notice in your widely circulated journal, it is freely yours.

## PHOTOGRAPHIC MINCEMEAT.

BY I. B. WEBSTER.

NINTHLY, *Silver Solutions.*—In our last we detailed a method for preparing glass for negatives, and to make such prepared glass useful we must know what to do with it. There are two solutions to be prepared before we can go any farther with them, and it matters very little which we take in hand first. I therefore choose the one at the head of this paper for my ninthly. I have had experiences of various kinds which I should be glad to give in full, as I am fully convinced that *all of them would be useful to the studious photographer*, but I refrain from an infliction of that kind, and proceed to detail a *sure method* of getting up a "silver solution" of known merit, for it has "been tried long," and never "comes up missing."

Send to your stockdealer and get four ounces of Powers & Weightman's nitrate of silver, and put the whole of it into forty-eight ounces of rain or river water. When all of the silver has dissolved, set it where it will get good warm sunlight (rather difficult just now in this latitude), for at least one day. Now bring it in and test with blue litmus paper, in order to form some estimate as to the quantity of acid that will be required to make it slightly acid at the proper time (do not add acid at this time). Now prepare iodide of silver by dissolving ten grains of iodide of potassium in half an ounce of water in a small bottle, and in another small bottle dissolve ten grains of nitrate of silver; pour these solutions together, and a beautiful canary-colored precipitate is the result. This will soon settle to the bottom. Now pour off the liquid and fill up with water, shake well, and let it settle, then again pour off and fill up as before. Do this until the liquid is as clear as the water when added. This indicates that all of the potash (from iodide of potassium), has been removed, leaving you in possession of pure iodide of silver. Now pour off as near every drop of water that remains in the bottle as you can, and add all of the precipitate to your forty-eight ounces of silver solution. Do not fear getting in too much, as the solution will only take so much and no more. Now filter, and there will remain in the filter all of the iodide not taken up by the silver, and all of the organic matter thrown down by the sun. Pour this solution in the bath dish and try a plate. You can judge by the appearance of the developed plate as to its condition, and in case acid is needed, the test made with the blue litmus paper as directed will aid your judgment as to quantity. Go slow in adding acid, for remember that the full effect of the acid is not shown until some time after its addition. It is better when time will allow to add the acid at night and leave it until morning, when a trial will be a fair test. It is more difficult to remove acid from the solution when too much has been added than it is to add more if there is an insufficiency. Therefore I repeat "go slow." When you find your new bath is working well do not meddle with it, except in the legitimate work, viz., *coating plates in it.* Now take two ounces of nitrate of silver and dissolve it in twenty ounces of rain or river water, set it in the sun as long as you can spare it (say from one day to two weeks), and without adding anything to it. Set it convenient to your bath dish, and as the solution gets low in said dish, fill up from the last-named solution. It will be seen that this is a little stronger than the original solution. Then it follows that the addition of a little of it, at comparatively long intervals (or as often as is needed), adds not only to the quantity, but also to the strength, tending to keep it uniform, or nearly so. There being nothing but silver and water, its addition even in small quan-

tities tends to counterbalance all excesses, such as ether, alcohol, and iodide of silver, rendering the boiling process very rarely necessary. The larger the bath, the less trouble to keep it in order. My bath dish holds one pound of silver (or 1920 liquid ounces, forty grains strong); and I have a "boiling-bee" on the average of about once in two years. When I find it necessary to boil my bath solution I go at it, and proceed as recommended by Anderson in his book, entitled *The Skylight and the Darkroom* (a book that every photographer should have). I am not acquainted with the author personally, but upon reading his book I find in many cases that we work exactly alike, especially in renovating old bath solutions —with this difference: he does it by rule, and I do it only when absolutely necessary.

And now for fear this paper will be too long I forbear further items, and close by saying "try me," and look for future "Mincemeat."

## THE UNTRUTHFULNESS OF PHOTOGRAPHY.

BY H. H. SNELLING.

THAT photography does not always speak the truth in its representations of nature and art is a fact of great concern and regret, to the major part of its admirers, while, to judge from their writings, it is a source of infinite satisfaction to others. The latter class we shall not blame, for it gives them employment.

Now, I am not one of those who disbelieve in photographic untruthfulness, but I am skeptical as to the assertion, that it can be corrected by the pencil of the artist only. I doubt very much if one-half, or one-quarter of the means that may have been employed photographically, or that the resources within the reach of photography have been discovered for correcting this evil, as well where the causes arise from defective lenses, chemical difficulties, imperfect lighting, or colorific obstacles, as from the ignorance of men engaged in the business.

These difficulties in the way of truth are numerous enough, but they are rendered more so by the incompetency of photographers themselves. I do not now wish to enlarge upon this fault of photography—a future day may give me the opportunity of entering more thoroughly into the matter—but I wish to express a few thoughts on some of the points involved.

No man or woman can paint a natural scene, or portrait, or ideal picture of any degree of merit, unless he or she is *born* with the natural abilities required for such work. God is the source of all knowledge or talent, and he gives to every man according to the good pleasure of his own will, and this is no less true of the artist than of the philosopher, divine, or mechanic. This fact is abundantly proved by observing the bent of children's minds. No sooner are they able to crawl than they begin to show the peculiar talent *imparted* to them. Hence the necessity for parents watching closely the minds of their children, and the folly of insisting upon their adopting any line of trade or profession at variance with their inborn predilection if you do not want them to fail miserably. "You cannot make a silk purse out of a sow's ear," neither can you make an artist out of a natural blacksmith, nor a chemist out of an inborn artist. They may acquire a certain amount of knowledge in the arts and sciences, but if they have not the natural ability to apply them they are practically of little or no use to them.

You may ask, what has all this to do with the truthfulness of photography? I reply, much, in every way. Now, I have not yet seen a fully fledged, natural born photographer, although there may be such, but I know several who approach very near to it. There are, however, those who are chemists, opticians, and artists by nature; men who are skilful in handiwork, and those whose tastes for the beautiful and true are exquisite; and others, again, whose correctness of eye in matters of art and nature is perfect; and it takes all these combined in one man to make a perfect photographer. Can you find such a photographer? And yet there are men in the business who affect to exercise, in their individual persons, each and every one of these talents. How far they succeed in accomplishing the destiny of photography we witness every day.

To arrive at truthfulness in photography —supposing the errors of the camera are corrected—the photographer must know, not only how to compound his chemicals, but he must be thoroughly acquainted with their character, qualities, and operations, simple and combined; he must know how to analyze as well as compound; and as the variety is so great nothing short of mastering the whole volume of photographic chemistry will enable him to become an adept in his business. He must have an eye to strict cleanliness, and handle his tools with skill. He must be fully instructed in the nature, action, and force of light, not only in giving form, beauty, and truth to the image of natural and artificial objects, but as to its action on chemicals and colors. He must have sufficient knowledge of optics to be enabled to correct such errors of the camera, and of the light within his province. He must have sufficient taste to pose his "sitter" so as to bring out all the best points of character, both mental and physical, and to arrange the drapery, background, and accessories so as to make the most beautiful picture possible; each part in perfect harmony with the rest, and all subservient to the principal figure. He must have a correct eye for truth—I do not mean that ideal truth that so many art critics talk about, but positive truth, natural truth, the truth as God has given it to us, otherwise he cannot focus his camera aright. If he cannot detect the slightest variation of a straight line from the perpendicular, or the slightest convergence or divergence of parallel lines, whether perpendicular or horizontal, and does not know what "*sharpness*" means (I have known photographers who did not), he cannot produce a perfect delineation of his model upon the ground-glass.

Now, if we were to insist upon every photographer possessing all these qualifications how few photographers there would be in the world, and yet, it is the want of these *inborn* talents that is the cause of much of the untruthfulness found in photographs. What then should be done to correct the evil? Simply (where the "one man power" does not exist) let each department in every establishment—chemical, manipulatory, posing, illuminating, and focussing—have a separate person fully competent to meet its requirements. Let photographers learn wisdom from some manufacturers, who give different parts of a machine to workmen best qualified to construct and finish that particular part.

## THE TESTIMONY OF A VETERAN.

We quote the following from a private letter to us from Mr. I. B. Webster, Louisville, Kentucky, whose "Mincemeat" we all enjoy so much. We do it to show that even men as well posted as he, are *greedy* for anything they can get to read on the subject of their art. Mr. Webster says:

"I am in receipt of Anderson's book and *Mosaics* for 1873. I am highly delighted with both of them. How any photographer that does any kind of business can get along without the *Mosaics* I cannot understand. I have a splendid collection of photographic literature to which I am adding every year, but I consider that, after all, it would be incomplete without the *Mosaics*. I read photography all day yesterday (not being well enough to attend to my usual duties), and came here (to my gallery) full of ideas. In fact I know that I am a better photographer after reading Anderson's book, the *Philadelphia Photographer*, and *Mosaics*, than I was before. I find many, many, yea very many little, yea 'very little' points that are invaluable to me. And when you consider that I have practiced photography since 1853, and I acknowledge that I get instruction from these publications, how much more so ought the comparatively young operator to be benefited thereby."

## HURST'S STEREOSCOPIC STUDIES OF NATURAL HISTORY.

We have just had a most enjoyable treat in the examination of a set of Hurst & Son's (Albany, N. Y.) Stereoscopic Studies of Natural History. They are pictures of stuffed animals and birds, mounted with great skill in most natural attitudes, and colored true to nature. The more we look

upon them the more we wonder and admire. Mr. Hurst is the State taxidermist of New York, and certainly no one can excel him in his particular line, while Haines the photographer assists in making the pictures in most artistic style. These pictures make one imagine, not that he is in a menagerie, but that he is out in the forests amid the native haunts of the wild animals represented; for in each case the shrubs, &c., used by the beasts for food or shelter are also shown in the picture. No dealer in stereoscopic pictures can fail to make a sensation with them, for everybody loves animal pictures, and heretofore good ones have been very scarce. Thirty-six subjects are now ready. The quality of these cannot be surpassed We need not quote from the large list of testimonials Mr. Hurst sends us from home and abroad to assure our readers that there is nothing for the stereoscope made more attractive than Mr. Hurst's pictures.

Scovill Manufacturing Company, New York, are the trade agents.

## PHOTOGRAPHY AND HEALTH.

Photographic operators of ability are a scarce commodity much in demand, and for this reason we want to say a few words on the subject of health, or rather taking care of the health. We are constantly receiving letters from correspondents who complain of "bad headaches," "general debility," "bronchitis," and so on, the result of being shut up from day to day in a badly ventilated dark-room, and of eating their meals, especially dinner, at most irregular times. Again, we are often requested to assist in the sale of "a first-class photographic business—sold on account of ill-health—almost *given* away to a cash-buyer," because the poor broken-down photographer has to give up for the reason that his greed for gold has driven from his mind all consideration for his health. This is wrong, and should be stopped. Besides, there is no necessity for it. Every dark-room can be ventilated in some way. If in no other, without admitting actinic light, then adopt the plan in common use for ventilating the holds of vessels, *i. e.*, a canvas tube, reaching from the dark-room floor to the air, so bent as to prevent the admission of the light. Now in the matter of eating, no matter whose operator you are or how busy you are, eat your dinner at a regular hour. You are killing yourself if you do not. No patron will be so unreasonable as to wish you to do otherwise. Just *do* it. Insist upon it. It is your right, it is your life.

## THE NEXT CONVENTION OF THE

We wish to increase the number of exhibitors. Heretofore the show has been made by comparatively a small number of those who have attended the conventions. What are called the principal galleries have been, usually, generously represented, but the men of smaller means have modestly kept back. This is not altogether right. The object of our gathering is not to furnish means of advertising to those who already have, or would obtain, a wide celebrity, but mutual improvement. It is well of course to have many samples of the best work: these will furnish ideals to many; but each man of you bring some of your best work—a few, say half a dozen cabinet cards, fifteen or twenty cards, one or two of your nicest 4-4 or 8 x 10. You need not be deterred by the expense; that may be slight. A neat frame, glass, and back, large enough to hold your specimens, are all that is required. Cover the back with some tinted paper; arrange your pictures in order thereon; stick each to its place with a drop of mucilage; when dry place in the frame. One frame will thus accommodate four times as many pictures as with an expensive show mat, and can be made to look just as well if not better.

Bring your frame with you. It shall be hung up, and then you can see just how your work looks alongside of the rest, and study out the difference and how produced

—whether by lighting, exposure, chemicals, or instruments. This is how to improve.

Remember that we advance as a body just in proportion as we improve individually. This is the law of all social progression. Begin with the units. You and I are each one. Your watch only works well when every part — tooth, pivot, spring, screw, &c. — is each separately perfect; before that, they cannot go to make a perfect whole. If we would be a society powerful for good, see to it that each member does all he can to advance himself and help his neighbor.

Bring along your pictures.

Each man shall have the best place.

Full particulars how and when to send given in due time.

V. J. Baker,
Local Secretary.

## ART STUDIES FOR ALL.

### I.

In volume V, 1868, we published a series of papers entitled "Art Principles Applicable to Photography;" in volume I, 1871, of the *Photographic World* we published another series called "Position and Composition," and in volume II, of the same magazine, still another series, entitled "Landscape Lessons," in all of which we endeavored, by giving expression to what little knowledge we had upon the subject, and by copious and elegant illustrations, to bring to the minds of our readers the principles and rules of art, so far as they could be made useful in the practice of photography. We believe the said papers, humble as they are, have done a great deal of good, by awakening the minds of a *few*—a *very* few only, we are sorry to say—to the importance of a knowledge of the principles and rules named.

We, therefore, take up the work again, and hope to awaken still further interest in the matter. We shall perhaps advance no new thoughts, but will present what we have to say in a little different shape from what we have previously done. We would be glad if a real interest was taken in the matter, and to have *very many* benefited by what follows. If you have the volumes alluded to, review them, and thus enable yourself to better travel along with us in the journey we are about to take.

Before we set out, let us acknowledge our indebtedness for almost everything we know, to Burnet, Dwight, Ruskin, and others, whose works we wish every photographer could read.

Now, we suppose, there are many of you who will ask, "Of what *use* are these principles of art to us in our *business?*" To such we give the same answer that Franklin did when asked "Of what use is electricity?" His answer was, "Of what use is a baby?" Yet another answer *might* be given you, and it is this: A knowledge of art principles will enable you to treat your subject with more ease—to get him into better position—to light him more skilfully —to *know* when you are making his picture that you are doing it *in the very best way possible.* It will enable you to do your work more quickly, to get better results, better prices, better reputation as an artist, and as a consequence a better income, and it will enable you to *enjoy* works of art and nature in a way which you now have no conception of.

Let us, therefore, without further parleying, work right into the subject in hand, and see what we can make of it.

1. If you ask "What *is* art?" we should make answer that anything which admits the expression of an idea, or sentiment, or the telling of a story is an art—at least this is sufficiently true for our purpose.

2. There are certain powers or principles brought into play in the production of all pictures, and although the works of the old masters are more or less ideal, yet the principle of *imitation* is more or less the governing one in them. The poet, the musician, the painter, the sculptor, *all* strive to imitate and express nature in their works, and the truer they are to nature the greater is their skill considered to be.

3. For this reason the student of art is ever admonished to *study nature*, because his works must imitate nature, and to study the works of the old masters, because they imitate nature. By studying is not meant a casual looking over of a great quantity of

pictures or subjects from nature, but a careful, thoughtful examination and analyzation thereof. It is possible for a person to read a book from beginning to end without having the faintest conception of what story is told, or what principles are involved in it. But if the book be read *thoughtfully*, notes made upon its contents, and mental queries put and answered concerning it, it is pretty sure to be remembered. So in examining pictures. Instead of their being heedlessly looked over, if they are carefully examined, and queries put as to why this or that is so, some benefit will be derived from their examination.

4. By imitation we do not mean copying. You *copy* a daguerreotype to make a photograph of it, but if you make a photograph of a person in position, lighting, &c., like the figure in the daguerreotype, you *imitate* it. This spirit of imitation you will notice pervades all humanity. Pleasure not only gives impulse to this power, but it is the definite object of imitation. If anything gratifies us we seek to increase the gratification by multiplying the objects which gratify. There is no limit to the extent to which this is carried on—now in one direction to please the tastes of one class of people—now in another to please another class.

5. A true work of art excites new ideas and new feelings, and enriches our minds with new conceptions of truth and beauty; and therein lies the greatest benefit conferred by art, as well as its greatest attainment. To reach this excellence the study of nature in the way we have indicated is indispensable. Her laws must govern art. The great end and aim of art is to produce ideal beauty, which, again, must have principles for its foundation. To learn these principles, which are form, light and shade, harmony and symmetry, and which are all essential to successful imitation, the artist must flee to his only safe guide—*nature*. Truth to her is the fundamental principle of all imitative art.

6. And when you do this remember the difference we have explained between copying and imitating. It is the artist's privilege to improve and embellish nature. Choose the best out of the good before you, and learn to produce an agreeable result. Give to your work the impress of your own mind, and your own conception of the subject you are handling.

7. The most essential element of art is harmony. Harmony of effect in the whole redeems the faults of parts; and it is this, and this alone, that makes any combination pleasing to the eye.

8. Another most essential element of imitation is freedom—that freedom of mind and hand which belongs to none but those who have mastered the principles of art. The observance of these principles is just as essential as is the observance of the rules of spelling and grammar in writing, or the rules of chemistry in preparing your solutions. We constantly hear allusions made to the works of the old masters. It is because they were most conscientious in the observance of these rules and principles, and in following them we follow the rules themselves.

## The Manufacture of Mounting Boards.

THERE is one branch of manufactures if no other, connected with photography, which has kept pace with the advance of the art itself, namely, the manufacture of mounting boards for photographs.

If we look back four or five years upon the very meagre variety and very repulsive styles of these goods then used, and compare them with the very artistic, elegant, and harmonious designs, styles, and colors now supplied, we will hardly believe such a difference possible. And not only are there improvements in the particulars mentioned, but very great improvement has been made in the *quality* of the boards, thus not only removing from them all substances injurious to the picture, but rendering them better in the matter of surface, hardness, &c.

*All* of these very great advances—yes, we may safely say *all* of them—are due to the enterprise and skill of Messrs. A. M. Collins, Son & Co., Philadelphia, together with their willingness to adopt any suggestions made to them by others of good taste. The result is that the *appearance* of the photographs now made is far more tasteful

and beautiful, and the cultivation of more interest in such matters of refinement. Another change has taken place which we almost forgot. The establishment of these gentlemen has grown to immense proportions, and is without doubt the largest in the world. In support of what we say as to their manufactures, we have contracted for a monthly example of their work for our pictures during 1873, and we shall usually mention the number of the design used. Notice them monthly.

## "There Appears to be a Sameness about Them, Don't There?"

THE following characteristic story, though coming to us from a private source, is almost too good to be lost. On Dec. 9th, Mr. Anderson's birthday, and during a violent snowstorm, a photographic artist from the South, paying a visit to the North, stopped in at Kurtz's. Mr. Kurtz being absent at the time, Mr. Anderson took the gentleman in hand. After scrutinizing all the different arrangements, the light, dark-room, &c., &c., they adjourned to the reception-rooms. Mr. R. (the stranger) surveying the work for some time in silence, the following conversation ensued.

*Mr. R.* (Busy with his examination.) "Mr. Kurtz's pictures appear all alike, don't they?"

*Anderson.* (Eehoing.) "Why, yes, Mr. Kurtz's pictures *do* appear all alike."

*Mr. R.* "When you have seen one you have seen all, haven't you?"

*Anderson.* (In the same tone.) "Why, yes, when you have seen one, you *have* seen all."

*Mr. R.* "Ahem! They seem the same. There appears a certain sameness about them, don't there?"

*Anderson.* (As before.) "You're right, there *does* appear a certain sameness about them."

After some further conversation the gentleman turned to depart, when Mr. Anderson touching him gently on the arm, said he had something to show him, and taking up a handsome morocco case, displayed ten bronze medals, eight from America, and two from Europe; he handed them one by one to Mr. R., and bade him read the backs carefully, when the following conversation ensued.

*Mr. R.* "These are very nice; it must be very gratifying to be able to show all these medals."

*Anderson.* "Yes, Mr. Kurtz's medals are all alike, aint they?"

*Mr. R.* "Why, yes, excepting the dates."

*Anderson.* "When you have read one, you've read all, haven't you?"

*Mr. R.* "That's so."

*Anderson.* (Reading from a medal, Awarded to W. Kurtz, the first-class premium medal for the best photographs.) "They are *all* the same, '*first-class premium medals.*' There appears to be a sameness about them, don't there?"

Mr. R. went away just the same as he came in. There must be a "sameness" about him.

## OUR NEW BOOKS.

### PHOTOGRAPHIC MOSAICS.—MR. ANDERSON'S BOOK.

ASIDE from any pecuniary interest which we have in the successful sale of our publications, we do want them to be read by our readers, for we earnestly desire that they should be as fully informed as it is possible to be in matters which will tend to their advancement. We take risks, and large ones—for example, in the case of Mr. Anderson's book, over $3000 had to be invested before a copy was sold—to supply these books—having faith in your appreciation of our efforts—and are therefore glad when they *sell* satisfactorily, but we are still more glad when we are assured that they are *useful*, and we get such testimonials as the few we have selected from the multitude as follows:

Of *Mosaics*, Mr. R. J. Chute says, "I find it full of very interesting and instructive articles. It is the best of its kind."

Mr. I. B. Webster says, "How any photographer, that does any kind of a business, can get along without *Mosaics* I cannot understand. I have a fine collection of photographic literature, but it would be incomplete without *Mosaics*."

Mr. D. H. Hunter says, "I got a copy of *Mosaics*, and it was so good I ordered all the back numbers. I thank your *Philadelphia Photographer* and *Mosaics* for changing me from a mechanical operator to a *thinking* one."

Of Mr. Anderson's *Skylight and Dark-Room*, Mr. J. M. Davison says, "If a man cannot take a good picture after reading it, he had better go to digging post-holes for a living."

Mr. I. B. Webster, a veteran photographer, says, "I am a better photographer after reading it. I find many, yea, very many *little* things in it that are invaluable."

We also have the following from Mr. G. O. Brown, Baltimore, late Editor of the *Photographer's Friend*. He says:

"I must congratulate you on the *Skylight and Dark-Room*, by our mutual friend, Anderson. After a careful examination I must admit that I really consider it the best publication yet issued for the benefit of the profession. It fills just the place—so long open—that will help towards ennobling our art, by stimulating the operator to zealously *work* to secure more artistic pictures, and at the same time he can read up *chemically*, as every operator should. The chapters on hydrostatics, pneumatics, heat, optics, outlines of chemistry, &c., are written in such style that, together with the numerous excellent cuts, one does not tire nor consider it *dry reading*, like other works. In a word Anderson's goes over the ground where others would have made our heads ache with their *complexedness*, and gives us the same information clothed in such terms that all may comprehend. This is just what we have needed, and Anderson has hit the nail on the head. At no more opportune time could such a book have been issued. The public now being, generally speaking, educated as to what constitutes good photography, begin to discriminate, consequently the photographer who desires to be patronized by the intelligent class, cannot afford to be *unnecessarily* ignorant of his *art-calling*. This book will dispel many fogs and help restore many injured *dispositions*. The photographs used as illustrations answer most admirably this purpose, and form a valuable and attractive feature.

"The typography is indeed a marvel of neatness and perfection. Every photographer should have a copy, and every one who sees it *will* have it. The profession should vote Mr. Anderson their unanimous thanks.

"Yours, &c.,

"G. O. Brown."

We are very glad to have the value of our publications confirmed by such practical men, and with the more confidence commend them to our readers.

## COMMENDABLE ENTERPRISE.

We have no hesitation in holding up a Western photographer as an example, for he is five hundred miles from any railway station and no one can grow envious We allude to Mr. E. H. Train, Helena, Montana, a gentleman who deserves more than ordinary credit for the quality of work he does, because of his few opportunities. The examples of his work which we have received would shame many of greater pretensions in our large cities. The reason of this is, because Mr. Train does not shut himself out from any of the means of improvement, but like a live enterprising man should, he takes pains to post himself in every way possible. He orders our magazine for himself and a friend, several of our publications, and then adds $25 to become a *life* member of the National Photographic Association. At this last we confessed to some surprise, but Mr. Train declares himself satisfied that the Association is doing him a great deal of good, no matter if he is far away from the most of its members, and he believes in supporting it—wants it to continue.

He says when new-comers from other States call upon him for pictures they express surprise at the good quality of his work, and say they "guess it must be because the air is so pure!" Yes, that's it, "because the air is so pure," coupled with the fact that Mr. Train is one of those sensible men who read, and study, and think. Such trains always move onward rapidly, and produce good dividends.

## PHOTOGRAPHERS—WAKE UP!

BY G. A. DOUGLASS.

ONE of the good resolutions for the *new year*, which I trust you have made, and one which I hope will be most faithfully kept, *is*, that you are bound to go to the next Convention of the National Photographic Association, which will be held in the city of Buffalo, New York, commencing Tuesday, May 13th. If you *wake up now* to the necessities of the case, and begin to set your house in order against the day of your departure, you will find it very easy to lay aside the *wherewith*, and to arrange for your absence from your gallery. Should you, however, see fit to *doze along* until the latter part of *April*, *possibly* it may occur to you then that times are hard, money scarce, and if not that, no *substitute* for *chargé d'affaires* during your absence. So away goes your much-needed breathing-spell, and the chance which occurs once in each year of noting the *progress* of your *art*, and *learning* possibly a "wrinkle" or so that may be of use, and withal profitable. You cannot *afford* to stay at home and miss this chance; it is worth *all* it costs just to be encouraged and "spurred on" for the succeeding twelve months. If you begin *now* you can afford to go, every one of you. The investment will pay you *good interest*, I guarantee you that. Now a very good way to accumulate a little fund (or big one if you choose), for the purpose in view, is to *donate* (you must be liberal you know—*all photographers are*), a portion of your receipts each week—say the value of from *two* to *six sittings*, negatives or ferrotypes; figure this to suit yourself, only be sure and figure enough, as the time is short, and if anything is left over from the fund you can use it to become a *life member* of the National Photographic Association. You will not notice the discrepancy on your *cash book* at the end of the year, for after you get back from Buffalo you will be so full of courage, ambition, and *nerve* that you will, by *good work* and *push*, increase your business astonishingly; and here's where your *interest* on the investment comes in. To start this matter right it will be better that you *name* your fund—call it, say, "Fund for Recuperation of Health and Acquisition of Knowledge;" now be careful who you select as *banker*, for this fund must be taken care of; and not put where there is the *least* possible chance of its "walking off." I would not advise you to bank in the same pocket-book that holds the *general fund*, as that fund very often is *overdrawn*, and you know how *easy* it would be to *borrow* from your "Fund for Recuperation of Health," &c., and then to delay paying until too late—so away goes your *hopes* and golden chances for *knowledge*, and you settle down to work another year—*disappointed.*

The *photographic world moves*, and if you want to keep up you must move too—so be getting ready to move on to Buffalo in May next, where Local Secretary Baker is preparing to receive you in good style, and making efforts to surpass *all preceding* Conventions, which I presume he will do.

Progress is the *watchword* of the *craft*, and to keep up requires *busy hands*, *busy brains*, hard work, persistent study, and last, but not *least*, *your* attendance on the conventions and expositions of our art. *Go!*

## Spirit Photography Revived.

EDITOR PHILADELPHIA PHOTOGRAPHER:

I send you with this an article* clipped from one of our city papers of to-day, which I think contains matter of interest to all photographers, inasmuch as it is the account of an exposure recently made of one of the grossest swindles to which our beautiful art has ever been prostituted, viz., spirit photography.

I thought, after Mumler's experience in New York, a few years ago, that this wicked imposition would never be attempted again, but would find its sepulchre among other exploded humbugs; but it has been my good fortune to be instrumental in

* The article alluded to is too long for our pages. It gives the details of a visit by Messrs. Hall and others to the "spirit" gallery, to ascertain the truth of the whole matter; of their offer to Gifford to expose his tricks, and of his complete discomfiture and failure to prove himself other than a mere trickster.

exposing another unworthy disciple of Daguerre, whose "ways that were dark and tricks that were vain" have created considerable interest in this part of the State.

As the manner of producing these so-called spirit pictures is not fully explained in the article referred to above, and as it is an innovation on all published formulas, and to me altogether novel, I will give you a brief description of it.

Mr. B. S. Gifford, the author of these pictures, is a man of average intelligence, and probably knew full well before he undertook this specialty what the opinions of the photographic world were on the subject. But it offered too tempting a bait for his cupidity to withstand; so he struck boldly out, but shied clear of all the well-known dodges of mica negatives, transparencies, &c. (rocks on which Mumler and others had foundered), and determined to have no second-hand spirits on his plate.

With this end in view, he probably experimented with his chemicals, and at last devised a method at once original and successful. He found that a nitrate bath containing a large quantity of alcohol, used in connection with a developer containing none, would produce negatives with such a variety of fantastic clouds and streaks as would shame the worst tangled hieroglyphs of Egypt.

So far this was a step in the right direction, but not a complete success, as these masses of clouds would sometimes spoil or seriously mar the portrait of the innocent victim of his deception. A little experience, however, proved that if a delay of several minutes occurred between the removal from the bath and exposure of the plate, the clouds would all be on the lower end of the plate, leaving the upper portion comparatively clear for the portrait of the sitter.

These few minutes might seem monotonous to the sitter, so Mr. Gifford decided to utilize them by going into the "trance state," as they call it, and beseeching the spirits to grant him audience, which he does in a loud voice, the contortions and jerkings of his body, meantime, being truly pitiable. The cap is then removed and the exposure made as usual. The resulting negative is, as I before stated, only extraordinary from the peculiar combination of clouds, streaks, and stains in the background, or what was the lower end of the plate.

To the ordinary customer these are pointed out as the dim outlines of spirits, which will appear much better defined in the print. This usually suffices, and the negative is then ready for the balance of the process, and is passed to a "retoucher," who, not having read Mr. Snelling's papers on the subject, or in reckless disregard of their teachings, proceeds carefully to remove portions of the deposit in places where shades should appear, and (after varnishing) to pencil such other portions as are desired to print light, when presto! spirit faces are peering from clouds in every nook and corner of the plate.

The above is substantially the whole formula for the manufacture of spirits, as practiced by Mr. Gifford, and in daily practice it works well enough, as patrons are not allowed to inspect their negatives very closely, being told that a proof can be seen next day, which is, of course, printed *after* the negative has received the requisite manipulation.

It is only when a brother photographer calls that this sort of thing becomes embarrassing; but should he insist that nothing is visible to his eye other than clouds, &c., I found it was only necessary for the operator to take out a large magnifying glass, and, after prolonged examination, declare positively that there really were spirit forms visible, which, of course, closed the argument.

All the "spirit pictures" I saw of Mr. G.'s make were done in this way. I saw several negatives from which prints had been made, and every one showed the faces plainly pencilled on the surface. I inclose a couple of fair specimens, which you will readily discover were made in this manner; also a copy of Mr. G.'s advertisement.

It is due to Mr. Gifford to say that he does not pretend to control any spirit at will, but only to obtain a promiscuous assemblage of the dear departed, which you will notice are sometimes slightly mixed.

Of spiritualism I know and care but little; but when fanatics in any creed degrade and falsify a noble science in the propagation of

a pet theory, which is no less a detriment to the welfare of the community than opposite to facts, it is the duty of all, and particularly of the professors of said science, to detect and expose the fraud if possible.

Your noble journals and the National Association of Photographers have done much toward educating the world above the belief in such things; but their mission will not be fully accomplished until "spirit pictures" shall be no longer attempted.

LANSING, MICH. B. F. HALL.

There is no doubt but what Mr. Hall has hit upon the plan adopted exactly, and much credit is due him for his persistence.—ED.

## Hints from the Record of an Artist and Photographer.

BY JOHN L. GIHON.

No. 6.

IN my last communication I intimated the fact that our "background subject" was by no means exhausted.

The existing difficulty is, to say the least about it that its merits demand. If you should be an artist by profession, or even by intuition, half of the trouble will have been encountered and will soon be provided for. In appointing a gallery—in the event of being unable to paint one satisfactorily for yourself—buy a "flat" of a neutral tint. This color is, of course, indefinite. It would be described by some as dove color, by others as stone, and by others as gray. It is almost needless to say that we require no positive color, but only a broken tint that will heighten the lights and relieve the shadows thrown upon our model. In its existing condition this would be all that might be required for portraits showing but the upper portions of the figure The peculiarities of our calling demand provision for the caprices of the most exacting customer.

"Full lengths" must be provided for, and a standing figure, pictured in relief against a monotonous gray "nothing," certainly does not look well. It is a principal endeavor with me to avoid any laudation of selected persons, but I know of a few men in our profession who could soon adapt a screen to the exigencies of almost any occasion. In skilful hands, the means of doing so are simple. The most favored improvements are the indications of a window or open lattice, the lower part of which casts a shadow that will contrast well with a light drapery. This effect, upon an evenly-covered gray muslin, can easily be produced with charcoal, black and white crayons. Should you be able to handle a brush, then I should advise the work to be done with what we technically term "distemper" preparations. For the benefit of the uninitiated I wish to state that dry colors mixed with a light sizing will answer every purpose. The most convenient sizing or vehicle to use for this is made from white glue. Throw an indefinite amount of it in cold water, and allow it to remain until perfectly flexible and soft; then, after pouring off the cold water, add warm water, until you reduce the whole mass into a thin liquid. Some heat will facilitate operations. One great difficulty is, that the sizing is so often used too strong. There should be but little wear and tear upon our screens, and either gross carelessness, or an exceedingly circumscribed space, are all that can ever account for the scratches and digs seen upon the backgrounds of most of our operating rooms. Even the stretching of a large canvas is a matter deserving of some consideration. The process is simple enough—but so was the little trick with the egg that old Mr. Columbus is reported to have perpetrated. Instead of laying the painted muslin upon the stretcher, please place it upon the floor, face down, of course, then put your framework upon it.

For convenience sake we will call each side of the woodwork north, south, east, and west. Commence then and put a few tacks into the middle of the north side; then run around, and without drawing the material too tightly, secure the south side; then go to the middle of the east, and, after adjusting it, draw over towards the west. The whole is now clumsily attached to the frame. Return to our original base, the north side, and, commencing from the middle, work each way, and driving tacks at small intermediate spaces, attach the whole side of the muslin to the wood; then, after removing the tacks temporarily driven

into the south side, commence at its middle and stretch tightly in each direction; secure it as you go, and act in the same manner for the east and west divisions, leaving the corners for the finishing of the task. They are so easily adjusted that description is needless. Mount the whole framework upon the large wheels—now so easily procured at any hardware store—in preference to the small castors used for furniture. I have much to speak of in regard to my experience with graduated, conical, and hemispherical backings. Circumstances have rendered it impossible for me to give an early communication to this current issue. I find my space much circumscribed, and will have to defer my intended remarks. My proposed trip to South America will, in all probability, materially change the character of my "hints," but I trust that, in relating what I may see of the practices of our professional brethren in foreign countries, I may after all make my suggestions more interesting, if not more useful.

## PHOTOGRAPHERS BURNED OUT.

We regret to hear that quite a number of photographic galleries have been burned out recently. On November 30th, Mr. B. Gray, Bloomington, Ill., suffered the loss of his establishment in this way. He had but recently fitted it up anew with new goods. His insurance did not cover half the value of his stock.

Mr. Gray is one of our progressive men, and we hope it will not be long ere he is doing a nice business again.

Mr. Z. P. McMillen, Galesburg, Ill., was also burned out, the result of a fire starting in a dry-goods store in the same block with him, at 1 A.M., the last day of the old year. We quote the following from his letter:

"In attempting to save a few of my negatives in the printing-room, my retreat was suddenly cut off, thus compelling me to rush out on the roof of the building, and when there, I also discovered, to my great horror and dismay, that I was surrounded by flames and smoke on every side. Happily, in my extremity, I found in the roof of an adjoining building a small hatchway, through which I dropped myself down in a public hall, a distance of about eighteen feet, on a hard floor, and from thence, with a badly bruised heel and sprained back, I broke open the hall-door and crawled, or slid, down the stairway into the street below, all of which was done in less time than it takes to write this. My loss is heavy, besides being thrown out of business. Our invoice before the fire was over *ten thousand dollars.* I had an insurance of five thousand five hundred dollars, which is all good. We saved the pictures and furniture in reception-room, and most all my best cameras; but lost my fine 'Roettger' 14-inch solar, and all my negatives (*twenty thousand*), my new $80 Bowditch chair, and a thousand and one other valuable articles, which were hard to give up; but as I made such a miraculous escape with my life, I am constrained to rejoice and say: *Praise God for his goodness and mercies towards me, in sparing me from a fiery grave.*"

Mr. McMillen is another live man and good photographer, and while we regret his loss, we share in his gratitude that he did not meet a horrible death as a result of his anxiety to save his goods.

Mr. Low M. Neeley, of Muncie, Ind., Mr. W. Cutter, of Galva, Ill., and Mr. William Johnston, of Abingdon, Ill., have also been burned out recently. Mr. Cutter writes us that he and his family only escaped with their lives in their night-dresses. Loss total.

And now at the fire in Concord, N. H., which occurred January 10th, we find that Mr. Benj. Carr, the well-known stock-dealer, and Mr. E. P. Gould, photographer, suffered the loss of their establishments, neither of them being fully insured. It seems that photography is having its share of fire recently. It is unusual to hear of a photographic gallery being burned out, much as insurance companies argue to the contrary, and in none of the instances recorded above did the fire originate in a photographic establishment. This is also another nut for insurance companies to crack.

Since writing the above we are informed that Mr. P. Olmstead, Davenport, Iowa, was burned out January 14th. Loss $2500, insurance having expired the day before. This makes eight fires in less than six weeks.

## PHOTOGRAPHIC ASSOCIATION OF WESTERN ILLINOIS.

It will doubtless be of interest to you and the numerous readers of your valuable journal, to hear of the success of the Photographic Association of Western Illinois, which was organized on the 17th of July, 1872; the regular meetings of which are held on the first Wednesday of October, January, April, and July. The benefit derived from these gatherings is apparent to every one connected with the Association; its object being to promote a more friendly intercourse among photographers (the want of which, I am sorry to say, was sadly felt in this section), and for general improvement in the art. The result thus far is all the most sanguine could have expected; brotherly love now exists where but a short time since was contention, jealousy, and I might say, hatred.

It also has been pecuniarily advantageous, as we get better prices for our work, consequent upon a better understanding with each other, and the production of better work.

Our Association is, in fact, a school of instruction; light is imparted, fogs cleared away, and various subjects appertaining to photography discussed.

At our last meeting the subject discussed was in regard to the development of negatives, and strength of developer. J. F. Barker exhibited five negatives, with prints from each; the negatives were developed with—the first one, thirty-grain developer, the second, twenty, the third, fifteen, fourth, ten, and the fifth, five-grain. The first was harsh and lacked detail, the second, better, though wanting a little in detail, while the other three were all that could be desired.

Three of our members have been burned out within the last two months, viz., W. Cutter, of Galva, William Johnston, of Abingdon, and Z. P. McMillen, of Galesburg; the first two losing everything, and the latter about four thousand dollars, after getting five thousand five hundred insurance.

Our next meeting will be held on the first Wednesday in April.

J. F. Barker,
Secretary.

## PHOTOGRAPHIC ASSOCIATION OF THE DISTRICT OF COLUMBIA.

The third stated meeting was held at Mr. Alexander Gardner's gallery, Tuesday evening, January 7th, 1873. This Association is steadily growing, new members being admitted every meeting. Messrs. Bicksler, Sarmiento, and Smith having been proposed, were elected to membership. Mr. Bates furnished a paper entitled "Photography," which was read by the Secretary. E. J. Pulman read an essay on "Requisites to Success in Photography."

The President, Mr. Ward, explained his method of making collodio-chloride, and printing porcelain pictures. He was not in favor of a preliminary coating of albumen, as it rendered it more difficult to obtain even tones in the pictures. The best method of obtaining a fine deposit or reduction of silver in the negative was discussed, the experience of the members being that best results were secured when the collodion film was as dry as it would bear to be before immersion in the bath.

Some remarks were made by Mr. Ward on the burnt-in enamel process, he having secured some very satisfactory results by that process. The old daguerreotype claimed a passing notice, and the cause of the granulated appearance of some pictures was explained, as was also the cause of the bluish fog sometimes seen. The interest in the Association is steadily increasing, and even those who have not yet identified themselves with us say it is a good thing.

The next meeting will be held at Mr. Bell's gallery, Tuesday evening, February 4th, 1873.

E. J. Pulman,
Secretary.

## PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

Stated meeting, held January 1st, 1873, the President in the chair.

The minutes of the last meeting were read and approved.

The report of the committee on the lantern exhibition was read, as follows:

The committee appointed to arrange an exhibition of the magic lantern have the

honor to present the following report. The exhibition took place in the lecture-room of the Franklin Institute, on the 13th of December. The slides were contributed by Mr. Albert Moore and Mr. Carbutt. The gratification given to those present was such that the committee suggest that another exhibition be given, under the auspices of the Society, in the month of February. All of which is respectfully submitted by

ALEX. WILCOCKS,
S. FISHER CORLIES,
DAVID PEPPER,
JOHN C. BROWNE.

Jan. 1st, 1873.

Report adopted.

On motion of Mr. Tilghman, a vote of thanks was tendered to Messrs. Moore, Carbutt, and Shoemaker, for the loan of their slides, and their valuable assistance on the evening of the exhibition.

Mr. L. T. Young, who was present during the evening, exhibited a collodio-bromide negative of the State-House. The emulsion was made according to a formula of Col. Wortley's, given in the September number of Anthony's *Photographic Bulletin*, and containing eighteen grains of nitrate of silver to the ounce. No acid was used except in the uranized ether, and here only sufficient to turn test-paper slightly. The plates were prepared within thirty-six hours after the sensitizing of the emulsion. The negative was brilliant and good.

Mr. Tilghman exhibited a work by Darwin, illustrated with photo-heliotypes, and entitled, "Expression of the Emotions in Man and Animals."

Mr. Carbutt exhibited a negative which had been exposed wet for about seventy minutes after leaving the bath. It was kept from drying by placing a second plate of glass close up to the film — about an eighth of an inch from it. The plate was scarcely surface-dry when removed from the holder, and the developer flowed with perfect ease, giving a negative free from fog or stain of any kind.

The President mentioned an article in 1873 *Mosaics*, by Mr. B. W. Kilburn, under the head of "The Power of Palladium," in which the author claimed that stains and fogging upon the negative were removed by the use of palladium. He fully concurred in Mr. Kilburn's experience. Quite recently a dry-plate negative was badly fogged by the action of pyro and silver; upon the application of palladium all trace of the fog vanished.

The President made a call for glass slides and prints to be contributed to an exchange between this Society and the Photographic Societies of New York and Edinburgh.

On motion adjourned.

ELLERSLIE WALLACE, JR.,
Rec. Secretary.

## PENNSYLVANIA PHOTOGRAPHIC ASSOCIATION.

THE stated meeting of the Association was held January 20th. President Rhoads, after a few remarks, installed his successor, Mr. Moore, as presiding officer for the ensuing year.

The committee on Messrs. McMullin and Narmont reported favorably, and those gentlemen were duly elected to membership.

A social communication was received from the President of the Chicago Photographic Association. On motion it was referred to the Corresponding Secretary.

A communication was read from our late Secretary, Mr. R. J. Chute. On motion a vote of thanks was unanimously given to Mr. Chute for his valuable services as Secretary to this Association from its inception, it being greatly to his influence and example that the Association is what it now is.

Mr. Rhoads also received the thanks of the Association for his past three years' services.

A suggestion was made by the Secretary that we employ the services of an artist of known ability to demonstrate before the Association the principles of art as applied to photography, such to be given at our regular meetings.

Mr. Carbutt gave his sentiments, which were very practical, that we might make our meetings very instructive by sitting a number of our members, using a magnesium lamp and reflector, as a light sufficiently good may be obtained in this manner for

purposes of instruction in lighting. The use of his lamp for that purpose was accepted.

He also gave a description of two lectures delivered by Coleman Sellers, Esq., at the Franklin Institute, wishing that every photographer could see them and learn as he had from them; he also promised to confer with Mr. Sellers in reference to a lecture or series of lectures before this Association.

The Executive Committee were authorized to make arrangements for such lectures.

Mr. Moore stated that at our next meeting we will have a fine oxyhydrogen lantern exhibition of foreign views.

On motion, then adjourned to witness an exhibition with the Marcy sciopticon, by Mr. Carbutt, of a large number of fine Niagara and other slides made by that best of all processes, the *Woodbury;* also a number of carbon slides by Cook, which were fine, but suffered in contrast with the Woodbury.

The above exhibition was greatly appreciated by all present, and we hope all will be present at our next meeting.

W. L. Shoemaker.
Secretary.

## PHOTOGRAPHIC SECTION OF THE AMERICAN INSTITUTE.

A stated meeting was held January 7th, H. J. Newton, Esq., the President, in the chair.

After reading the minutes and reports of committees a communication was read from Scovill Manufacturing Company, N. Y., presenting the Section for the library a large number of photographic books and periodicals, including nearly all the American works that have been issued. This magnificent present was reciprocated by a vote of thanks.

Mr. Chapman exhibited some negatives showing the matt silver stains alluded to at a previous meeting, and some Woodbury glass pictures of the moon, from Mr. Rutherfurd's negatives, sent him by Mr. Edward L. Wilson, of Philadelphia. Mr. Chapman also alluded to the stability of the collodion film, and read Mr. Rutherfurd's paper on the subject from the *American Journal of Science.*

Interesting discussions followed on cleaning glass and the use of the actinometer, after which officers for the ensuing year were nominated. Mr. Gardner remarked as follows:

Mr. Gardner.—I have said here that it would be well for photographers to bring their blunders before us instead of their best works. Sometimes we learn things from a blunder which we should not have learned by intelligent work. I have an illustration of that in my own experience:

I was dissolving some gold in the usual manner. After the gold had been dissolved in the acids, and the acids had been nearly evaporated away, I took a quantity of what I supposed to be chloride of sodium, and dissolved it in a small quantity of water, as usual, and added it to this gold in order to evaporate it a second time. As soon as I applied heat it began to decompose it and to precipitate it. At first I thought there was silver in the gold, but on asking my assistant if he had used the box in which I kept the chloride of sodium, he said he had put in some fine powdered sugar, so I had taken sugar instead of salt; and I discovered from this that sugar is an excellent thing to throw the gold back into a metallic state. I could not evaporate it to dryness, for it would burn around the edges, and the smell of the sugar would be very distinct. I then took the solution, and the portion of it that had gone back into metallic gold I again dissolved with the acids, and afterwards treated it in the same way that I usually do, and found it was perfectly successful, that the sugar had really done no harm, but had precipitated the gold.

Mr. Mason.—Do you think it precipitated the whole of the gold?

Mr. Gardner.—I know the exact number of grains of gold, and I do not think I lost five grains of gold out of one hundred and sixty.

Mr. Chisholm.—Could you save the gold-toning solution in that way?

Mr. Gardner.—I have not tried that yet.

The President.—Perhaps it will throw

silver down. In reference to dissolving gold, I think I might save those who make their gold considerable trouble. I do not believe that putting in salt and evaporating down amounts to anything practically. I make my gold in this way: I take two drachms of nitric acid, and three drachms of hydrochloric acid; in that I can dissolve a five-dollar goldpiece; that is pure enough; the copper is an advantage rather than a detriment. In this way you have one hundred and thirty-five grains of gold; reduce that so as to have eight grains of gold to the ounce, or one grain to each drachm, and you will always know when you pour it out how much you have. That will give you about sixteen or seventeen fluid ounces to a five-dollar goldpiece. That will keep. You may put in salt if you choose, I sometimes do that. This solution will go farther than what you buy. A few hours before you use it, neutralize it with bicarbonate of soda, borax, or any of the alkalies you have a fancy for, or according to the tone you desire. Bicarbonate of soda will give you a brown tone, and borax a black. Make it up a few hours before you want to use it, so that it will turn litmus paper blue, and I do not believe you can prepare gold to make better tones. When you make this solution it is acid, but you can neutralize it with bicarbonate of soda down to the point where a drop of it will turn green, or you can make it perfectly neutral, and add a little *aqua regia.*

Mr. Gardner.—The reason why I use the salt and water is, to free it from acid by the re-evaporation, and even then, with ten grains of gold to the ounce, the solution would require some kind of alkali in toning. I have made some experiments in this direction. I found that using a gold solution with much acid in it, so as to require much alkali in the toning solution, the picture when mounted and dry would turn a different color. I never could produce precisely the same results where a great deal of acid and alkali were used. I cannot, therefore, entirely follow Mr. Newton's prescription. I should at any rate evaporate the solution so that when cold it would be a hard mass to be dissolved in water.

Mr. Gardner.—In the gold I use there are just as many grains of salt as of gold, and I presume that in chloride of gold you will generally find that to be the proportion. It follows that one hundred and sixty grains of sugar will precipitate by the aid of heat one hundred and sixty grains of gold, in a strong solution of acid, where there is no water.

The President. — Perhaps it would throw down more.

Mr. Gardner.—I intend to try the effect of sugar in the old toning bath.

Adjourned.

## NEW ENGLAND PHOTOGRAPHIC ASSOCIATION.

The January meeting was held at Mr. Black's studio, but the evening being rainy only a few members were present. Mr. Burnham explained some experiments he had made, for the purpose of getting the eyes of a man who winked 364 times in one minute. Mr. B. accomplished the feat by placing in front of the subject a black screen, with a hole large enough for the tube, and at the same time shutting off almost all of the light, giving, say thirty seconds' exposure to the subject, and then holding before the lens a black velvet cloth for some thirty seconds; the eyes were perfect, and the experiment was successful Mr. J. W. Black gave a lecture, or at least made some useful suggestions in relation to *character* in the image, in which he stated, if no natural expression could be brought upon the face of the sitter, then the *pose* should be so arranged that the subject would appear in his most pleasing position. After some further remarks by several members the meeting adjourned.

Mr. J. W. Black has been appointed Professor of Photography in Harvard University. Mr. Whipple advertises to retire from business in fifteen months. A company has been formed in this city to work the Albert process. There seems to be plenty of funds, and a large business is expected to be done. Photographers in the Eastern States are using the solar camera to a greater extent than ever before, and claim that they make more money by so doing. The most popular

picture is made on albumen paper. Some I saw made were equal to contact work, and large prints seem to be in demand this season. The process vender is out in this section; several have been in this city, but as nearly all of us read the *Philadelphia Photographer*, no secret process has been bought in Boston that we are aware of.

In haste, truly yours,

J. H. HALLENBECK.

## THE MARYLAND PHOTOGRAPHIC ASSOCIATION.

THE Association met at the stock-rooms of Messrs. Dinmore & Wilson, on the evening of January 9th. After reading minutes of previous meeting, the Secretary read the Constitution and By-laws, as submitted by the committee, consisting of C. S. Mosher, C. A. Wilson, and G. O. Brown. Upon motion of Mr. Shorey the Constitution and By-laws were taken up, read in sections, and adopted in sections. They were finally adopted as a whole. The following photographers then signed the Constitution, paying their initiation fees and dues, thereby becoming members: N. H. Busey, P. L. Perkins, G. O. Brown, Walter Dinmore, C. S. Mosher, E. G. Fowx, C. P. Lusby, D. J. Wilkes, M. L. Robinson, W. J. L. Dyer, Geo. C. Mueller, Miles Shorey, W. A. Cox, H. Shaefer, D. Bachrach, Jr., M. Stahn, T. P. Varley, and C. A. Wilson. The President then appointed the Executive Committee, as follows: Messrs. Miles Shorey, D. Bachrach, Jr., P. L. Perkins, W. A. Cox, and C. S. Mosher. A communication was read from Mr. J. H. Pope, regretting impossibility of attending, and stating his willingness to do his share in upholding the art, &c. A vote of thanks was then given to Messrs. Dinmore & Wilson for the use of their rooms. Messrs. Dinmore & Wilson then offered the Association the use of their rooms *free* until the Association saw fit to engage other quarters. Their offer was accepted with thanks. Meeting then adjourned to February 6th, 1873.

G. O. BROWN,
Secretary.

## THE INDIANA PHOTOGRAPHIC ASSOCIATION.

IN accordance with the very sensible suggestion, or rather the very reasonable request of the editor of the *Philadelphia Photographer*, with reference to the secretaries of photographic societies, I will try to give a brief report of the January meeting of our Association. Rather more than the usual amount of business was transacted at this meeting, but the most important items, and, perhaps, almost all that would be of interest to the public, are the following:

It was resolved, that a committee of three be appointed by the President to select certain works from among the many excellent publications of the past and present, which shall form the nucleus of said library, the cost not to exceed ——, and which shall be paid for out of the treasury of this Association, and that the Association choose one of its members whose duty it shall be to take charge of said books, and be responsible for the same to the extent, at least, that he shall know, and be able to report to the Association at any time, their whereabouts.

The President appointed the committee as follows: Messrs. Elliott, Judkins and Brent.

Mr. Lon. M. Neeley, of Muncie, Indiana, a member of our Association, has recently met with a severe loss, having his gallery burned to the ground, and a resolution of sympathy, and offer of such material assistance as may be in our power to give, was passed.

The criticisms on the pictures brought in by Mr. Claflin for that purpose were, perhaps, as profitable to *us* as anything done during the meeting, but to undertake to give them to the readers of the *Photographer* without being able to hold the pictures criticized before them would be a folly, which I do not propose to perpetrate.

Mr. Dryer's special paper and the Society paper, the *Hoosier Heliographist*, were read and apparently relished by all in attendance.

J. PERRY ELLIOTT,
Secretary.

## CHICAGO PHOTOGRAPHIC ASSOCIATION.

The annual meeting of the Chicago Photographic Association was held at the store of Chas. W. Stevens, No. 158 State Street, Thursday evening, January 2d, and was called to order by the President, G. A. Douglass. The following named gentlemen were elected officers of the Association for the ensuing year: President, A. Hesler; Vice-Presidents, Chas. W. Stevens, P. B. Greene; Secretary, G. A. Douglass; Treasurer, Wm. Shaw; Executive Committee, A. J. W. Copelin, H. G. Thompson, G. A. Douglass. The interesting paper in *Mosaics*, 1873, page 29, by Mr. W. J. Baker, called *De Legibus*, was then read by Mr. P. B. Greene, and an animated discussion on the same ensued, especially on Mr. Baker's remarks on the stereoscope. The President then made the usual appointments, and the meeting adjourned.

There is nothing like having an association well officered, and we are glad to see our veteran friend Hesler ahead, or at the head at Chicago, and that our friend Douglass of the "Great Central" has the Secretary's portfolio again. We hope to get fuller records of the meetings in Chicago hereafter through his kindness. He is an earnest worker for the fraternity.

## TO SOCIETIES AND SECRETARIES.

We are glad to see how rapidly photographic societies are being formed all over the country. It seems almost epidemic. It is right, and, as we have said, we are glad to see it, for many of the great barriers which have retarded photography in the years that are gone can only be broken down by *association* of the members of our fraternity one with another. And not only should all such societies strive to do their part in breaking down all selfishness, all secrecy, all conceit, all low prices, and so on, but they should strive to circulate useful knowledge, and to be of some use to those who have not the same advantages. Every month, from every society, we ought to have for publication one or more thoughts or hints, or queries, or other matter of interest to give to the world. All such societies are invited to make our magazine their organ, and we will heartily join them in any efforts they may make for the advancement of *blessed* photography. And to all such we say, strive to be useful. One great drawback to many society gatherings is the great tendency on the part of some of their members to continually fight points of order, and debate trivial matters of a parliamentary nature, unimportant, and to the exclusion of more valuable business, wasting time, and disgusting members who come for the benefits of the association, and driving away the most valuable material in the society. Such procedure should be avoided. Let *photography* be your great topic, and let the immaterials go. *Be useful.* Routine business is of less importance than matters practical.

Now to the Secretaries of societies a word. Be good enough to send us the minutes of your meetings as early as possible always. We like to be prompt in publishing them, but sometimes they are received so late in the month that it gives us much annoyance. Give us such little items of practice as drop from time to time, and make your report as *full* as possible; also write on one side of the paper only. Above all, be prompt.

## MATTERS OF THE

The next Annual Convention and Exhibition of the National Photographic Association will be held in Buffalo, N. Y., beginning Tuesday, May 13th, 1873, instead of in Rochester, N. Y., in July. Mr. W. J. Baker is the newly appointed Local Secretary. The Permanent Secretary invites papers from *all* who choose to offer them, and requests that they be handed in to him before the opening of the Convention, that place may be made for them in the order of business.

The Executive Committee would be glad

if members in arrears would pay their dues at once to Mr. Albert Moore, Treasurer, No. 828 Wood Street, Philadelphia. This is positively necessary, as the committee needs funds to further the interests of the coming exhibition.

To become a member of the National Photographic Association costs $4; $2 for entrance fee; $2 for one year's dues, in advance; employees, half rates; life membership, $25. Apply to Edward L. Wilson, Permanent Secretary, Seventh and Cherry, Philadelphia.

Life Members.—One hundred are wanted at once to put the Association on a fair business basis. The last additions to the list are Messrs. W. Irving Adams and Elbert Anderson, New York, and Mr. E. H. Train, Helena, Montana. You can aid the Association very materially by becoming a life member *now*. The new certificates are beautiful.

The following have been added to the veteran list since our last issue: A. Hesler, Evanston, Ill., 1847; S. L. Walker, Poughkeepsie, N. Y., 1841; and Walter C. North, Utica, N. Y., 1848; Jex Bardwell, Detroit, Mich., 1841; Mr. Walker is probably the *oldest*, and Mr. North the *youngest* veteran living.

It has been decided to issue for the benefit of the members of the Association a *Manual* of the Association, which will contain the constitution, by-laws, list of officers and members, constitution of the relief fund, suggestions on life membership, national price list, &c., which together will make it very interesting and instructive. Owing to the action of the Association a number of names will be dropped from the roll for the non-payment of dues. See at once to yours. There are matters being developed that will, we think, make every man gain money who belongs to the National Photographic Association.

Mr. Willis Tandy, a member of the National Photographic Assocation, died suddenly, at his residence in Jacksonville, Ill., December 31st, aged 36 years. He had been a photographer about sixteen years. He had the esteem and good-will of all who knew him. He was doing a good business, and leaves a wife and two children in comfortable circumstances.

Mrs. D. T. Burrell, who with her husband, Mr. D. T. Burrell, North Bridgewater, Mass., was a member of our Association, died under very painful circumstances, Dec. 29th. She was beloved and esteemed by all who knew her.

Mr. E. Finch, of Waxahachie, Texas, whom all attendants at the St. Louis Convention will remember kindly, writes: "I am laying by a little of the wherewithal to enable me to attend our annual gathering. It *pays* to go, even from this far-off place. The increased excellence of one's work pays; the cordial greetings pay; the rest and recreation, and release from business pay. I have heard others say it paid to have such *brotherly* greetings, but all forget the sisters' greetings. My hand has hardly got over them yet. Oh! it all pays; let us be sure to go." It *does* pay. Begin to save up now to go to Buffalo. Some grand things are in preparation.

President Bogardus is one of the special jurors in the celebrated Jumel will case in New York, which prevented the meeting of the Executive Committee in time to report this month.

Mr. J. Perry Elliott has sent the Permanent Secretary a relic in the shape of a whole size group, presented by Mr. Charles P. Fetsch, an artist in Indianapolis:

"Mr. Fetsch says it was made in New York City, corner Broadway and White Streets, by Mrs. Wehnert, of Leipzig, Germany, whose husband was one of the inventors of photography, and he thinks this lady made the first photographs that were made in this country, and went back to the old country again on account of Mr. Langenheim, of Philadelphia, claiming a patent on paper pictures, and wanting her to pay for the privilege of making them, which she would not like to pay."

It is quite a curiosity.

Mr. Elbert Anderson's new book is called *The Skylight and the Dark-Room*, and contains full instructions for practice in both the dark-room and the skylight. Price $4.

## THINGS NEW AND OLD.

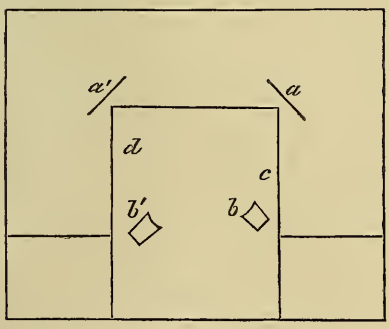
BY R. J. CHUTE (ROLAND VANWEIKE).

"WORKING A SOUTH LIGHT."

IN the January journal Francis Strauss, of York, Penna., gives his method of working a south light. I have worked a light, not quite south, but so situated that it received the sun all the fore part of the day. From my experience with that light I would suggest that Mr. Strauss use opaque curtains under his white muslin, so that he may *exclude* the light from such portion as may be desired. By arranging the opaque curtains so as to open or close different parts of the light, as illustrated in *Bigelow's Album*, that work may be used to advantage. Any drab or slate-colored material may be used, and can be put up conveniently and at little expense, by running them on wires, laterally across the light. Some further hints may also be gained from the Album in reference to the position the sitter is placed in under the light.

From the positions Mr. Strauss places his sitters in, as illustrated in his diagram, I should suppose that flat pictures would be the result. The sitter *must* be placed *in* the light, not away to one side of it.

The following amendments to his diagram will illustrate the method of working I would suggest:




Place the sitter on the lines *a* or *a'*, as may be desirable for the sitter, with the camera at *b* or *b'*, and arrange the curtains by the directions given in *Bigelow's Album*, for such effect as you wish to produce.

Placing the sitter fronting the light, or the sitter and camera on a line with the light, cannot, in the nature of things, produce good work under any light. Notice a view made with the sun directly behind the camera and see how flat and insipid it seems. Notice another of the same subject, with the sun at right angles, or nearly so, with the view, and see the boldness and relief. This is just as applicable to portraiture as to landscape photography. If we would have form and modelling, the light must fall *around* the sitter, and come mainly from one side.

For Rembrandt effects I cannot conceive of anything like a desirable light in the position indicated in Mr. Strauss's diagram. I would suggest that the sitter be placed at *c*, and the camera at *d;* or the sitter may be placed still nearer the south side of the light, if the form of the room will admit of it. Let the light be well screened directly over the sitter, letting the main light come from the lower part, and if possible with the situation of the light and arrangement of curtains, illuminate the shadow side from the top part of the skylight, so as to avoid using a reflector. For this purpose, a small light set in the nine feet angle on the north side, if it be available, as represented in the "horizontal view," would be found of great service.

The white muslin curtains I believe to be the best for receiving the sun, but they only serve as a protection against the too powerful sunlight, and leave the light in about the same condition as a north light with no curtains drawn. Now, to make the light manageable, additional curtains are to be used, or such an arrangement as would be considered suitable for a north light. With the white muslin alone there is very little more control of the light to be had when the sun shines, than there would be with a north light with no curtains or screens whatever.

In reference to the fogging, it is, most likely, due to some defect in the camera, or plate-holder, or light in the dark-room. A few experiments ought to solve the difficulty.

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MR. SCHOLTEN'S (*Mosaics*, 1873) article on *Backbone* is attracting a good deal of attention, and should be read by every one. It has been reprinted in Europe. We hope he will write on *Weak Knees*, soon.

## Errors in the Study and Practice of Photography.

BY GEORGE O. BROWN.

I.

THE absence of proper and mature judgment in many of the various manipulations of the photograph is often the cause which *prevents* the photographer from being successful when surrounded by the most favorable circumstances. In order to meet and satisfy the demands of his patrons, the photographer of to-day must be a different man from the photographer of ten years ago. It was not then regarded as strictly essential that he should possess rare and eminent attainments; but photography, in common with other departments of the fine arts, has advanced with rapid strides, and with its progression the important fact has been developed that, besides the mere formulæ, chemicals, and equipments, there must be mind and thought to insure success. The knowledge of this fact is gradually and effectively weeding out the impediments and obstacles which have so greatly retarded its progress as an art. Another important fact is being generally admitted, which is, that *reputation* (artistic) must be first made before success can be gained. Those who are striving for success, without first establishing a well-earned reputation, will have their labor for their pains, reaping naught but the bitter harvest of blighted hopes and fruitless labor, when too late for amendment or repair.

Until a more ardent and earnest desire is manifested to produce work which will lay a foundation for a lasting and worthy reputation (instead of seeking the mighty dollar) than is now exhibited by many, they will never become resplendent as bright stars in the photographic firmament, but will ever be eclipsed by those of the higher order.

In photography, it may be truly said, that, "forethought is the mother of success," and as Shakspeare says, "*the weakest go to the wall.*"

Business, in every department of enterprise, to become a perfect success, must be reared upon the solid basis of principle which will merit success. And the mere matter of accumulation and gain should never be considered as paramount, but ever be regarded as secondary in value and worth when placed in juxtaposition with the possible achievements of reputation, eminence, and renown. In no vocation is a strict adherence to these elements of success so highly essential as in photography. Yet there are very many who apparently consider that photography does *not* claim anything but the most ordinary and insignificant means wherewith to gain an astonishing success. This is a great error. A few moments' reflection will show, even the most fastidious, the utter absurdity of such a supposition. We might ask the questions who are the successful ones in the profession, and what has rendered them successful? We could mention the names of a score of them, and the response in the case of each would be the same,—*careful and assiduous study, and a love for the art.* Simple as this combination may be regarded, it is the most effective receipt, the only specific for the procurement of final success.

The more we study the more we discover our ignorance. When we find a man engaged in photography because he loves it, and makes dollars and cents a "secondary consideration," we can rest assured that man is in the right path, and will eventually make his mark in the photographic world.

The prosperous merchant, in all branches of mercantile enterprise, is the one who has prided himself on furnishing his customers with the best grades and qualities. The photographer need not be an exception to such a case, unless indolently indifferent in his manner of procedure. Many commence well enough, and then suddenly lose all interest; this is particularly so with those who have but little affection for the art, and have merely taken it up with the idea of making a good, easy living, indulging the vain hope of success without the proper exertion. Another class, who are fully informed as to what constitutes fine productions, strive unceasingly to produce meritorious work, and really succeed in gaining an excellent reputation, and then cease their efforts and *lose* all they have gained.

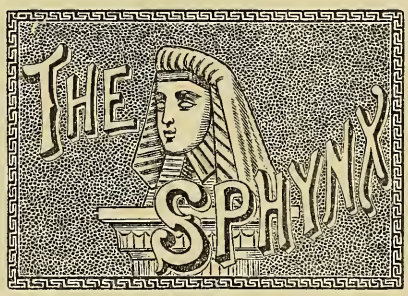
The only substantial advertisements which can be relied upon, and which will build up a photographic business, are the *pictures* themselves, and *one* defective or faulty photograph sent out will be productive of *more*

*harm* than *ten* good ones can counterbalance. Once having gained a reputation for artistic excellence, the public take pleasure in recommending and advertising your merits *gratis*. You need only thereafter work to merit your patronage. And let it be borne in mind, if you have a reputation for producing *miserable*, poor, and imperfect pictures, the public will be found equally *eloquent* in *praising* (?) your *accomplishments* (?). One or the other of these reputations you must necessarily have—take your choice, gentlemen!

Those who are instrumental in inflicting the greatest injury on themselves and the profession, are those who deem themselves too well informed (?) to consider it worth while to subscribe to or read photographic literature. Egotism being in the ascendency they become seemingly satisfied with themselves, and when business does not prove commensurate with their easy expectations, why, the public are then censured for want of proper appreciation of their merits. Little do the majority of the fraternity realize the great inestimable value that photographic publications have been in furthering the advance of our beautiful art. Since the commencement of these publications photography has been brought up from the depths of comparative obscurity, emerging from a condition of semi-darkness, and assuming its proper sphere in the galaxy of the fine arts.

There are photographers who, a few years ago, acknowledged almost with *shame* their vocation, but now are *proud* to be recognized as votaries of the art, and are seeking earnestly to obtain the loftiest niche in the temple of Fame. With such how true, "'Tis beauty calls, and glory leads the way." All who *study* the photographic publications cannot fail to see the necessity of elevating the art, which is but elevating themselves. If every photographer throughout the land could be induced to take and *read* a photographic journal, increased prices, superior work, and a higher appreciation of the art would be the result.






*Queries.*

I WOULD ask Sphynx if a pyrogallic acid and citric acid solution is injured by its turning red while in solution previous to using a redeveloper? E. W.

FULMINATE OF SILVER.—I wish to ask a few questions concerning the nitrate bath, which I fail to see explained in the light of photography. By *chemists* it is thus: To make fulminating silver, dissolve 40 or 50 grains of silver in about three-fourths of an ounce of nitric acid, sp. gr. 137, with the aid of a little heat, add two measured ounces of alcohol to the highly acid silver, &c.

But suppose we take a silver bath, say 80 fluid ounces, 40 grains to the ounce, which contains an ounce and a half of nitric acid, such as Mr. Black's bath. Should we wish to evaporate this bath to dryness, we neutralize it with ammonia, or with *soda; filter*, &c. Now, after the manner of chemists, what is thus formed? What becomes of the acid? Of course it is neutralized, but it surely leaves something in its place. Is there any danger of fulminating? Does Elbert Anderson say anything about this in his *work?*

T. M. W.

*Answers.*

To T. M. W. (above.)—If a silver bath containing a *large amount* of nitric acid is neutralized with ammonia or carbonate of soda, we will have a solution containing, in the one instance, nitrate of silver and nitrate of ammonia, and in the other nitrate of silver and nitrate of soda. If such solutions are evaporated to dryness, we obtain dry nitrate of silver, mixed with either the nitrate of ammonia or soda, but a very unsuitable article from which to make a new bath.

If this acid silver bath is an old one, it

contains a variable quantity of alcohol and ether, and its evaporation to dryness is attended with danger of explosion from the formation of fulminating silver. There would be no danger if such a bath was neutralized with carbonate of soda before its evaporation; nor if neutralized with ammonia, if care was taken to use exactly the required quantity; but should an excess of ammonia be used, there would again be danger of the formation of the fulminate.

The better plan to treat such a bath, when it does not give satisfactory results, is to convert it into chloride of silver, and put aside with the silver washes.

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In answer to the query of H. H. F., I would say, the first formula, on page 386, November journal, is Mr. Schreiber's, and was placed there by mistake; it should have been under his remarks, on page 387, with which it will be seen to correspond. Mr. Marston's formula is found under his name. He does not say what paper he uses.

Mr. Taylor's fixing bath is about the same as those given by Messrs. Schreiber and Saylor. A very practical article on retouching negatives may be found in *Photographic News*, December 13th, 1872.

R. J. Chute.

John Terras in our next.

## GERMAN CORRESPONDENCE.

*Photography of the Past Year and of the Future—Cry for a New Style—Mr. Petsch Resigns Photography—What Photography may Accomplish, and its Limits.*

The past year shows many advances in photography. The excellent *Mosaics* for 1873, which I have received just now, gives a comprehensive review, and at the same time the agreeable certainty that our beautiful art, which already has become the property of all nations, will continue to develop new applications. We have in the past year no startling discoveries, no new lens with an astonishingly large field of view, or extraordinary depth, or unheard of intensity of light, nor have we a really new dry process, nor a new positive process, nor a new method of printing *à la* Albert, but we have gained by a more thorough study of the methods now in vogue; we have clearer conceptions of the different effects and their causes, and more certainty of the results. In portrait photography the æsthetic principles, on which the effect of a picture depends, have been more generally acknowledged.

It is now ten years since two young persons established a photographic gallery in Berlin; then nobody knew them, now their reputation is world-wide, and their names are mentioned with respect on both sides of the Atlantic. I am speaking of Loescher & Petsch. In those days their atelier was most of the time empty, and but seldom a customer would call in, but in order to employ their time advantageously they, in conjunction with myself, made studies in posing and lighting. The result of these studies are those four heads showing the effect of front-light, side-light, top-light, and combined light; and these studies have been gradually republished in almost all the photographic journals of both hemispheres.

We had to hear a good many severe remarks about these four heads; some ridiculed them out and out, but nevertheless we continued our studies, and every Saturday the atelier of Loescher & Petsch was closed to the general public, and the day devoted to artistic studies and experiments. Soon the business of the firm increased. Loescher & Petsch's children's pictures and gems of German life were bought everywhere, and now after ten years the reception-room of Loescher & Petsch is always full, and every day and every hour is engaged for weeks in advance.

Mr. Petsch, one of the partners, retires, and his place will be occupied by Mr. Hartmann, who, as your readers are well aware, has done already good service in his essays on negative retouching, and at present he is engaged in revising the third edition of the work on "Negative Retouching," of the late lamented J. Grasshoff.

We see in this the splendid results of these æsthetic studies, which ten years ago were considered a curiosity, but the importance of which is now acknowledged by everybody, from China in the east to

America in the west. A namesake of mine related in one of our meetings that in travelling through Australia and China he met in Nankin a Chinese photographer, who posed according to our idea of æsthetic effect, and that his pictures were very creditable affairs. The Chinese and the Japanese are very apt scholars, and that they are open for culture in the æsthetical branches of art is shown by the numberless porcelain articles and woodwork which are imported from these far-off countries, and which in form and the style of painting unmistakably show the European influence. Many thousands of photographs are sent yearly to China and Japan, and enlighten them about European art and culture, while the pictures and photographs which we receive from them give us valuable information of the land and the habits of the people.

The question has sometimes been asked if artistic progress in photography is still possible? I do not put this question in regard to the generality of photographs, for there is still much room for improvement, and many who do not possess natural taste will never acquire any, but I refer to such prominent men as Salomon, in Paris; Kurtz, in New York; and Loescher & Petsch, in Berlin; and many others who are their equals, but which I have not room enough to mention in these pages.

We see in the work of these artists that the mechanical manipulations have been carried to the highest excellence. We find in regard to pose and illumination all that we can desire. The retouching is faultless, and the background and accessories are selected with refined taste. It seems, therefore, that everything which possibly can be done has been done, and still we want more. We want to see something new, original, a new style at any price. Who will give us a new style? Since Adam Salomon and the Rembrandt we have come to a standstill in this respect; even Anderson describes in his new work a great many good styles, but nothing new.

My friend Petsch, who is a good draughtsman, tells me: "I leave photography because I do not find satisfaction. In regard to the artistic requirements we cannot go beyond certain limits; even my very best productions are unsatisfactory to me. Of what use are my very best ideas about pose and illumination, when a person will not or cannot take the pose I desire, or when finally it makes a face which is unsuitable to the character? Or how can I represent the character of a person at all, when I do not know it, and have only at the best fifteen minutes of time to find it out, a space not even sufficient to give me a superficial knowledge.

"If after all this a picture succeeds or pleases it is luck, or due to the vanity of the public. I have sometimes delivered pictures which displeased me in almost every particular, and still the party represented was highly satisfied."

This is the judgment of a young man (Petsch is thirty years old), who has done much for photography, but who turns his back to it because he is dissatisfied with his work. An example like this might discourage many a votary of photography who has not reached the eminence of Mr. Petsch, if pecuniary gain (and this has not been wanting to Mr. Petsch) did not urge him on.

Photography has its limits, and beyond them we cannot go. These limits are partly our dependence on the model, partly the weather; we must try to do our very best within these limits, and we will not fail to find acknowledgments.

Art too has its limits, beyond which it cannot go. The most eminent sculptor cannot render the soft, flowing hair with the same effect as the painter or the photographer, still more difficult is it for the sculptor to render the most characteristic organ of the face—the human eye. The marble eye is cold and dead, even color does not give it life. I might venture the assertion that the eye of the photograph has more effect than the eye of the statue, although the necessity of keeping this ever-moving organ of the face in a rigid position while being photographed, is apt to give to it a dead expression. In regard to portraiture and landscape photography it is perhaps less than an art, while in other respects it is much more than an art. Its usefulness extends beyond that which we call an art. It extends over the whole realm of art and industry. Art requires an artist, a man with natural gifts

for the observation and reproduction of the beautiful, but photography can be learned by everybody; it is universal like the art of writing, and it will become still more universal, and as the art of writing fixes our ideas so does photography fix the visible form. The photographic technic will become the common property of all when the manipulations have been simplified. We can now buy ready-made sensitized paper; we will soon have ready-made sensitized dry plates, which can be sold at a low price. When this has been accomplished the universal employment of photography will be possible, provided that developing and fixing are not too troublesome.

Yours truly,

DR. VOGEL.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*New Method of Intensifying — Intensifying and Reducing Varnished Negatives.*

*Another Method of Intensifying.*—The tendency of the modern practice of photography has been to render intensifying processes comparatively unnecessary, many operators securing sufficient intensity in the first process of development. Occasionally it will happen, however, that some additional vigor in the negative is imperative, and although there is no lack of efficient methods of intensifying, every additional aid to the operations of the photographer are worth putting on record. The mode of intensifying to which I am about to refer, although not quite new as regards materials, is new to me in the precise mode of application. The agent employed for intensifying is gold solution, consisting of the discarded toning bath, which, having done its work with albumenized prints, instead of being wasted as with some, or placed amongst residues for reduction as with others, is impressed into the service of the operator for intensifying purposes. Gold solutions have been used occasionally, and with success, for intensifying, from an early period in the history of collodion photography; but always, so far as I am aware, after the negative was fixed. In the hands of one of my correspondents, Mr. Tulley, the gold solution is used before fixation, and, as will readily be seen, with some special advantages. The primary result is a fine deposit of gold, which blackens the image and considerably increases its printing intensity, effecting this with perfect uniformity and harmonious gradation. But this is not all. The finished negatives so produced have a singular brilliancy and freedom from foggy deposit on the deepest shadows. A brief examination of the working of the solution will show how this result is secured. The chloride, besides increasing the intensity of the image by the deposit of gold, also acts upon any loose foggy deposit produced by prolonged development—on the deepest shadows, where no action of light has taken place, a kind of deposit which too frequently mars the brilliancy of the resulting picture. By the action of the gold solution, this unnecessary and foggy general deposit of silver is converted into chloride of silver, which, on immersing the negative in the hyposulphite fixing solution, is dissolved and removed without affecting the deposit of gold on those portions of the image formed by the combined action of light and the developer, and a singularly clean and brilliant negative is the result.

*Intensifying and Reducing Varnished Negatives.*—I see that in a recent communication from our friend and *collaborateur*, Dr. Vogel, in referring to the use of tincture of iodine for modifying the intensity of varnished negatives, he accredits the idea to M. Unger, in the *Bulletin Belge* of April last. It is not a very vital matter in relation to which it is of much importance to establish an earlier claim; but as I can add one or two useful practical hints, it may perhaps be worth while to say that the process is my own, and was first published nine years ago. As my method, detailed in the *Photographic News*, May, 1863, was very simple, as well as very efficient, it may be interesting briefly to restate details. I was working at the time with a sample of collodion which, whilst giving fine negatives, had the fault of losing much density on varnishing, and this to a degree which rendered it difficult to estimate the right amount of first intensification. To

save some valued portraits, I tried the various known methods of dealing with varnished negatives without much success, and some experimenting led me to the use of iodine. I first applied to the varnished film strong alcohol to soften the varnish and render it permeable, and then applied tincture of iodine, strength about six grains in an ounce of spirit. In a few minutes the thin gray image assumed a deep olive tint, which was exceedingly non-actinic. I then rinsed with alcohol, and dried the plate with gentle heat. As a rule the surface was as glossy as before, no subsequent varnishing being necessary; if it were, a second application of varnish was applied with perfect safety.

Curiously enough, the same treatment prolonged was very efficient in reducing the intensity of overdense varnished negatives. If a varnished negative were found to yield hard prints from over-intensification rather than under-exposure, it was very easily modified so as to yield soft, fine prints. The negative film was softened with alcohol, and tincture of iodine applied as before, but instead of removing it when the olive tint was attained, it was suffered to proceed from olive to deep yellow, and from that to a delicate primrose, and finally to a light straw color, which permits the light to pass readily through the densest parts. The operation may of course be stopped at any point, judgment being exercised to determine the best printing stage. Iodide of silver is but very slightly sensibly affected by light, so that little change takes place during printing with negatives so treated. A slight increase of intensity is, however, the result of long exposure to direct sunlight in printing. I have used both methods here indicated with invariable success.

## OUR PICTURE.

It is a long time since we have presented a picture with our magazine feeling more assured that it would please than we do now. We have in this number a trio that we think ought to interest any one—pictures of live animals, all showing the greatest skill on the part of the photographer, as all will understand who have attempted this sort of work. The photographers are Messrs. Schreiber & Sons, No. 818 Arch Street, Philadelphia. These gentlemen—the father, and four, or five, or six sons, we can never count them—have a peculiar talent for this class of work, and have made it a matter of much study. Our readers cannot have forgotten their beautiful picture, "The Last Load," which appeared in our last volume. They have gone on quietly, making continual progress, and we do not think any animal photographer in the world equals them. All the ingenious devices they have for securing the pictures successfully of such subjects is embraced in their own persons. In answer to our queries, Mr. Schreiber writes us as follows: "The birds and beasts we send you were made in the same manner as we described in your September number, 1872. The instrument used was a card size Ross lens. The pictures were made with the aid of a cap, about a half second exposure. It will be well to mention again, that should any of my brother photographers wish to give themselves the trouble to make pictures of this class, be careful to study the nature of the animal you want to take, and use a little taste and plenty of patience, and you are bound to succeed." A quick lens, and a quick eye and hand, are all essential. We do not think we ever placed a picture in our magazine reflecting more credit upon the photographer than the present one.

The mounts were designed and made specially for us by Messrs. A. M. Collins, Son & Co., Philadelphia, and all will agree are very beautiful. One thing further we should notice. The prints were trimmed with the Robinson trimmer. A good many thousand were needed for our purpose, and Messrs. Schreiber declare they never would have undertaken the job without the trimmer. We are glad to see that the price of this capital little instrument has been reduced. It is invaluable.

Mr. Henry Stevens, a well-known bibliographer and bibliopolist, proposes the plan of photographing the titles of all rare and old books, for the convenience of collectors, and to call the art of doing the same Photo-Bibliography.

## THE PHOTOGRAPHIC WORLD.

THE two volumes of the *Photographic World*, 1871 and 1872, may be had for $6. They are splendid and useful books, and the pictures they contain are well worth the price.—Mr. T. P. Wilson, of Washington, Ill., says: "You might as well try to make collodion without the usual excitants as to endeavor to paddle your way photographically without the aid of a live journal, such as you furnish your patrons monthly."—Our foreign exchanges are delayed by fog—at sea.—The Photographic Exhibition at Dublin, Ireland, was very creditable.—They are agitating the policy of forming a "Commercial Photographic Society," in London.—No one has a photograph of the Emperor of China—the Son of the Sun.—We shall have copies of the Year-Book of Photography for 1873, in a few days.—We have a long, pleasant New Year letter from Mr. J. M. Davison, Pittsburg, Texas, for all of which we wish we had room. Among other things he says: "I regret the 'end of the *World*,' and hope few were less prepared for it than I. I shall hold on to the *Philadelphia Photographer*, for I have to 'weed out my own row' unaided, save by your magazines and many books I have purchased. I think I own the finest photographic library in the State of Texas, and but for it I should have had to retire in shame from the profession. Still I believe in asking questions. A man stands a poor show unless he does. Our country is flooded with *Photographic* ARTISTS (?) who boast of the number of men they 'hev taught the bizniss,' but who cannot make a decent picture." We shall give a few hints from his letter in our next number.—In a very interesting paper on the subject of the stability of the collodion film, published in the *American Journal*, Mr. Rutherfurd says: "The very numerous and concordant micrometric measures of star photographs, made by myself and under my direction during the past seven years, have inspired me with the utmost confidence in the stability of the collodion film, particularly when applied to a plate of glass properly albumenized."—The Scovill Manufacturing Company were sued by a photographer in New York last summer for giving him protosulphate of iron for hypo. As the crystals are so astonishingly alike (?), the green photographer used the iron to fix his prints with. He *fixed* 'em (*ironically* speaking), of course, but they didn't suit him, hence the suit against the Scovill Manufacturing Company. The photographer won and was awarded damages; but an appeal was taken, and the judgment reversed recently. E. Y. Bell, Esq., counsel for the Scovill Manufacturing Company. This last is a just decision, for even if a dealer does in his haste give a man the wrong ingredient, should the man use it and then be allowed damages?—Mr. Alva Pearsall, less than a year operating in his new gallery in Brooklyn, N. Y., was awarded at the late Brooklyn fair the "first diploma for crayon portraits and oil portraits, and first special mention for photographs." This is splendid; but where are those who preceded "our young friend?"—Mr. John A. Scholten, in his New Year letter to us, says his business last year was most satisfactory to him, and that the public like his work. He adds, "I had long been wishing for Mr. Anderson's book, which I had ordered of Mr. Tilford. I now have it, and am convinced that it is *the book*—a truthful and valuable one, and to me worth tenfold the money paid for it, for the illustrations alone. The building I am now in having changed hands, I shall soon look for another spot whereupon to locate, and this book has given me some new and very fine ideas in reference to skylight designs, dark-rooms, &c. It is also a very useful book for employees; in fact, one I have long looked for, and from which any of us may glean useful knowledge."—The members representing photography of the Advisory Committee of the United States, under Gen. Van Buren, for the Vienna Exposition, are Prof. John W. Draper, New York, M. Carey Lea, Philadelphia, Charles Wager Hull, New York, and Edward L. Wilson, Philadelphia.—The elegant gold medals awarded by the National Photographic Association, at St. Louis, for the best display of photography, to Messrs. Robinson & Cherrill and F. Luckhardt, have been sent them by the Secretary. They are very elaborate and handsome, and were made by Scovill Manuf'g. Co., N. Y.

# Editor's Table.

Words of Good Cheer.—In all our experience, as the editor of this magazine, we have never had such a perfectly overwhelming overflow of letters containing words of good cheer and well wishing as now. We should like much to sit down and personally respond to all such in equal quantity and length, but the 24 hours of the day would not give us sufficient time to do so. We can only say that we are very sensibly appreciative of such kindness, and shall strive to repay it, by giving one and all a first-rate magazine. We rely *much* for our ability to do this on the same good will and co-operation which you have poured down upon us during the last few weeks. Thanks, to one and all, for it sweetens our labor and makes it pleasant.

Large Orders.—The dealers also seem to have "broken out afresh," for from near and far they are sending us unusually large orders for subscriptions and books. Messrs. G. S. Bryant & Co., Boston, seem to head the list with *nearly one hundred;* Mr. B. H. Howe, Columbus, Ohio, sends *twenty-four subscribers at once,* and Messrs. John Taylor & Co., San Francisco, California, send us *twenty-two* in one order. Other dealers also are adding much to our list. If this is kept up we shall increase our number of pages.

Tremendous Order.—Mr. J. Landy, Cincinnati, Ohio, has just completed an order for 65,000 cabinet prints, portraits for a work entitled "Cincinnati Past and Present." That is a big order. Mr. Landy has sent us a 16 x 20 life-size head of "the man who laughs," copy of a painting of a man laughing his hardest and his best. It is capital.

Our Pictures.—We want *everybody* to *try* to make a picture for our magazine this year. When you get any good subject think of us and send us a proof.

Error in Price.—By some blunder we cannot explain, we allowed Mr. Anderson's new book to be advertised in *Specialties* at $3.50 last month. It was a mistake; $4 is the price.

Mr. F. A. Constable, a talented amateur photographer of New York, has favored us with a series of most interesting stereographs, of a variety of subjects which are exceedingly fine, and would shame many of our readers who make photography their business. One of these views, called "On the Piazza," was made on a Col. Stuart Wortley dry plate, imported by Mr. Constable in May, exposed in August with a wide-angle lens, 3-inch focus, 3-16 stop, 20 seconds time. We cannot see how anything can be softer, and richer, and cleaner than it is. Mr. Constable's work throughout shows careful, cleanly work, and the possession of an artistic taste in the selection of subject. We congratulate him.

Mr. J. Inglis, Montreal, Canada, has favored us with several very characteristic 8 x 10 bust pictures of gentlemen, lighted and printed by a method which is peculiar, and by which he claims to obviate the necessity of retouching the negative. They are fine.

Pictures Received—*Portraits.*—From Mrs. Raimheld, Marshalltown, Iowa, a cabinet picture containing the portraits of 212 babies; from Messrs. Walter C. North, Utica, N. Y., A. Marshall, Boston, and Frank Rowell, Boston, some cabinet photographs of most excellent quality; examples of their work of various sizes from Messrs. J. H. Hunter, Jonesville, Michigan; Wm. H. Kibbee, Johnstown, N. Y.; Jos. W. King, Union Springs, Ala.; Messrs. J. C. Toler, J. M. Davison, and F. Clark & Co. Mr. Toler sends us specimens of his work made each year, since 1866, showing what great progress he has made. Mr. Davison is on the right track, and being a close student, will soon reach up. Messrs. Clark & Co. are excellent photographers in Pittsfield, Mass. Their portrait of Rev. Dr. Todd is very fine. They also send us some stereo views, which show them to be fully up in that branch of our art also. Mr. J. Parker, Jr., Newport, N. H., has favored us with some interesting stereo views of winter scenery.

The Weston Patent Burnisher.—Just as we were about to go to press we witnessed the wonderful doings of Mr. E. B. Weston's patent photograph burnisher or press, a cut of which appears in the advertisement on our cover and a description of which please find in *Specialties.* It imparts a polish to the photograph, far superior to the California enamel or gelatin process, and gives richness and roundness to the picture. We know such a polish some consider inartistic, but the people like it, and it is most readily accomplished by this machine. In our next number

we shall have more to say about it. The parties having it in charge we believe to be entirely good.

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Items of News.—Mr. Joseph Zentmayer, the eminent optician of our city, has been made an honorary member of the American Philosophical Society. This is a rare honor, to a most talented and worthy gentleman.—Mr. Charles A. Zimmerman, stockdealer and photographer, of St. Paul, Minnesota, recently made us a call on his way to New England. Too cold for him in St. Paul!—Mr. John L. Gihon, our valued contributor, has departed for Montevideo, S. A., where he joins Messrs Chute and Brooks. Mr. Daniel Murphy, Mr. Gihon's special printer, accompanies him. We hope we shall soon have some notes on the art in South America from Mr. Gihon, and that he will find it as pleasant there as he anticipated. Meanwhile we wish him a safe passage.—Mr. J. W. Morgeneier is pushing his "*Art School*" in Sheboygan, Wisconsin, retouching being the *specialty*.—Mr. Louis de Planque, of Corpus Christi, Texas, is travelling the State over with his stereopticon. The newspapers praise his exhibition very highly, and we hope he is making all the money his enterprise deserves.—Our next picture will be by Mr. Frank Jewell, Scranton, Pa.—We have received a copy of "The Photographer's Friend Almanac, for 1873," from Mr. Richard Walzl, publisher, Baltimore, Md —Mr. Coleman Sellers is delivering a course of lectures on photography at the Franklin Institute. We hope to make a report of them after they are finished.—Mr. Henry Biddle, late of Hamilton, Canada, has opened a new gallery at No. 344 Pearl Street, Cleveland, Ohio, which he calls the "West Side Studio." Success to him.—The Photographic Societies crowd us so this month we have to lay over several valuable papers, among them Mr. E. J. Pulman's excellent paper read before the Photographic Society of the District of Columbia. —Please send us little items of news as you have them.—We have engaged as one of our regular contributors, Mr. G. O. Brown, Baltimore, late editor of the *Photographer's Friend* of that city. —Messrs. Kilburn Bros., Littleton, N. H., have issued a second supplement to their catalogue, including a large lot of views of the Boston ruins. —Mr. Charles A. Saylor, Reading, Pa., has shown us his large gold medal recently awarded him by the Berks County Agricultural and Horticultural Society for the best display of photographs. It is very handsome, and his work deserves it.—A Photographic Society is about being started in Montgomery, Ala. Good for Alabama. Next!

Stereoscopic Views of the West.—The lamented Greeley must have had photography in his mind, when he uttered that famous piece of advice—"Young men, *go West!*" We are led to this idea by two parcels of stereographs on our table, of scenery in the far West; the one being a series of views of the great Yellowstone region, made by Mr William H. Jackson, photographer to the U. S. Geological Survey of the Territories, Prof. F. V. Hayden in charge, Washington, D. C., and the other a series of views in the Yosemite Valley, and amid the "Big Trees" of California, by Mr. J. J. Reilley, Stockton, California. The views by Mr. Jackson are, of course, the freshest, the other localities having been "photographed to death" by those who preceded Mr. Reilley. The latter gentleman has, however, done remarkably well, and secured some most excellent engravings. Some of his "reflections," such as 496, 337, 414, and 461; of his "big trees," such as 463, 413, 430, and 575, being the best we have seen of those subjects for a long time. He has some negatives for sale.

Mr. Jackson is an artist born. Neither Braun or England in the Alps ever did fuller justice to fine scenery than Mr. Jackson has done to the beauties of the great Yellowstone. The snow-clad mountains, the roaring rivers, the tangled foliage, the great hot springs, some of them in violent action, throwing water some sixty feet high, the great canyons, the roaring cascades, the placid lakes, the craters of the Grand Geyser, the basins of the hot springs with their fantastic formations of crust, the mud puffs, and the dizzy crags are all most faithfully caught and brought to our table, without any trial on our part with stubborn pack-mules, alkaline dust, limestone water, or dizzy, wearying heights to climb. The negatives are as neat and clean as if made under the most favorable circumstances, and withal the points chosen were directed by an artist's skill and good taste. Alpine scenery could not be more enjoyable or more strangely excite the desires of one to whom mountain climbing is a fascination, as it is to us. We have never seen a more charming series of Western views. They are mounted on a delicately tinted mount with polished red edges, the production of Messrs. A. M. Collins, Son & Co., of this city, which gives them a very beautiful appearance. Mr. Jackson we are glad to know has also made some admirable negatives for our journal, which will appear in due season, when we shall have more to say on the subject. He has also made a series of 11 x 14 negatives, fully equal to the smaller ones.

THE

# Philadelphia Photographer.

Vol. X. MARCH, 1873. No. 111.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## IMPORTANT NOTICE.

MEMBERS of the National Photographic Association, and all interested, will please take notice that the next Convention and Exhibition is to open on Tuesday, July 15th, and not on May 13th, as before announced. Please read the proceedings of the Executive Committee on another page.

## The Year-Book of Photography.

THE *Year-Book of Photography*, for 1873, which, our readers are aware, is edited by our esteemed friend and correspondent, Mr. G. Wharton Simpson, London, England, has arrived for 1873, and we have had such enjoyment and profit with it, as we hope many of our readers will have, now it is available to them. It is replete with most useful suggestions on nearly every branch of photography, by gentlemen whose thoughts appear in its pages annually, and by many new contributors. The articles are short and to the point, and one can scarcely open a page without seeing some useful hint. The *Year-Book* is *always* good, but this year it seems to have exceeded itself. We congratulate our esteemed coworker on his success in gathering so much good into so small a space. We have received a full supply, and for a full list of the contents refer our readers to the advertisement.

## THE "BERLIN" PROCESS.

ABOUT three years ago considerable excitement prevailed among the photographic fraternity, on account of the actions of a shrewd New Englander, who was "going the rounds" selling what he termed the "Berlin" process. Some photographers paid him $250 for it. It came out soon that the whole secret consisted in making negatives in the usual way, but with the reverse side of the glass finely or coarsely ground. The prints from negatives thus made were extremely soft and beautiful, having the appearance of being printed from finely retouched negatives. The great drawback to the process, however, was the cost and difficulty of obtaining a good quality of ground-glass, and for this reason the process fell into disuse, even by those who had paid so dearly for it. It was a pity to see a process which promised so much, lost altogether, for the effects obtained by it were very beautiful. It is likely to come into use again, however, and this has been made possible by the introduction of Mr. Hance's "*Ground-Glass Substitute*," which gives to glass coated with it a most beautiful ground-glass surface. Moreover, this substitute gives us advantages over the old process, besides cheapness and the ease with which it may be obtained. When albumenizing a plate in the old process, the albumen which run over on to the

ground surface, could only be removed by cleaning it with powdered emery, thus endangering the film. Now the "*Substitute*" need not be applied until the negative is entirely finished, even to varnishing.

The whole process as at present worked, therefore, stands thus: Albumenize the glass and make the negative soft, thin, and full of detail in the usual way; varnish and coat the reverse side with Hance's ground-glass substitute, and print in soft light. This is not a mezzotint process. The effect is apparent over the whole picture, and is not lost in the shadows; we think it only needs to be tried to be liked. Best of all, it may be applied to negatives already made with the best of success, so that it is easily tried, and no charge for the secret. Softness rather than sharpness is the great desideratum at present, and here is a really good way of securing it at a very slight additional cost of time and money.

## A CALL TO BUFFALO.

"I AM not a little proud of having made the only paying exhibition," writes our former Local Secretary Ryder; an honest feeling which no man will begrudge him; a just boast, while it is the wish of your present Secretary to be able to veto friend Ryder's further indulgence in after July.

How was it done, and how can it be done again?

It was accomplished first by keeping expenses down, secondly by exciting the interest of the citizens of Cleveland in the Exhibition. If done again, it must be brought about in the same way.

I ask the help of every member of the

to bring about this desideratum.

In a former article I endeavored to set forth the advantage it would be to each man's self to be an exhibitor. You will readily see also that in proportion as the exhibition is large and various it will be attractive to outsiders, so you cannot help yourselves or assist the Association more effectually than by sending photographs. It is not solely the fine work which will be interesting or instructive.

Of all the pictures exhibited at one of our meetings none were more commented on than some very bad pictures, in the same frame with some quite good ones, all by the same man. "Showing progress," as he modestly said. They did show progress, and those few pictures outdid the best work in the good they effected.

Every one saw them, every one spoke of them, every one wanted to see the author. Old photographers took him by the hand, spoke words of praise and cheer; he felt encouraged, and continued his progress, and to-day ranks as one of the leading photographers of the country, and I have no doubt looks back to that Convention as a bright, if not the turning, point of his artistic career.

He has promised to be at this next Convention, and has important instruction to communicate. He is under no necessity now to exhibit poor work in order to show his progress.

What such a man has done any of us can attempt. But I am wandering. The point is to make outside interest. I believe that this can be easily effected in Buffalo, if you all take hold in the way indicated. We have symptoms of interest already. The papers have published articles calculated to draw favorable attention to us, and the citizens are talking about us, and prepared to see a fine show.

Do not let them be disappointed. Give us an exhibition that those who come will go away to talk about, send their friends to see, and come again themselves.

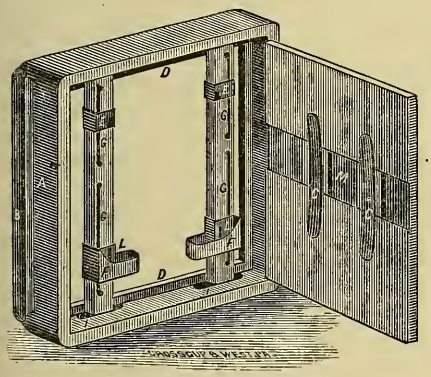
Full information how and when to send will be given in due time.

W. J. BAKER.

APPRENTICESHIP.—Mr I. B. Webster, Louisville, Ky., one of the Committee on Apprenticeship, says, that some months ago he received a communication on the subject from some one whose name he forgets, which he lost before he could answer it. He promises that if the party will write again that he shall have full justice.

## Buchtel's Improvement in Photographic Plate-Holders.

MANY photographers do not realize how much silver they waste in a year by means of the drip from the plate-holder, but it is pretty generally conceded that said dripping is a very active agent in the destruction of plate-holders. Some three years ago we described a method of saving this waste of silver and destruction of plate-holders by means of an ingenious plate-holder, the invention of Mr. Joseph Buchtel, Portland, Oregon Mr. Buchtel was not entirely satisfied with his patent plate-holder, however, and wisely withheld it from the market until he could perfect it. He now thinks he has done so, and the cut below represents his device.




"The principal features of improvement are set forth in the drawing, where G G are the uprights supporting the cups F F and bearing-points E E, with the springs C C, movable in the dovetail-guide M across the door of the holder. Two long slots are cut through each of the pieces G, forming the springs for cups F and points E. The springs C on the door, pressing on the glass supported in the cups F and on the points E, press the pieces G against the rabbets D in the back of the holder, the pieces G not sliding on ways, as formerly, now making it much easier to keep clean.

"By making the springs of the pieces G obviates the necessity of attaching any spring material to the cups F, thereby making them much easier. Where cups were made of glass or other rigid material, it was found to be important to make them in the manner for use on springs as herein shown.

"By having the springs C movable across the door it is found that the points of pressure on the glass are much nearer the bearing-points than by the old method of pressure in the middle alone, this middle pressure sometimes warping thin glass or plates out of focus; but by pressing them at the corners all this is avoided. For large plates longer springs are used; but all are made to fit in the dovetail-groove M.

"The cups F are made somewhat similar to former ones, with the exception of the bearing-place for the plate, shown by the letter L. These are made a little wider at the bottom than at the top, and continue almost to the bottom of the cup."

The advantages of this device, which are numerous and great, Mr. Buchtel details fully in his advertisement, and (since we have examined his plate-holder carefully), we believe he does not overrate them. His invention seems entirely practical, and we are glad to know that Scovill Manufacturing Company, New York, will manufacture the holders for their (American Optical Company) excellent boxes.

## TO FOREIGN EXHIBITORS.

THE handsome gold medal of the National Photographic Association is offered for the best display of work from any one foreign country at the next Annual Exhibition at Buffalo, N. Y.

Last year's medal for Germany was awarded to Mr. F. Luckhardt, Vienna, Austria, and for Great Britain to Messrs. Robinson & Cherrill, Tunbridge Wells, England.

This year it is hoped the competition will be much greater than ever before.

Competitors will pay their own charges for carriage both ways, and their pictures will be returned to them shortly after the close of the Exhibition. No duties will be required, as by act of Congress such pictures will be admitted duty free. We give a copy of the act, as follows, from the laws of the United States:

[PUBLIC—No. 25.]

AN ACT *to provide for the Admission of Paintings, Statuary, and Photographs for Exhibition free of duty.*

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That all paintings, statuary, and photographic pictures imported into the United States for exhibition by any association duly authorized under the laws of the United States or any State for the promotion and encouragement of science, art, or industry, and not intended for sale, shall be admitted free of duty, under such rules and regulations as the Secretary of the Treasury shall prescribe: *Provided*, That bonds shall be given for the payment to the United States of such duties as are now imposed by law upon any and all of such articles as shall not be re-exported within six months after such importation.

Approved March 5th, 1872.

It is desirable to have parcels shipped as early as possible to arrive here at least four weeks before the opening of the Exhibition.

Direct all packages to the National Photographic Exhibition, care of Edward L. Wilson, Secretary, Philadelphia, Pa.

Will foreign photographic journals please copy the above? For further particulars address the Secretary.

## TRIFLES.

BY LYMAN G. BIGELOW.

SOME wise man has said, "Perfection is made up of trifles, but perfection is no trifle." Of whom is this saying more true than of practitioners of the art photographic? Where is precision and accuracy so all-important in the small things of business as in our own? We all say there is none, yet all of us in daily work deem something each hour "a mere trifle," and we almost always find in the future that our finished work lacked at least that trifle short of perfection, and had we not neglected the trifle, we would have made a more creditable showing of skill. Perfection, although the *aim* of all *ambitious* workers, is never attained, or at least we must not let conceit of ourselves lead us to think so, for though we cannot detect a flaw in the structure we have reared, yet an abler man may, and by his criticisms make us feel very humble indeed, if it does not tend for a time to discourage us. In fact the *sage* is *modest*. Even though we reach a point beyond the criticisms of our friends, who at best are partial, do not let us suppose our work "good enough," for it is not probable that they who have never made pictures a special study are as capable of judging of them as those who have, for thus we will stand in our own light by neglecting to look for those trifling defects which, put together, make the sum total of success or failure. It would require a large space to enumerate those things which are too often considered trifles by photographic operators. Each of us if we but stop to think and watch for trifles will doubtless find enough to keep us busy; and because, on guard, will constantly improve. The cause of superior skill in one person more than another, is that the one has studied and applied his knowledge, kept rooting out the trifling errors and replacing them by the practical trifles which, in the ultimate, make him what he is. Of course there is much in natural or inherited genius or adaptability, but not so much as is generally supposed; for witness the many examples of men in all professions, where the steady, untiring, plodding worker has finally eclipsed the natural born genius, and has risen to the highest honors the world could confer. By joining the National Photographic Association, and attending its annual meetings, we take so long a stride in advance as almost to insure success; in fact it *is* success to the worker, and any who doubt it have but to turn their attention to the work of those who are two years in membership. Local societies, which ought to serve as tributaries of the National Photographic Association, are also of great importance in advancing our knowledge and promoting good fellowship. I hope at the next meeting at Buffalo to meet a host of new members, and that every one of "the old guard" will be present at roll-call, and that *all* will *try* to *bring* their best work for exhibition.

## SOME OPTICAL DIFFICULTIES

CONNECTED WITH PRODUCING LIFE-SIZE PORTRAITS DIRECT.

BY JOHN M. BLAKE.

Much expense has been incurred in the attempt to take life-size portraits in the camera, or to approximate to this as nearly as possible. Most photographers know from experience that almost insurmountable difficulties arise by the time they have attained to even a fraction of the desired amplification. It may be a matter of interest to many to have some explanation of the optical difficulties to be encountered.

As a preliminary, we will consider what can be done with a small lens in regard to shortness of exposure. The rapidity of working of a lens, for the most part, depends upon the ratio of its aperture to its focal length. A practicable aperture for a portrait lens is diameter one-fourth of the focus. They can be made of larger aperture, but in attempting to do this difficulties increase in a rapid ratio; since with the ordinary formula increased depth of curvature is required, and the opposite aberrations which opticians introduce to correct one another, cannot be made to balance perfectly over the whole extent of the curves.

We may now proceed with the first illustration. For simplicity we will assume that a lens of twelve inches focus, and of three inches aperture, is found to give a passable depth of focus and rapidity of action, at a distance of sixteen feet from the sitter to the plate. It follows that the image will be one-fifteenth of life-size. Now keeping the same distance between the sitter and plate, let us inquire what sort of a lens would be required to give a life-size image, and also have the same rapidity of action as the smaller lens. One of the conditions for copying equal size is well known to be, that the lens must be halfway from the subject to the plate. The focus of the lens under these conditions of distance must therefore be eight feet, and the aperture required to give the same rapidity in the large lens, being one-fourth the focus, would be two feet. It can be easily shown mathematically that the rapidity of these two lenses will be equal.

We now come to another difficulty. The small lens takes the rays almost parallel from the sitter, and simply converges them to a focus; but the large lens has to deal with rays already strongly divergent, and it must, in fact, have double the converging power. We have seen above that it will not do to increase the depth of curvature to give it this power; but we might manage in this way,—construct two large combinations on the model of the smaller lens, and place them in reverse positions, the back lens of one towards the plate and of the other to the sitter. Thus we will require, to complete our mammoth lens, eight large lenses of flint and crown, each two feet in diameter; the greatest thickness of an individual lens being four or five inches. Of course one of the great difficulties to be encountered is to obtain colorless and perfect glass of these dimensions.

It is quite probable also that the depth of focus would be so small that the lens would be of no practical use, provided it could be properly constructed.

And further, it may be remarked, that as we go on decreasing the focal length of our lenses until we arrive at dimensions as small as can be of any practical use in portraiture, we find that the difficulties of correction diminish, although the same relation of aperture to focal distance is preserved; also, at the same time, the depth of focus is increased. We may expect accordingly that these difficulties will increase as we go up in the scale, and long before we attain the desired dimensions present an insurmountable obstacle to further progress.

So we may rest assured that it is useless to expect that a lens can ever be constructed to produce life-size portraits with the same rapidity that smaller images can be obtained by a lens of moderate size, and short focal length. It follows that we must remain content with direct negatives far short of life-size, and for the rest trust to enlargements. The improvements that have been made during the last year, with the latter, open a new field in portraiture, which has before been barred by the optical difficulties connected with the direct production of large negatives.

## WORKING A SOUTH LIGHT.

HAVING seen a letter from Francis Strauss, of York, Pa., in your January number, on the subject of "south lights," and also your desire to receive any ideas on the subject, I have concluded to give my experience of running a south light for five years, both here and in the South, hoping it may benefit all who may be unfortunate enough to have one and unable to control it.

In the first place my top-light is about 10 x 15, side-light about 8 x 15, with a pitch of about two feet from the highest part of the top-light to the top of the side-light.

I have six curtains on my top-light, divided in the centre, so that I can slide them either way, as they run on wires, without being held fast at either end.

My side-light has ten shutters, which can be opened separately or all together if the light is weak; and, lastly, my glass is pretty heavily blue-frosted.

Now, suppose I have a victim to sit. I place him under the centre of the skylight and draw down all the curtains and shut off the side-light. Now there is no light at all on the subject or at least a very subdued one. I then open my last side-shutter, which is about four feet from and in the rear of the sitter, and light up the side of the head and top of the forehead, and this manner of lighting also throws a very soft effect back of the head, giving detail to the hair and rounding the figure up. Now we find that the shadows are a little too strong on the other side of the face, and to remedy this I draw back the left half of my first or second curtain (I am now supposed to be facing the sitter), according to the time of day, enough to give the desired effect, and use no side screen (which I consider spoils the effect of every picture in which it is used).

I prefer this way of lighting to any other, as I think it gives better effects, and a good many photographers to whom I have shown some of the results coincide in that opinion also.

This way of lighting, which was new to me, I found out by accident, by being compelled to make a sitting late in the evening. I opened the back side-light in order to shorten the exposure, and got a very good result, since which time I have always practiced it, and always get pretty good effects, in fact better than I could in any other way.

Now, the trouble with Mr. Strauss is, that his skylight and side-light glass is not frosted heavy enough, and as he says nothing about curtains on his side-light I suppose he has none, and of course has too much light from that direction, and flattens all his pictures.

I don't think there is any danger in having too much light, for if you don't want it you can very easily shut it off.

Inclosed you will find a few samples of this manner of lighting.

Now if the above will help to enlighten any photographer on this subject I will feel satisfied.

There were several attempts made at photographing in my present place of business, 202 South Second Street, but abandoned, on the ground that it was impossible to make a good photograph under this light, and I was laughed at when I attempted it, but think that I have at last succeeded in mastering the difficulty as far as possible.

Yours respectfully,

CHARLES S. MCCORMICK,
202 South Second Street, Philadelphia.

We have examined some of Mr. McCormick's work made as above, and it is excellent. We do not think he could make better with the best of lights. He deserves great credit for what he does.—ED. P. P.

## Proceedings of the Executive Committee of the N. P. A.

A STATED MEETING of the Executive Committee of the National Photographic Association was held in Philadelphia on Friday evening, January 31st. Present, Messrs. Bogardus (presiding), Adams, Moore, Rhoads, and Wilson.

After the reading of the minutes and the hearing of the reports of committees, new business was proceeded with. Letters were read from Messrs. Hesler and Fitzgibbon, members of this committee, assenting to the change of place made for the next Convention; from Dr. C. R. Morgan,

Philadelphia, accepting the office of Phonographic Secretary for 1873; and from Messrs. Howson and Bell, with their opinions on the "Shaw" patent.

Mr. Adams reported having procured and forwarded the medals awarded them at the St. Louis Exhibition to Messrs. F. Luckhardt, Vienna, Austria, and Robinson & Cherrill, Tunbridge Wells, England. The Treasurer, Mr. Moore, reported a balance of $129.89 in the treasury.

Mr. Adams's motion, that previous to their names being dropped from the roll, that the Secretary once more ask delinquent members to pay their back dues, and if no response be made by the 15th inst., that their names be dropped, was carried.

It was resolved that the medals for the best display of foreign work be offered this year as heretofore. The Committee on Life Membership reported having received Messrs. W. Irving Adams and Elbert Anderson of New York, and E. H. Train, Helena, Montana, as life members, and asked the committee to sanction the same, which was done unanimously.

The subject of making the next Exhibition free to the public was discussed, and the President, Secretary, and Treasurer were appointed a committee to further discuss the matter with power to act; the feeling of the committee being that a free exhibition would be best.

The same committee were authorized to make regulations for the admission of photographers and members to the meetings of the Association at the next Convention; the feeling being that those not members of the Association should not be admitted without first paying a fee. A new badge for the next Convention was also suggested, and the matter referred to the same committee.

Mr. Adams was appointed a committee of one with power to procure a charter for the Association in the Legislature of New York, to report at a future meeting of the committee.

Mr. Wilson presented a copy of a bill for and a petition to Congress, asking for the establishment of a National Photographic Institute for the education of photographers, and asking therefor an appropriation of $30,000, the said papers being in the hands of Hon. A. C. Harmer, M. C. of Pennsylvania, in the House of Representatives, who had pledged himself to do all he could for its passage.

It was resolved that the Secretary convey to Mr. Harmer the thanks of this committee, for his willingness to represent the interests of our Association in Congress, and that all photographers, and especially the members of the Association, be urgently requested to address the Congressmen representing their several districts, and ask them to do all in their power for the passage of the bill and the granting of the petition.

Mr. Adams offered the following:

WHEREAS, Sundry protests having been made to the Local Secretary, President, and Permanent Secretary, against the time chosen by this committee for the next Convention, as being too early in the season, it is

*Resolved*, That the motion fixing May 13th be reconsidered. Carried.

Mr. Adams then moved that the time be changed to Tuesday, July 15th, 1873. Carried.

A letter was read from Local Secretary Baker, reporting the arrangements he had so far made for the Convention, and on motion of Mr. Rhoads, the Secretary was instructed to inform Mr. Baker that this committee so far approved of his actions.

Mr. Moore offered the following:

*Resolved*, That this committee requests all photographers in and around Buffalo to render Mr. Baker all the aid in their power to make the next Convention a success. Carried.

Mr. Wilson proposed that in addition to the publication of the constitution, revised list of members, &c., that the regulations concerning life membership and the new price list be printed, the whole to be called the Manual of the National Photographic Association, to be supplied to members only. The motion was carried.

Mr. Adams moved that a circular of instructions how to use the Kent Handscreen, together with a license, be issued to the members of the Association free. Carried.

On motion of Mr. Rhoads, the President and Secretary were made a committee to

regulate the proceedings of the business and scientific meetings of the Association at the next Convention.

Mr. Bogardus offered the following:

WHEREAS, The next Annual Exhibition will probably be made free to the public, therefore it is

*Resolved*, That an entrance fee of $10 be charged all dealers, manufacturers' agents, and others who exhibit their goods or manufactures at the said exhibition. And that the Local Secretary do not permit the exhibition of such articles until the said fee be paid. Carried.

Mr. Wilson presented the "National Price List" for photographs, which was discussed, adopted, and ordered to printed in the manual for distribution to the members of the Association.

The opinions of Messrs. Howson and Bell on the "Shaw" patent were read and discussed, and it was unanimously

*Resolved*, That the opinions of Messrs. Howson and Bell on the Shaw patent be printed, and the Secretary authorized to supply a copy to all members of the Association who make application to him for the same; the resolutions of this committee on the subject to preface the same.

After a long, interesting, and harmonious session, the committee adjourned.

EDWARD L. WILSON,
Secretary.

## PHOTOGRAPHIC MINCEMEAT.

BY I. B. WEBSTER.

TENTHLY, *On Collodion.*—As late as 1852, and from that to 1855, this compound was very little used in the production of pictures, and, in consequence, those who attempted to use it photographically must needs make their own soluble cotton. There were many who also compounded the iodides and bromides, used as excitants. I have formulas for the production of all these, and many more articles, now so common (but then so scarce), that the photographers of those days were almost always compelled to prepare for themselves, among which was "nitrate of silver." The making of soluble cotton (then called gun-cotton, which it is not, but now pyroxline), was attended with much difficulty and uncertainty, and became a great stumbling-block to the progress of the art. For three long years it was a sore trial and vexatious job, to keep up a supply of good soluble cotton. In many instances it was not soluble, in others only comparatively so, and even when it was perfectly soluble, the film would at times be so tough that it would dry in ridges to such an extent as to be utterly worthless for the purpose for which it was made, and then on the other hand some samples of it would be so rotten, that the first drop of water from the tap would go through it, making it impossible to work it. The cotton was at the bottom of this trouble in nine cases out of ten. It was not in the acids long enough in the first case, and *vice versâ* in the second. It was not until a commercial view was taken of it by Anthony and a few other enterprising men, that the difficulty was overcome, and the *making* of collodion rendered easy. It is not, however, *making* collodion as practiced these days, it is simply compounding a few ingredients that are furnished by dealers in a pure form for the mixture. It is nevertheless of great benefit to the art to have ingredients to our hand, for I can assure my inexperienced brothers in photography that were they obliged to travel that rough road over which the pioneers travelled, I doubt very much their long continuance in the business.

The present workers in photography have nothing to do now after securing a supply of Atwood's alcohol, Powers & Weightman's ether, iodide of cadmium, iodide of ammonium, and bromide of cadmium, and Anthony's pyroxyline, but to compound them after the formula known to them, whether learned from books or worked out by themselves. We often see it hinted that formulas are of no avail in mixing chemicals for our use. This is simply ridiculous. There is not an operator in the world that does not use a formula. To be sure some of them do a great deal of guessing, and in some instances you will see where "brains" are added. From what animal the brains are to be taken never has appeared, and in consequence we are left to infer, as we are by

many others, who in an article will say that a certain ingredient will produce a certain effect, under certain circumstances, but they fail to cite the circumstances or to inform us how to use the ingredients. Thus it is with the use of brains. Every person that mixes (or compounds) collodion does so by a *set rule*, and then if it does not work well he is qualified to doctor it. If it is made by guess he is completely at fault as to a remedy for any evil existing therein. This fact being established, it behooves us to learn the most simple formulas as well as the most expeditious. There are times when we cannot spare three or four hours in the mixing, and then wait two weeks for it to *ripen* before we can use it. That is folly for the practical man, whose time and means are limited. Since commencing this paper I have tested my "old reliable" collodion formula with the following results: Mixed it in twenty minutes on Thursday afternoon, filtered a portion of it the next (Friday) morning, and at 10 o'clock made a No. 1 negative with it, and have been using it constantly since. I will here close this paper by giving the formula:

| | |
|---|---|
| Atwood's Alcohol, . . | 8 ounces. |
| Ether, . . . . . | 8 " |

Pour both liquids in a 20-ounce bottle, into which add 40 grains iodide of cadmium, 40 grains iodide of ammonium, 40 grains bromide of cadmium; shake until all is dissolved, and then add 80 grains Anthony's pyroxyline (gun-cotton), and shake as before. When all is dissolved let it rest over night, and filter, when it is ready for use. This is as simple as "falling off a log."

## BRANES.

BY J. I. M. NASTICKS.

Mistur Editur: I promised to rite you a art-tickle for Mose's Akes. But ez I live so fur north, the wether hez bin two cold ov late to rite. What with sawin wood, and makin fires, and swepin sno oft the skilite, I hevn't hed time. You wanted me to rite an art-tickle on *Branes*. I konsider the man that invented "branes" done a big thing. If it hedn't bin fur branes we kudn't hev hed so menny boox on fotografy. Nearly every art-tickle on fotografy of late hez hed "branes" in it. Nearly every fotografer yuses branes in hiz mannippelations. Some men don't yuse "branes" that way, bekoz thay hain't got more than thare share, and want to ekonomize. Thare heds is level. I belong to that klass of individyuals myself. I am opposed to yusing branes that way unles you hev a surplus to fall back on. I new a man wuntst who red a art-tickle on fotografy, and it red to put branes in the negativ bath. And he went strate way and bot a kaff's hed, and skooped it out, and poot the "branes" in his bath. And it didn't wurk wuth a kuss. And he kum to the konklusin that branes wuz a humbug. My opinyun of branes iz that it is a gud thing in its plase. But the plase fur branes iz not in the negativ bath. I wunst new a Dutch girl who sed hur branes was in hur stummick. A man's branes might az well be in hiz stummick ez to be layin round luse. The best plase I no ov fur branes iz the hed. Branes regilate the mind, and if a fotografer will *mind* what he is about, hiz wurk will shough thet he hez branes, and thet he hez yused the aforesaid.

## THINGS USEFUL.

We have much pleasant and profitable correspondence with some of our subscribers, and as our pages witness, we filter out all the items which may be useful to the general reader. Below we give some extracts from recent letters from Mr. J. H. Hunter, Jonesville, Michigan, a gentleman who "hideth his light under a bushel" more than the good of our art justifies him in doing. We wish our pages were double in number, that we might print *everything* we get—if they could contain them all.

"I have been called a fool, because I insinuated that mercury was a very poor intensifier, that it had a tendency to make negatives harsh, and because I remonstrated that it was poor economy to use hypo the second time to fix prints in; and this same party I asked if he subscribed to the journals. He said 'Yes, Anthony *sent* the *Bulletin* to him, but Anthony could not teach

him anything.' I very mildly suggested that it was possibly so. So I asked him if he ever read the *Photographer*, or the *World*, or the *Mosaics?* He said 'No, he did not believe spending his money for books; he bought a copy of *Mosaics* once, and in it some one advised the putting of white sugar in the developer; that satisfied him; he did not want to read more.' Well, after some more talk he came to business, and his business was, to *obtain instruction* and get my formulæ. He offered me the large sum of ten dollars and his services for an indefinite time. I told him I did not want his services or his money, but that he was welcome to my formulæ. So I commenced with developer: 10 oz. iron, 10 oz. white sugar. Said he, 'Stop! what did you say, 10 oz. white sugar?' I told him I did. Said he, 'You use sugar in your developer?' I intimated as much. Well, he put up his pencil and paper, turned to me and said, 'Well, I did not think you were such a cussed fool;' put on his hat and left; that sugar business was a sore point with him. Now that man is one out of a hundred just like him, no more fitted for a photographer than a jackass would be, and this State is filled with just such as he. They don't know anything, they will not be taught, and they think buying photographic publications is throwing money away. I could write you pages of just such incidents as this. Such men are the kind who make, as they express it, anything on a 5 x 7 plate for 50 cents."

"I tried the experiment of putting a strip of plate across my No. 2 Ross, as per method of Mr. Rhoads, and found that it made no perceptible difference in depth, only lengthened the time of exposure. The fact is, the Ross lenses have about all the depth that a lens can have, and work quick enough for gallery use. They are hard to beat."

"*Mosaics* is very good this year. The articles have less of the *shop* and more of a good feeling one towards the other. I can well remember that to be invited into a brother photographer's dark-room, and see his manner of working, was not to be accomplished without the almighty dollar. To obtain a formula for collodion, toning bath, or developer from really a first-class operator was wellnigh impossible, and if obtained, the formulæ were in a mutilated condition. How different it is now. I was taught many years ago 'How pleasant it is for brethren to dwell in unity.' I have seen that practically illustrated; but to see the universal good feeling that exists now among the craft, is truly wonderful. Formulæ, with nothing kept back, to be had for the asking. If you are in a fog, and cannot get out, your neighboring photographer will assist you out. If there is anything you are not thoroughly posted on, you can get posted, just for the asking."

"I have read Anderson's book a second time (that is, the practical part of it), and there is much good in it. The chapter, or rather section, devoted to 'art as applied to photography,' is most excellent, as well as his 'details of manipulation.' It is entirely different from any other publication, and in this is its chief value; it has opened the way for others of the same sort; and the next book, if written by a good practical man, will be as much better, as Anderson's is better than any written before his."

"You say send such little dodges as I know to be good. Now I do not know that I have any. My whole method of manipulation is much the same as I have read in the *Philadelphia Photographer* dozens of times. I can call to mind but a couple that I have not seen. They are, when I am to take a baby's picture (a negative), I coat the plate and let it remain in the negative bath at least double the time I am in the habit of doing; I find by so doing the plate is more sensitive, works in half the time. The other is, in place of ink to touch out white spots on the photograph, use a moderately hard Faber lead-pencil; I use a 'Siberian H. B.' It is much better than ink; does not rub off. This may be old, but never having seen it, I send it to you."

"I see in the article by I. B. Webster, he in common with many others, advises the placing of glass plates in concentrated lye, and then in sulphuric acid—washing between the lye and acid of course. Now, I have tried this method and found it good, but for all that I do not use it; I simply use commercial nitric acid, diluted one-half

with water. I know this is *old*, but it is *good*, and not half the trouble of Webster's method. I know that it will remove varnished films and impurities on the glass. (By the way, rusty glass is something I never buy, and if I did, I would not take the trouble to clean it.) I use first quality French negative glass, and never have any trouble getting it clean, as well as varnished glass, simply using nitric acid. In albumenizing, my method is about the same as his. The varnished films will come off in from twenty-four to forty-eight hours."

(To be continued.)

## Back Volumes of the Photographic World.

We desire to call attention to the advertisement wherein we offer the back volumes of the *Photographic World*, for $3 a volume We can freely recommend these volumes to our readers as being very useful and very valuable. Besides comprising particularly the record of foreign photography during the years 1871 and 1872, they contain many very excellent articles written especially for them, and a series of papers on "Position and Composition," and another on "Landscape Lessons," both of which, treating as they do, upon the æsthetics of our art, come particularly useful now when art principles are being better understood, and therefore studied the more. Besides all this, the volumes of the *World* contain twenty-five elegant photographic studies, which are alone well worth the price asked for the whole.

We have a few sets left, and offer them low, as we want the room for other use. Secure them before they are all gone.

## Analysis of the Manufactures of Messrs. Rohaut and Hutinet.

In the proceedings of the Photographic Society of France we notice that a series of experiments has been undertaken at the instance of the above firm, with a view to test the chemical purity of their manufactures. We notice also that they stood the ordeal perfectly, and it was made clear that neither in the composition of their cardboards nor in the pastes and gums employed in their manufacture, or sold for mounting purposes, would the photographer find the cause of his misery and failure.

An elaborate series of experiments with silver prints which had been damaged in various ways, clearly proved that the sole cause of discoloration and of spots is to be found in the imperfect cleansing of the paper from the traces of hyposulphite of soda brought from the fixing bath.

In the new number of the Society's official *Bulletin*, a communication from MM. Rohaut and Hutinet to the Society has been printed, and, with the discussion thereon, deserves, we think, the careful attention of our readers. If photographers were more careful in washing we should hear infinitely less about fading. The following is a translation of all the essential parts of this paper:

We have the honor to submit to the Photographic Society of France, the conclusions arrived at as a result of some new researches into the causes of the spots which attack some photographic proofs. Prints pasted on cards which have been strongly charged with particles of bronze powder become spotted with marks of a greenish tone or gray green, and sometimes brown, but only after a long subjection to a moist atmosphere; and as samples were exhibited, illustrative of this fact, which had been placed for several days in a cellar, several other samples were shown which had been mounted upon paper charged to the same extent with the metallic powder, but these having remained in a dry place, showed no alteration whatever, although they had been mounted for fully six months. This leads to the conclusion that moisture alone is the cause of the development of the stains, for without it the oxidation of the bronze could not take place. But spots generally observed are, however, whitish in tint, and seldom or never assume either of the two colors above mentioned.

Another sample was a print sent to the firm of M. Schweisfurth, a gentleman who believed in the baneful influence of bronze powder existing upon the surface of the cards. In order to avoid any contact of the silver print with this dangerous metallized surface, M. Schweisfurth isolated the

former from the latter by placing a leaf of paper between the photograph and the card. In spite of this, spots appeared in the same persistent manner, though not at all of the kind produced by the action of damp upon the cards as above indicated. They were the yellowish-white spots of hyposulphite of soda. Thus, it is clearly indicated that the discolorations are not due in this sense in any degree to the nature of the mount.

In fact, this experiment leads us to accept in its entirety the explanation of M. Franck, who attributes the spots to a fermentation of the mounting paste, produced by piling the prints upon the top of each other before they are individually dry. The sample referred to, has simply been subjected to a double gumming, and hence has produced intensely the same effects which usually follow such treatment when the picture is only underlaid by a single layer of paste.

Two further samples were shown in support of this theory. These showed, instead of spots, elongated streaks—brush-marks, in fact. The markings indicated clearly the greater or less thickness of the layer of paste, according as it had been deposited or dragged away by the action of the hairs of the brush. Manifestly the paste here has a distinct evil effect upon the picture, due to damp or insufficient drying.

Still this is but a means of evil, not the root of it, and, as MM. Rohaut and Hutinet justly remarked, the experiments of M. Baudrimont are confirmed rather than otherwise, by this singular action of the gum. It really amounts to no more than this: Prolonged exposure to damp causes fermentation in the mounting agent, spread unequally, as above stated, by the action of the brush. In proportion to the thickness of this layer is the strength of its action, and the effect of that action is to quicken the latent powers of the hyposulphite of soda allowed to remain in the pictures.

This theory does not at all invalidate the remarks of M. Davanne, that hyposulphite, from its solubility, must be diffused equally through the tissues of the paper, and could not therefore act unequally; for it may be quite true that the salt in question should be universally diffused, and yet equally true that its pernicious action can only take place where there is a localized medium for setting it afoot.

M. Davanne observed, that after the above exhaustive observations upon the influence of the mounting glue, it only remained to point out that it was desirable for every photographer to be the maker of his own paste. Those sold commercially, almost invariably contained acids, whose presence were due either to the fermentation of the farinas or to alum, or to the intentional addition of chloride of sodium. He further made the remark, that one result of the joint researches undertaken by M. A. Girard and himself, was to establish the fact that the image of the photographic print is formed neither of pure silver nor of pure gold, but of a sort of combination of the two metals and the organic matter. It followed, therefore, that whatever cause produced an attack upon this organic matter would act as a powerful destructive agent upon the picture.

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A New and a Good Project.—Mr. Lyman G. Bigelow, Grand Rapids, Michigan, a gentleman who is already well known as an instructor by means of his excellent Album, &c., has declared his intention to make a tour of instruction through the country, and he offers to make engagements with any one who desires his services. Instructions under the following heads will be given: Lighting and posing, practically and theoretically; chemical manipulations in every department practically applied under your own light, showing how necessary harmony is between the collodion and bath, and the developer and exposure; giving a book of printed formulæ in all the departments the same as you will see practically applied; retouching negatives; finishing in India ink; finishing in water colors; the arrangements of the glass studio as regards curtains and reflectors; how to make ivorytypes, &c., &c. Charges, $50 per week. We consider this a capital idea, and wish Mr. Bigelow great success in this truly "missionary work" among photographers. As a gentleman and an artist he is first-class, and so great is our confidence in him that we have made him our authorized agent for obtaining subscriptions, &c., &c. We commend him to all who would improve their work as one eminently adapted to this new project. He is not a process peddler, but a teacher. That much and no less.


*Queries.*

A COMMUNICATION was received from Mr. John Terras, Markinch, Fifeshire, Scotland, asking that its contents be laid before the Hypo Club; but as the *World* has ended the Club, we give it to Sphynx.

Mr. Terras, it appears, has a great liking for the double salt of ammonio-sulphate of iron, but says, "I am compelled to give it up on account of its giving a sandy deposit all over the negative; Mawson's, Thomas's, and Vogel's collodion give the same result." As no mention is made of the strength of the solution, it was the general impression that the developing solution was used too strong. This is the first complaint of that nature that has been received, and the members regret that no particulars were given. Ammonio-sulphate of iron is now used quite largely, both in Europe and America, by many of the best photographers, who claim that it produces a remarkably fine quality of negative, full of detail, and yet free from extravagant high-lights. One of the members stated that he had examined a negative developed by this double salt under a microscope, and upon comparing it with other negatives that had been developed with different solutions, it was found that the precipitation of silver was deposited in finer particles than in either of the other negatives. In proof of this Mr. Albert Moore, of Philadelphia, solar enlarger, has advised in his pamphlet the use of this salt, on account of the uniform softness of the negative.

It was suggested that Mr. Terras should prepare his developer in the following manner, as suggested in *Photographic Mosaics*, page 16, 1871, by John C. Browne: "Make a saturated solution of ammonio-sulphate of iron in water, filter, and to every ounce of solution add one drachm of glacial acetic acid. This is a stock-bottle, and by making six or eight ounces, it will be sufficient for a large number of plates, and has the advantage of keeping any length of time in good condition. Before developing a plate it is necessary to reduce the strength of the saturated solution. Take a small wide-mouthed bottle, and to every five drachms of water add two drachms of the stock solution. The developer is now ready for use. Time may be saved by marking with a file or diamond upon the bottle the exact amount of water desired, and another mark for the iron solution. The proportion of five to two is the formula that I generally prefer, but it can readily be altered to suit the subject by increasing or decreasing the amount of iron. When the bath is new no difficulty will be experienced in flowing the developer evenly over the plate, but by constant use, alcohol and ether being absorbed into it, the developer may require the addition of a little alcohol to make the solution run perfectly even. After standing for some hours a crystallization will take place at the bottom of the stock-bottle, but that is to be expected and will do no harm to the solution."

The use of pure water was urged as a most important part of this development, together with *plenty of time* in exposing the plate.

A collodion salted as described will give good results:

| | |
|---|---|
| Alcohol, . . . | 5 ounces. |
| Ether, . . . . | 3 ounces. |
| Cotton, "Parys'," . | 5 grs. to each oz. of mixture. |
| Iodide of Ammonium, . | 5 grains. |
| Bromide of Magnesium, | 2½ grs. to the oz. of mixture. |

—ED. *P. P.*

I WOULD like to tell Sphynx a little experience I had with an old negative bath, and ask it a question.

The bath in question had got albumen in it, from the backs of plates, I suppose, and would fog immensely. I tried many ways of clearing it, with success generally, until I had dipped a dozen or so of plates, then the fog would commence, and I would have to clear it again (I made fresh albumen, white of one egg to 20 ounces of water, and

four or five drops of ammonia). At last I tried Mr. Clemons's way of clearing a bath of albumen, namely, by adding alcohol and then burning, afterwards evaporated the remaining alcohol and filtered; there was some burnt albumen in the filter, but the liquid after passing through the filter was straw color. I added water to reduce to 40 grains, and behold, a beautiful white, flaky precipitate was immediately formed, which fell at once to the bottom. I filtered again, and found my bath intensely acid, although I had neutralized it with liquid ammonia before burning with alcohol. I next tested the alcohol, and found that slightly acid also. The white precipitate on the filter I found to have *very* strong explosive powers, in fact, came near having an accident with it. Now what I would like to know is, what is the substance formed, and just how it may be formed? My supposition is that it is fulminate of silver, and I have since been told by a druggist that it was formed by nitric acid in the alcohol. It readily explodes on the application of heat, but I tried a very small piece by striking it with a hammer, and did not explode it.

I would like to hear the opinion of some of my learned brothers in the art, concerning this substance, so no doubt would others no better versed in chemistry than myself. I have kept a small sample of the precipitate, which I could show any one if desirable.—C. H. P.

In collodion sensitized wholly or in part with potassium, there is seen almost invariably more or less, usually *more*, of white precipitate; now the questions are, what is that precipitate? and how can it be avoided?

I. Pass.

Can you give me a receipt for making a varnish which can be used in connection with Hance's and Newton's anti-bromized collodion? I have tried four kinds, and have lost five or six valuable negatives, which were instantly destroyed on application of the varnish.—H.

*Answer to H.*—There is nothing in the chemical constituents of the collodion in question, which would make the action of the ordinary spirit varnish upon it different than upon the common bromoiodized collodion. If the film when dry presents a spongy surface and absorbs the varnish, such a fact may arise from several causes. It may be that the alcohol used in its manufacture was of a poor quality, containing a large per cent. of water, or it may be old and have been insufficiently corked, which allowed the ether to escape. Sometimes the nitrate bath is in a condition to act on the collodion film so that it will dry spongy. If, however, such is the case, or otherwise, can be determined by trying samples of different collodion. I have some of the collodion, without bromide, made by myself about three and a half years since, and it will make now as fine a negative and give as good a film for varnish as any collodion, new or old. For varnish I use gum shellac and gum benzoin, in the proportion of three ounces of the former and one of the latter, dissolved in one quart of alcohol, adding one drachm of ammonia. This varnish I use, and have for years, and believe it cannot be improved upon by the addition of any essential oil or balsam. There is no doubt in my mind that such additions eventually make the varnish powdery and brittle. I published quite a number of years since my use of gum benzoin in varnish. I think it was in Prof. Seeley's *American Journal*. It had not been used prior to that as I am aware of, and my experience has not changed my estimation of its superior qualities.—H. J. Newton.

Some time ago I wrote you in regard to some spots or stains that were troubling me by appearing in the shadows of my negative, and at last I have found how they got there, but what makes them I cannot tell. The reason they do not appear in the lights of the pictures is, they are so thin; that they do no harm, and are not noticed. While developing one can see them on the surface of the developer, and when it is drained off a part of them adhere to the plate, and the more they are washed the closer they seem to stick. My bath is of good strength, and no scum is on it that I can see; still the particles when floating on the developer while on the plate have the appearance of a sort of scum. Can you, without taxing your time too much, tell me what the trouble

is? My collodion is iodide of ammonium, bromide of potassium, and lead, mixed with some of Anthony's; cotton used, Hance's. Developer: iron and ammonia, water, and acid; and with this trouble comes a companion, in the form of semi-transparent, round spots, about the size of the head of a pin. If I am asking too much of you just now, ventilate it in the *Photographer*, as it is a great source of annoyance to me, and I am in the dark what to do.—JULIUS HALL.

*Answer to Julius Hall.*—Use protosulphate of iron instead of sulphate of iron and ammonia. Filter the developer always. Fault cannot be with the bath; it is between the collodion and developer. Try a new sample of collodion, and if no better the fault is, as I now think, in the developer.

SPHYNX.

*Answer to E. W., in last issue.*—Yes. Pyro solutions should always be made up fresh, a short time before wanted for use.

CHARLIE.

## THE PHOTOGRAPHIC WORLD.

MR. J. LANDY, Cincinnati, Ohio, is preparing a fine collection of pictures for the Vienna Exhibition, and for Buffalo.—Messrs. Wearn & Hix, Columbia, S. C., have recently erected and fitted up a magnificent photographic establishment in their city, where prosperity has attended them for over eighteen years.—Mr. Lon Blackburn, Youngstown, Ohio, says he has received Mr. Anderson's book and Bigelow's Album through Mr. Nason, of B H Howe's stock-house, Columbus, Ohio, and that they are worth $50.—Mr. Leon Van Loo, Cincinnati, Ohio, has been hunting "Buffalo Bill," and his warriors. He found them, and, with the aid of the sheriff, collected a bill for some three thousand photographs, the which bill Bill tried to escape by fleeing to the war path,—another triumph of photography. How brainless for a man to try to run away, leaving three thousand photographs behind him, each one a detective. —A correspondent in Carthage, Ill., desires us to caution our readers against the operations of a firm calling themselves M. A. Hawkes & Co., hailing from No. 19 Tribune Building, Chicago, and who seem to be hawks by nature as well as hawks by name. Their plan seems to be to induce photographers to act as agents for certain engravings, copies of which they supply *on commission*, yet obtain a note for the same, and when the prints are sold, the note to be paid and returned; but instead they negotiate the notes, which are placed in bank and payment demanded or a suit threatened. Our correspondent tells us that there is no such firm at the place stated; so take warning, and avoid doing business with *any* one whom you do not know, and especially avoid giving notes to such parties.—Mr. J. K. Bundy, New Haven, Connecticut, almost a *veteran* in the art, says, "Every book pays if properly studied and the instructions given in them applied to the work. I cannot afford to do without them." —Mr. Frank Thomas, Columbia, Mo., says, "I have Mr. Trask's book, and think it is the best thing I ever saw,—all plain and simple instruction."—Mr. L. Blackburn says, "Many thanks to Mr. Trask for writing his book. I am more than pleased with it."—Mr. John Best, in the *News*, secures intensity and an excellent printing color in his negatives by mixing with his developer a few drops of dilute albumen solution. Try it.—Mr. Woodbury has been giving Marcy Sciopticon Exhibitions in London.—Dr. Ozanum, of Paris, has invented an apparatus for photographing the variations of the pulse.—Mr. Anderson's article in *Mosaics*, 1873, has been the innocent cause of quite an animated "battle of words" among the English and Scotch correspondents of the *British Journal*. An Englishman said the article was "funny," but that a Scotchman couldn't see the joke, whereupon several Scots reply, and say they can see anything but an *English* joke. Still, withal, *Mosaics* is in great demand in England as well as at home.—The *Year-Book of Photography* (English) for 1873 is to hand and is capital.—There seems to be a real desire among contributors to photographic literature at present to communicate matters of real practical value. This is a healthy sign among others which we see for the future good of our art.

## Photographic Association of the District of Columbia.

THE fourth stated meeting of this Association was held at Mr. Bell's gallery, Tuesday evening, February 4th, 1873.

The following gentlemen, having been proposed for membership, were duly elected: Charles Trought, H. R. Hatchaway, Amos J. Rice, M. P. Rice, L. C. Dillon, and Samuel Ott. A resolution was passed inviting apprentices to attend the meetings of the Association. Mr. Alex. Gardner read a paper on "Retouching the Negative," taking the ground that it was generally overdone. He considered the question from both a commercial and æsthetic point of view, and while admitting that retouching the negative often made a more salable picture, he claimed that it as often destroyed its true beauty. Mr. Ward read a paper, entitled "Divers Dodges," which contained valuable and practical dodges.

The advantages and disadvantages of the alkaline bath were then discussed, the advantages claimed being that it was always ready for use, gave less trouble, and worked much quicker than the acid bath.

The question, "Have we not too much light in our dark-rooms?" was raised by the President. He stated that his experience led him to conclude that such was the fact, and that he had noticed that generally the most brilliant negatives were produced on cloudy days.

All the members were requested to contribute specimens of their work made within the month to the next meeting for examination.

Our next meeting will be held at Wheeler & Angerman's gallery, February 25th, 1873.

E. J. PULMAN,
Secretary.

## THE PENNSYLVANIA PHOTOGRAPHIC ASSOCIATION.

THE February meeting of this Association was entirely taken up by a lantern exhibition. We question the propriety of such a proceeding. The lantern is of great use to all societies, but it should not be allowed to monopolize the whole time.

## PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

STATED meeting held Wednesday, February 5th, 1873; the President in the chair.

The minutes of the last meeting were read and approved.

The Secretary reported that a package of prints had been forwarded to the Photographic Society of Paris, together with a letter acknowledging the receipt of the journal published by the said Society.

Mr. L. T. Young, Mr. Philip S. P. Conner, and Mr. L. J. Marcy, were duly elected members of the Society.

On motion of Mr. Tilghman, it was resolved that another lantern exhibition, similar to that given in December last, be given by the Society. On motion, a committee, consisting of Messrs. Wilcocks, Corlies, Moore, and Carbutt, was appointed to make the necessary arrangements.

A copy of the revised constitution of the Chicago Photographic Association, together with a letter of good-will and compliment from the said Association to the Society of Philadelphia, was presented; the Secretary was instructed to acknowledge the receipt of the same.

The President presented a package of some very handsome and new styles of mounting cards, made by Messrs. A. M. Collins, Son & Co., of this city. Among the samples were some of the "Slee" ready prepared cards for mounting without previously pasting the print. The cards were distributed among the members for trial, and a vote of thanks was tendered to the Messrs. Collins for their very handsome gift. The President remarked that he had given the "Slee" cards a trial, and found that they were excellent.

After adjournment, Dr. Seiler and Mr. Dixon exhibited some microscopic enlargements in the sciopticon. The subjects were mostly specimens of the anatomical structure of insects, such as a section of a spider's head and thorax, the sting of a bee, &c., &c. They were enlarged from twenty-eight to seventy-five diameters. In making the negatives, a low power object-glass with full aperture and instantaneous exposure in reflected sunlight had been used.

Mr. Carbutt also exhibited some beautiful

specimens of colored and plain Woodbury slides. A series of crying babies, from negatives by Mr. W. H. Rhoads, attracted much attention. Some views in the Yosemite Valley, from negatives by Mr. Charles Bierstadt, were very much admired and complimented.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

## NEW ENGLAND PHOTOGRAPHIC SOCIETY.

FEBRUARY 6, 1873.

THE regular monthly meeting opened at the studio of Mr. J. W. Black; some seventy members were present.

The yearly election of officers took place, with the following result:

President, Mr. J. W. Black; Vice-President, Mr. E. J. Foss; Secretary, Mr. J. H. Hallenbeck; Treasurer, Mr. E. F. Smith; Executive Committee, Messrs. E. L. Allen, F. C. Low, A. Marshall.

Several names were proposed for membership and were given to the committee to act upon. Mr. J. H. Hallenbeck (upon a resolution by J. W. Black) was elected an *honorary member* of the Society.

Mr. Black called the attention of the members to several 17 by 21 prints, which were made from Edwards's enlarged negatives; the negatives are reproduced from positives on glass made from small negatives. Mr. Everett, the agent for Mr. Edwards, wished from twenty persons the sum of $30 each, before imparting the mode of making the *positive*. Some twelve names were subscribed, and the other eight will probably be given in this week.

Mr. Halihan, from Whipple's gallery, offered to loan the Society some fine views of the fire, for the purpose of having them exhibited by Mr. Black, who will use his stereopticon at the next meeting. All members were invited to bring specimems for the same purpose. In conclusion I will state that the meetings during the present year will be of uncommon interest to all engaged in the art, as I understand Mr. Black (the President) intends to make this Society the leading one of the States, and he generally succeeds in all his attempts in the photographic art. J. H. H.

## Proceedings of the Photographic Section of the American Institute.

THE stated meeting of the Section was held Thursday evening, February 4th, H. J. Newton, Esq., presiding. Mr. O. G. Mason, the Secretary, read the proceedings of the last meeting, which were approved.

Mr. Anthony read some very interesting extracts from the eminent French photographic journals, and among them the communication of Messrs. Rohaut & Hutinet on the cause of spots on albumen prints.

An interesting discussion followed on the subject of precipitating cotton from old collodion, &c., in which Messrs. Chapman, Mason, Gardner, Chisholm, and others took part. Spots on photographic prints also came in for a share of discussion, the common opinion being that hyposulphite of soda was the general cause.

The subject of REMBRANDT PICTURES was now brought up. The President, exhibiting a number, said: These pictures are copies of the old masters, some of them from the French Museum, and some from the National Gallery in Trafalgar Square, London. Most of them are originals of Rembrandt's; some by Rubens, Raphael, Sir Joshua Reynolds, Correggio, Guido Reni, and others.

My object is to give to photographers a correct idea of what a Rembrandt picture is. The generally accepted idea is that it is a picture lit on the side of the face from you. Rembrandt never painted a picture lit in that way, except possibly some figures in a group where it was absolutely necessary; and it is rare to find such a picture by any of the old masters. The point of the nose divides the face, viewed directly in front, into two equal parts. If the face is turned either way, the side presented to view is larger; and, as a rule, that larger side is always lit. There have been deviations from that rule lately, but I think photography introduced them. I do not know that I have ever seen such a picture until within three or four years.

Photographers generally do not seem to understand the philosophy of shadow. They waste a great deal of time in discussing the pitch of the skylight, when the important point is the position of the body. A sitter is artistically lighted when upon a flat surface is obtained a picture in relief, so harmonized as to have no lack of detail either in the shadow or the extreme high-lights. If you depart from that in the high-lights, it must be a minute point. Rembrandt illuminated the face so as to make a strong contrast. His shadows were heavy but very clear, and as full of details as the high-lights.

Mr. Kurtz. These pictures were not called Rembrandt because lit up in that way. I am the father of these Rembrandts, and I simply tried to produce a picture with a great deal of shadow and very little light. It is impossible to photograph a picture as Rembrandt painted them. Every portrait painter will keep his high-lights for the head. The same light that strikes the head will strike the hand, and there is no trick in photography that will cure that. The only way to overcome it is in the printing.

The President. I agree that the painter has an immense advantage over the photographer in being able to place his shadows and high-lights where he pleases. In Rembrandt's group of the woman taken in adultery, there is just one ray of light on the woman, who is on her knees, and all the rest of the group seems to be illuminated from that. That makes a strong effect, but it is not to my taste. Every artist, every photographer has his own ideas and his own tastes. His works are as distinct as his handwriting. You can distinguish them anywhere.

### COPYING BY ARTIFICIAL LIGHT.

Mr. Paxton exhibited a life-size copy of a head, magnified from about an inch. He used a jet of oxyhydrogen gas, burned upon a magnesium pencil, made of compressed oxide of magnesium. The copy was produced in two and a half minutes.

Mr. Anthony stated that he had been invited by Mr. Paxton to see the operation, and he produced in ten minutes two large prints of a beautiful color, and as fine as prints of that size could be expected to be by any process.

Mr. Kurtz moved a vote of thanks to Mr. Paxton for having solved the problem.

Mr. Mason. I think a vote of thanks would be appropriate, for I know that for the last two years Mr. Paxton has been experimenting in this direction, and has spent a good deal of time and money in perfecting the process. The subject of making large prints by artificial light has been discussed for eight or ten years, but no man has before been able to produce satisfactory effects. Mr. Paxton has persevered and stuck to the problem until he has thoroughly solved it; and I think he is entitled to our thanks for having carried it to a successful issue.

The motion was agreed to.

Mr. J. B. Gardner exhibited pictures showing the effect of a new varnish, enabling the photographer to color his pictures with dry colors in the same manner as daguerreotypes are colored.

The President. We will now listen to Mr. Chisholm, who will show us how to effectually cure a bath when it is sick. He takes the silver out of it, pure and metallic.

Mr. Chisholm. This month's *Philadelphia Photographer* says that the last thing that can be done with an old worn-out bath is to convert it into a chloride of silver, and then throw it into the waste. I have here a silver bath, dirty, and full of starch, from which I will precipitate the silver. I have here a piece of zinc, on which I put a little hydrochloric acid to give it a clean surface. I then put the zinc into the bath. It has a kind of galvanic action, and the result will be the same whether the bath is acid, alkali, or neutral. The metallic silver will be precipitated. After it is all precipitated, the nitrate of zinc in the solution is washed out by decantation, &c. I then put a little chemically pure hydrochloric acid with the metallic silver, to redissolve any particles of zinc, and the silver will at once condense into solid granules, which are to be washed thoroughly to free it from the hydrochloric acid, shaking it up so that no trace of the acid shall be left.

The President, Mr. Gardner, and others, warmly commended the process described.

Mr. Shepard exhibited some pictures, and then the Section adjourned.

## BROOKLYN PHOTOGRAPHIC ART ASSOCIATION.

As you say you like to hear from the Photographic Associations, I drop a line to let you and your readers know that the "Brooklyn" is not only alive but kicking, and is bound to kick down all obstacles, and become an honor to the fraternity as well as to the city of its adopted name. This requires energy and perseverance, and although the organization is quite young, I do not hesitate to say it has already within its folds the right elements of success. Our first meeting was held at Knowlton & MacGregor's; second, at C. H. Williamson's; third, at Alva Pearsall's; fourth, at Frank E. Pearsall's; fifth, at Knowlton & MacGregor's, on the 15th inst.

The last was well attended, and quite enthusiastic, four new members being admitted. A very interesting and practical paper,* by Frank E. Pearsall, upon the "Development of the Negative," was read and received with applause, a unanimous vote of thanks being passed for the same.

Vice-President Honney also read an interesting paper upon the benefits derived from an Association; the social feeling it tended to foster; and how by the interchange of ideas and practical experiences, more real valuable knowledge could be obtained than by any other means; closing by exhorting the members to stick together, and to exert themselves individually in inducing others to add their names to the roll.

Drawing, and the art of photography, and the best means of gaining a thorough knowledge of the same, were debated, and most of the members present entered into the discussion.

The "Transparent Positive" will be the subject for discussion at the next meeting, each member being requested to make a transparent positive of the human eye, to be used in the lantern for the purpose of making drawings.

Alva Pearsall,
Cor. Secretary.

* Will appear in our next number.—Ed. *P. P.*

## THE MARYLAND PHOTOGRAPHIC ASSOCIATION.

The stated meeting was held, February 6th, at the stockrooms of Messrs. Dinmore & Wilson. Minutes of last meeting read and adopted. It was resolved that the Constitution be left with the Treasurer, in order that any eligible photographer could sign and become a member, without the necessity of an application, until such time as the Association may see proper to close the Constitution. Also moved and adopted, that the Secretary be instructed to have circulars printed, and forwarded to all the photographers in the State, informing them of the organization of the Association, and inviting them to become members and cooperate with the same. A motion was adopted, that each member be requested to pay in 25 cents monthly, to be used as a sinking-fund, for the purpose of procuring all photographic literature deemed necessary. Upon motion of Mr. Shorey, a Committee on Literature was appointed, with the President as Chairman, the President selecting, as the remainder of the committee, Messrs. John Holyland and Geo. O. Brown. Upon motion of Mr. Bachrach, the action of the Executive Committee, in having the following advertisement in the daily papers, several issues, was sanctioned and adopted:

PHOTOGRAPHY.

The public are informed that with the advance of this art in the last few years, photographs of adults can be made in cloudy as well as in good weather, and *for sitters with light complexions and weak eyes better results can be obtained on cloudy days.*

Maryland Photographers' Association.

A motion was made by Mr. Holyland, that all contribute what books, &c., they can spare, in order to start a library. Adopted. The Secretary then produced some photographs made by the collodio-chloride process, by Mr. James Inglis, of Montreal, Canada, which elicited considerable praise, the lighting and great rotundity of these specimens being very excellent. Considerable controversy ensued as to what kind of a light they were produced under. Association adjourned until March 6th, 1873.

G. O. Brown,
Secretary.

## THE INDIANA PHOTOGRAPHIC ASSOCIATION.

The regular meeting of this Association was held at J. Perry Elliott's gallery, on Wednesday evening, February 5th, and was the largest meeting the Society has ever had since its organization, showing that the interest is not waning, but increasing.

After the President had called the meeting to order, the Committee on Selection of Books for our Photographic Library reported a list which they had selected, among which was *Bigelow's Album of Lighting and Posing*, to which there were some objections made, but, after considerable discussion of the matter, a motion was made to test the question, and the Society voted to retain the book in the list.

On motion of Mr. Adams, the amount of $25 was voted from the treasury to the Library Fund.

The Secretary moved that, in view of the *World* having come to an end, the two bound volumes of the same be added to the list already selected. Agreed to.

Harry Fowler was chosen Librarian, and authorized to take charge of all photographs, &c., belonging to the Association.

On motion, a committee of three was appointed to draft rules to govern the office of Librarian.

An application for membership was received from John Cadwallader, and a ballot resulted in his unanimous election.

Mr. Brent had, or thought he had, been troubled a good deal from too much acid in his bath, and asked for information as to the best way to get rid of the superabundance of that article. Messrs. Adams, Claflin, Judkins, and perhaps others, proceeded to enlighten him, proposing neutralizing and sunning, boiling, and in extreme cases *fusing*, although in practicing the latter "treatment" they had made a great many failures in the way of obtaining metallic silver, and spoiling their evaporating dishes, &c.; but finally the Secretary suggested that it might be well to ascertain certainly whether the bath really contained too much acid, and, when Mr. B. stated that he had introduced only about twenty-five drops into thirty-six ounces of solution, it was agreed that this amount was not sufficient to spoil a bath, and that his trouble probably came from some other source.

Mr. Brent then read a very creditable paper, showing that he was interested in photography in general and in our Association in particular, after which the Society took a recess of a few minutes, immediately following which came the criticisms on the pictures brought in by Mr. Murdock. The lateness of the hour and the character of the pictures, made extended criticism out of the question.

The *Hoosier Heliographist* was then read, but "correspondence" was as "scarce as hens' teeth," and the editorials were not extensive or exhaustive, so the reading occupied but little time.

A prominent member perpetrated a joke on himself by reading as an item of news a paragraph from the *Scientific American*, relating to Mr. Newton's experiments with red glass to shorten the time of exposure for negatives, a full account of which had been published in the *Philadelphia Photographer*. Moral—Better read the journals.

J. Perry Elliott,
Secretary.

## Chicago Photographic Association.

Regular meeting of the Chicago Photographic Association, held at the store of Charles W. Stevens, 158 State Street, Wednesday evening, February 5th, 1873.

Meeting called to order at 8 o'clock, sharp, G. A. Douglass in the chair. Secretary Copelin being absent, H. G. Thompson was appointed Secretary *pro tem.* In the absence of the Secretary with the records, the minutes of the last regular meeting were read from the *Philadelphia Photographer*, and, on motion, approved.

The reading of the reports of the retiring officers being next in order, the President, G. A. Douglass, submitted the following report for the year 1872, of the President of the Chicago Photographic Association. Here the President gave the Association a little private scold, and then said:

The question is simply, Will it *pay* to be a Society, and shall I take sufficient *interest*

in it, to *think* and *talk*, *write* and *read*, *propose* and *debate*, questions you can easily answer, and of *vital importance* to the Society of which you are a member?

We must (and this is not the first time it has been urged) make our meetings of *some interest* and *profit;* it is not enough that we meet from time to time, at appointed places, often long after the stated hour, and then only for the purpose of *wrestling* with some trivial "point of order" or "*question.*"

As an Association, the constitution and by-laws are *necessary* to give it backbone, and to guide it; but *remember*, we are no grand parliamentary body, looked to by Argus-eyed constituents, or guarded by a watchful press, neither are we a body corporate for purposes of trade, where fine and careful legislation in managing its affairs become necessary to guard against possible litigation in the future; *nothing of the kind;* we are simply an association formed for *mutual* improvement in the art photographic, and for the dissemination of knowledge useful to the fraternity. Our constitution and by-laws are framed to *guide*, and to give *tone* to the organization; they are *not*, gentlemen, the Association *itself.*

If we can subdue this tendency to become acute legislators in a very small way, and turn our attention to the actual business of the Society, and with united effort make our meetings schools for the study of our art, then are we performing our mission and living in the spirit of our preamble, useful to ourselves and to others.

What a field we have here in our own city for improvement, and for the benefits of intelligent effort through a Society such as this can be, if it will. Here are some forty-five photographic galleries; these forty-five or more galleries will aggregate at least one hundred and fifty devotees of the art of photography. How many of this number have we associated with us? Less than *one-third* of the actual number in the art in our city are with us in this associated effort for *improvement* and *progress.* Now here is a chance for us to show our *mettle.* Make this Society, with its present membership, "a bright and shining light," you will find that it will flourish; candidates for admission will knock at our doors, and with each addition comes more knowledge. Then we must have this knowledge for the benefit of ourselves and others; in this way are we accomplishing the object of our Society, and doing a *good work.* I have little doubt but that *all* who are not yet with us have ambition, and would gladly join us in building up a Society, whose influence for good will be most marked. were they aided by the example of the members showing their interest in the art, and in the Association.

I am led to suggest as one means of progress the forming of a CLASS IN DRAWING, and under a competent teacher; this idea can be debated and settled at some meeting in the near future. The CHEMISTRY of our art can be looked to in the same manner. We have in our city chemists of skill and reputation, and at a small cost a class in chemistry can be arranged. These topics are of particular value to the students of the art, and many of which are now members with us, and we hope to enrol them all; both these questions should have your *early* attention; *it will pay*, both individually and as a society.

Again, our meetings should be more frequently held, at least every two weeks. I am sure when we get into the harness and fairly at work at the foundation, and commence earnestly to build up the Chicago Photographic Association, you will find that meetings even once a week *will pay* with interest sufficient to give free attendance. I say *this* will be the result when you get down to the work before you; and *this* is just what we propose doing from this time forward; so, gentlemen, when you leave this place of meeting to-night, make up your minds that you have something *to do*, and having satisfied yourself of the *fact*, go to work and *do it;* write a little at least on some subject, and if it is only half a dozen lines bring it in as your share; once started you will find it very easy to keep the "ball rolling." Now if you do not feel like *writing*, hunt up something in the journals or the text-books, and bring it in for *reading* and *discussion.*

I will leave the field of suggestion and appeal, and say a word about our *Association* and its affairs—regarding the "sinews of

war." Not as yet have we had much use for a treasurer or treasury, but I hope in the future both will be useful and necessary; we will *buy* knowledge of some kind, in some way—something to benefit us.

Article 5, section 3, of our revised constitution plainly states the amount each member shall pay annually. I trust those who have not already paid, will place this small sum in the hands of our Treasurer; we will then *count it* and *try* and find *some use for it*

Sixty-two names appear upon our record, and I believe all are in our city but eleven; those absent are Messrs. L. S. Anderson, S. U. Allen, John Dillon, John L. Gihon, John Hamer, F. M. Hayes, M. Kenyon, A. P. Newdick, and O. F. Weaver. As some of the gentlemen named have made a permanent residence abroad, I would suggest that their names be placed on the record as honorary members, agreeably to section 2, article 5. The names I propose are John L. Gihon, John Hamer, and Benjamin Swasey. The others, now absent, most of them I think will from time to time be able to meet with us, and be glad to be retained on the list of active members. I would here ask you to instruct your Secretary to furnish all non-resident members a copy of the revised constitution, and render a bill for dues, with a cordial invitation to add to the interest of our meetings and the success of the Society by contributing papers on such subjects as they may choose.

I trust from the reports to be submitted by your Treasurer and Secretary, you will find everything relating to their office and duties satisfactory; and if anything is needed to push this new effort along, that you will act promptly.

I respectfully urge frequent meetings and harmonious action, making through the medium of our meetings, the art we have chosen for a livelihood a *study;* doing this we are on the highway to success, and from thinly attended meetings we shall reach good, wholesome gatherings, and our membership will swell, not only from the ranks of photographers in our city, but from the fraternity in the surrounding cities and towns; the craft will become interested, adding their names to the roll because they can learn from us and with us. Shall we go on and do this? If such be your determination, and when we have accomplished, even a part of the desired work, then will the Chicago Photographic Association be what it was intended and hoped to be, a bright and shining light in the photographic firmament.

We expect to be called upon to entertain and arrange for the Convention and Exposition of the National Photographic Association, either this following year, 1874, or the next year, 1875; then this Society will have work to do. When called on, Chicago must do its duty, and this Society assume its share of the labors and honors.

Standing upon the threshold of the New Year, it is well that we individually, and as a Society, make some new resolutions,—as individuals, to *progress* in our *art;* to use hands and brain intelligently together, and note the results and benefits which accrue to ourselves and others; to have pride in this Association, and to do all we can for it; resolve to try it *one year;* to *think* for it; to offer your knowledge to it for its benefit and use; and, if needs be, put your hand in your pocket for a dollar to sustain it in its work; *believe* in the Association and attend its meetings; as a Society, resolve to work in harmony for the advancement of the PHOTOGRAPHIC ART; we must *go ahead; progress* is the *spirit* of the age, and vigorous strokes are needed to keep pace with the new light constantly breaking.

Mr. Douglass, the retiring President, then introduced Mr. A. Hesler, the President elect, who, in taking the chair, thanked the Association for honor conferred, and stated that he wished the members to pledge themselves to renewed interest, and to leave persistent debate over "points of order" and unnecessary questions *severely alone*, giving their whole attention and support to the study and advancement of photography. He would promise faithful attendance upon its meetings, and do all in his power as presiding officer to make the business of the meetings profitable and successful, closing his remarks with some valuable hints and suggestions as to the future course of the members and Society.

A vote of thanks to the retiring President, Mr. Douglass, for his able report was then,

on motion, carried unanimously. Mr. Douglass, the Secretary elect, then assumed his chair and the duties of the office.

Mr. Hesler, the retiring Treasurer, made a verbal report of the funds in his hands; his book of accounts of the Society having been mislaid made it impossible for him at this meeting to present his report in form. Funds in hands of Treasurer estimated at forty-one or forty-three dollars, and a balance of ten dollars of the Relief Fund unexpended.

Secretary being absent, no report presented. The Chairman of Executive Committee being absent, no report presented.

On motion, members in arrears for annual dues were requested to pay the amount to the Treasurer.

The following letters were read, ordered on file, and Secretary instructed to acknowledge the same: from Pennsylvania Photographic Association by the hand of its Corresponding Secretary, Edward L. Wilson; Brooklyn Photographic Art Association by the hand of Frank E. Pearsall; Photographic Association of the District of Columbia by the hand of E. J. Pulman.

The President in calling attention to these communications, said it was a glorious sign to see the hand of fellowship extended from sister societies, and hoped that this present year would see the chain extended until every city and town large enough would have its association, working together in harmony in the grand scheme of elevating the art and its devotees to the highest standard.

On motion, J. Hirsch, Professor of Chemistry, and discoverer of improvements in the department of photography, relating to etching on zinc, was elected an honorary member.

The names of L. M. Melander, Z P. McMillen, and D. H. Cross, having been proposed for membership, and referred to usual committee, were reported on, and the gentlemen elected to membership.

Mr. Greene suggested that it be understood that an article from some of the journals be read at each meeting. The suggestion was received with favor, and indorsed in a few remarks by the President.

The Secretary having stated that, by the courtesy of the *Photographic Times*, he was in receipt of a copy of the *New York Tribune* containing a full report of the lectures on "Light" by Professor Tyndall, it was proposed by the President that the Secretary make the same the property of the Society, and read such parts of the lectures as would be of interest and benefit to the members.

The President then appointed Messrs. J. H. Abbott, A. Hall, and J. Smith, to prepare papers to be read at the next regular meeting.

Mr. ——, in this connection, remarked that although he had followed the business of sun painting some twenty-five years, still he felt incompetent to write a paper to offer the Society, but as he he did not wish to shirk from any duty, would do his best.

It was suggested by the President that the members appointed to prepare papers should, as far as practicable, name the subject they would select on the evening appointed, as the members would then be able to give the subjects some previous attention, and be prepared for intelligent debate if necessary. It was further stated by the President that the appointment to prepare a paper would not debar them from selecting articles of interest from the journals which could be offered in lieu of the paper.

The Secretary was then called on to read in full Mr. W. J. Baker's able paper, page 29 in *Mosaics*, 1873, entitled "De Legibus" After the reading of the paper, Mr. Hall stated that being absent from the last meeting he knew nothing of the discussion on this paper but from hearsay, and judged that Mr. Baker at that meeting had no friends. Mr. Hall stated that he had given the subject some thought, and was firmly of the opinion that Mr. Baker was right, and knew exactly what he was talking about; thought "De Legibus" the best article in the *Mosaics*, and that Mr. Baker was very modest in his statements; believed that Mr. Baker offered something new and desirable—something that one should give heed and earnest attention to. As the paper, "De Legibus," had been discussed once before, Mr. Hall questioned whether they knew really what they were discussing. What is the English of "De Legibus?" This question was not promptly met; and Mr. Hall answered his

own question by stating that the English of it was "by the law," or, "according to law." Mr. Hall then read the following paper in support of Mr. Baker and "De Legibus."

MR. PRESIDENT AND GENTLEMEN: I am quite surprised at the criticisms made on the article entitled "De Legibus," written by Mr. W. J. Baker, of Buffalo, N. Y., and printed in the *Mosaics* for 1873. Why, I should think by the remarks of some, that the principle or law of art, brought forward by the gentleman in question to prove that extreme relief in a picture is vulgar and inartistic, was something new and original with Mr. Baker, and that a few arguments of the humble photographer was going to prove the fallacy of such an idea. But, Mr. President and gentlemen, it is a law in chiaroscuro, which has been firmly fixed for ages, that relief can be carried only to a certain extent, without sacrificing the more important and beautiful principle, *breadth;* therefore, extreme relief can only be admired by those uneducated in these principles of art.

What Mr. Baker has said is only a reiteration of what has been said by the best artists for ages.

To prove this, I will read a few extracts from different authors. First, I will read what Elbert Anderson says on this subject, in his work, *The Skylight and Dark-room.* He says "something, though not much," on page 191, as follows:

RELIEF.

"As regards *relief* in a portrait, do not run into extremes. Too much of this is inartistic, in the same way that too gaudy and brilliant color is vulgar. Sir Joshua Reynolds says: 'This favorite quality, which De Piles and all the critics have considered a requisite of the greatest importance, was not one of those objects which much engaged the attention of Titian. Painters of inferior rank have far exceeded him in producing this effect. This was a great object of attention when art was in its infant state, as it is at present with the *vulgar* and *ignorant*, who feel the highest satisfaction in seeing a figure which, as they say, looks as if they could walk around it. But however low I may rate this pleasure of deception, I should not oppose it, did it not oppose itself to a quality of a much higher kind, by counteracting entirely that fulness of manner which is so difficult to express in words, but which is found in perfection in the best works of CORREGGIO and, we may add, of Rembrandt.'"

Mr. Ruskin remarks: "This solidity, or projection, is the sign and the evidence of the vilest and lowest mechanism which art can be insulted by giving name to.

"I would not now have you think, by the foregoing quotations, that you are not to strive for and attain *any* relief in the picture; on the contrary, a certain amount of relief is necessary to produce roundness and body to the work, as a certain amount of contrast is necessary. But do not overdo it. Violent contrasts in light and shade produce harshness; violent contrasts in colors are inartistic and vulgar; and too much appearance of relief produces a *hardness*, as if the picture were cut out of wood or marble. The nearer the sitter is to the glass, the more solid will be the effect; retiring from the glass produces more the appearance of bas-relief than rotundity. The *amount* of *light* has nothing whatever to do with it."

Now we will see how Robinson treats this subject in his *Pictorial Effect in Photography*, page 109.

"It is not the fact of reality that is required, but the truth of imitation that constitutes a veracious picture. Cultivated minds do not require to believe they are deceived, and that they look on actual nature when they behold a pictorial representation of it. An educated observer does not, like that Moor to whom Bruce, the African traveller, gave the picture of a fish, believe that the artist had made a reality, and say: 'If this fish at the last day should rise against you and say, "Thou hast given me a body, but not a living soul," what should you reply?' Art is not the science of deception, but that of giving pleasure, the word pleasure being used in its purest and loftiest sense." Then again, on pages 116, 117, and 118, in explaining the meaning and object of chiaroscuro, Robinson says: "It will be seen that I have omitted relief as one of the objects of chiaroscuro. There is no doubt that a certain amount of relief is of advantage to a pic-

ture, but to strive for too much of this quality would be sacrificing a much greater advantage — breadth — for the sake of an effect which could not, in a picture, be made to compete with the perfect manner in which it is given in a toy—the stereoscope. Relief is not the object of the picture. If it were, the artist would have to first see the place where it was to be hung, that he might see the direction in which the light would fall upon it, and his chief consideration would be that the objects in the picture should be lighted by the window of the room, his chief aim to produce an illusion, perhaps the most vulgar thing in art. Twining, in his *Philosophy of Painting*, says on this subject: 'Although relief may be considered as an additional advantage, and deserves attention as long as other points are not sacrificed to it, the artist would decidedly take a false view of the calling of art who would set it up as a goal, directing towards it all his exertions; and, fortunately, to strive as some have done, for this kind of eminence, generally involves the neglect of other attainments which ought to have stood foremost. We cannot expect to see those powers, which, like projection and relief, may be termed practical, imitated in perfection, with those which, like expression and beauty, are the fruits of the imagination and sentiment; our physical nature is opposed to it. But in the picture, chiaroscuro, or light and shade, has other purposes to fulfil than those which in nature serve to mark the rotundity and projection of form.' "

To show the importance of breadth, I will quote the words of Mr. Robinson again:

"Objects, which in themselves possess no interest, are frequently made to delight the eye, from their being productive of breadth. This cause seems to account for the pleasure we receive from many massive, heavy objects which, without this charm, and considered singly, are positively ugly. Some pictures, though bad in every other respect, but possessed of breadth, attract and arrest the attention of the cultivated eye; while others, admirable in detail and color, but in which the harmonizing principle is wanting, will often be passed over as uninteresting."

Regarding chiaroscuro, Mr. Robinson says: "In photographic portraiture, the chiaroscuro is, to a very considerable extent, under the control of the artist: there is, therefore, not so much excuse for imperfect and faulty lighting as there is in landscape photography. The tendency of the lighting in photographic portraiture has been to daub patches of black and white, or to miserable softness, full, it is true, of delicacy and half-tone, but insipid and without character. Neither of these varieties possess what could be strictly called chiaroscuro, which term implies some notion of the arrangement and management of light and shade. There is something more in light and shade than what is shown in the modelling of a face. The object to be attained in lighting a head, considered as a head only, without reference to the general effect of the picture, is roundness, and a certain degree of relief; not the relief attained by the stereoscope, but that degree of projection which is seen in all good pictures."

To show you that too much reflected light will produce inartistic relief, I ask you to consider what Ruskin says in a lecture delivered before the University of Oxford. "In vulgar chiaroscuro the shades are so full of reflection that they look as if some one had been walking round the object with a candle, and the student, by that help, peering into its crannies."

What I have just noted from different authorities, only proves that artists who make relief their principal aim, are catering to vulgar tastes, and at the same time disregarding the highest and best laws known to art. It also proves that the binocular toy, the stereoscope, which blends two pictures in such a manner as to make the objects appear in relief, is simply a cheat, a fraud, and has no more claim on fine art than a rough shed has on Corinthian architecture.

I have heard some photographers argue that stereoscopic pictures are artistic because they appear so much like nature, and the nearer our productions approach nature the more artistic they are. To such persons, I say, if they knew simply the definition of art, to say nothing of its principles, they would not advance so absurd a theory; for

if this be true, the crying of a child is more artistic than the song of Parepa or Nillson, and there would be more art in the rough block of marble than in the finely wrought column.

I have serious doubts of our right to call photography a fine art. Ruskin acknowledges it to be an invaluable means of recording some facts, and for giving transcripts of the drawings of great masters. He says, "Let me assure you, once for all, that photographers supersede no single quality nor use of fine art, and have so much in common with nature, that they even share her temper of parsimony." He further says of photographs, "They supersede no good art, for the definition of art is human labor, regulated by human design, and this design or evidence of active intellect in choice or arrangement is the essential part of the work." He thus ignores our right to place photography among the fine arts. But let us not trouble ourselves about that, for it is an art nevertheless, and it matters not whether it is a *fine* or a mechanical art.

It is our duty to know the true principles and laws governing the fine arts, and then to produce our pictures by them as near as our means will admit; doing this, we shall be true to our profession, and prove that the miserable caricatures so often turned out, are not the fault of the art, but of those who are pleased to call themselves artists.

Robinson says, "The application of photography to portraiture has reformed and almost revolutionized that art throughout the world." Yet ninety-nine out of every hundred photographic portraits are the most abominable things ever produced by any art, and the originals of them may often truly say, with the old Scotch lady, who saw her own portrait for the first time, "It's a humbling sicht; it's indeed a sair sicht." This is not the fault of the art itself, but of those who, on the strength of being able to dirty a piece of glass with chemicals, are pleased to dub themselves artists. Photography is a noble profession, although it is a mean trade. Photography has hitherto been a refuge for the destitute:

> "A mart where quacks of every kind resort,
> The bankrupt's refuge, and the blockhead's forte."

Mr. President and gentlemen, it has been suggested that we secure a teacher, and form a class for the purpose of improving ourselves in the chemistry of our profession. But, sir, I think it is far more important that we form a class to study the principles of art. Many times an imperfect chemical effect can be covered up by resorting to dodges often practiced by the trade. But a picture void of artistic principles, no matter how finely finished, is irreparable, and worthless trash to the artistically educated.

Further interesting discussion followed, by Messrs. Green, Hesler, and others.

Mr. Hall stated that he did not understand Mr. Baker to condemn the stereoscope and the stereoscopic picture. It was the picture as an artistic work, a principle in art, that he brings up and questions. Mr. Hall said it was well known that the common law is considered a stronger and a *better* law, and has nothing added to it by statutes or enactments. Mr. Baker, he said, told us of truths and laws that had been established 500 years. You listened to my remarks; I do not propose to offer my opinion against the authorities I have read to you.

Adjourned to Wednesday evening, Feb. 19th, and to the store of Charles W. Stevens.

Twenty members present, and quite a number of visitors, not members of the Society; among the latter was the popular stockdealer of Detroit, George R. Angell; Z. P. McMillen, of Galesburg, and J. W. Wykes, of Quincy.

G. A. Douglass,
Secretary.

## THE WESTON BURNISHER.

Our readers will notice the advertisements of this very attractive machine. We had purposed "burnishing" our picture with it this month to show our readers the effect, but the pictures were delayed by bad weather and reached us too late for our purpose. In our next we shall have more to say about the burnisher, and perhaps give you an example of its work. Meanwhile send to Mr. Bass for specimens. We have not yet seen any photographer who was not pleased enough with the burnisher to lease one.

## MATTERS OF THE

The next Annual Convention and Exhibition of the National Photographic Association will be held in Buffalo, N. Y., beginning Tuesday, July 15th, 1873. Mr. W. J. Baker, Local Secretary.

The Permanent Secretary invites papers from *all* who choose to offer them, and requests that they be handed in to him before the opening of the Convention, that place may be made for them in the order of business.

The Boston and Canada photographers, it is expected, will make a fine display of their work at Buffalo. We earnestly hope they will.

The National Photographic Association *price-list* has been completed by the Executive Committee, and is presented to all the members of the Association in the new manual. Of course the rates suggested are greater than those charged by some photographers, and less than those received by others, but as they are only suggestive, of course its adoption is optional with all. Of course nobody will *come down* to them, but we do hope that many will creep up to them. There are two reasons why prices should be kept up if no more, viz.: 1. Every picture you deliver is an advertisement for you for good or for bad. If you get a good price your pictures circulate among people who can afford to pay for their pictures, and they bring you a paying class of trade. 2. If you get good prices you can afford better operators and better materials, and in that way also attract the best of trade. The national price-list has been made up systematically, and it is not excessive. If those who are weak on the subject will insist that it is the scale adopted by their Association, we think they will have but little trouble in getting their patrons to accede to its demands. All it wants is the backbone to enforce it.

Change of Time.—We have received several communications, complaining of the early time (May) fixed by the Executive Committee for the next Convention. We have not given place to them because they would take a great deal of our space, and no good be accomplished. The wish of the writers seemed to be to have a later time fixed, and since that has been done the matter might as well be dropped. Sundry remarks made on "rings," "usurpation," "secession," and so on, made by one or two, must have caused the authors to feel ashamed of themselves after they mailed them; so we spare their feelings by giving them no further attention.

"Opinions" on the Shaw Patent.—As announced elsewhere, the opinions of Messrs. Howson and Bell, on the validity of the Shaw silver-saving patent, may be had by all members of the National Photographic Association, on application to the Permanent Secretary.

The Manual of the National Photographic Association has been sent to all members of the Association, whose names have not been dropped from the roll for non-payment of dues. If any have been overlooked, they will please notify the Permanent Secretary at once.

The Executive Committee would be glad if members in arrears would pay their dues at once to Mr. Albert Moore, Treasurer, No. 828 Wood Street, Philadelphia. This is positively necessary, as the committee needs funds to further the interests of the coming exhibition.

To become a member of the National Photographic Association costs $4; $2 for entrance fee; $2 for one year's dues, in advance; employees, half rates; life membership, $25. Apply to Edward L. Wilson, Permanent Secretary, Seventh and Cherry, Philadelphia.

Life Members.—One hundred are wanted at once to put the Association on a fair business basis. The last additions to the list are Messrs. M. F. Benerman and A. M. Collins, Philadelphia; L. B. Williams, Utica, N. Y., and W. H. Jackson, Washington, D. C.; L. G. Bigelow, Grand Rapids, Mich.; W. D. Gatchell, Cincinnati, Ohio.

You can aid the Association very materially by becoming a life member *now*. The new certificates are beautiful.

The following have been added to the veteran list since our last issue: E. Long, Quincy, Ill., 1842; B. French, Boston, 1844, J. H. Hallenbeck, Boston, Mass., 1845.

## OUR PICTURE.

We have great pleasure in presenting with our current number, a portrait of another representative man in photography, Benjamin French, Esq., of Boston, Massachusetts.

Mr. French entered the service of photography in Boston, in 1844. At that time he was the principal of a business-college, which still has a flourishing existence. The daguerreotype fever seized him, and he purchased a gallery and started an operator in the business. He soon became fascinated with the art, and in 1844 entered into the picture and supply business regularly with Mr. L. H. Hale. In 1848 he found business growing so rapidly in his hands that he left picture-making, and devoted his whole time to supplying others with their materials and requisites. He is now a veteran stockdealer and a wealthy, prosperous merchant, which facts alone speak more for him as a man of strict uprightness and business integrity, than all the praise we could pen. We have ourselves been in pleasant business intercourse with him for nearly a dozen years, and are free to acknowledge our indebtedness to him for much good counsel, continued kindness, and good will. Moreover our esteem for him as a man, is such as to make us proud of his friendship, and proud of his connection with our art. Would that *masses* of such men would choose photography for the exercise of their honesty, tact, skill, thought, energy, and integrity. There are many photographers doing prosperous business now, who are indebted to Mr. French for the start which has made them wealthy and honored men as well as good photographers. And when in 1864 we embarked with our young magazine upon the voyage of photographic life, one of our very first patrons and most enthusiastic helpers was Benjamin French. Again in our late struggle for the rights of our fraternity he was our willing adviser, and when some one was wanted to receive the funds which our enthusiastic friends hoped to collect to return to us our loss, Mr. French, though busy man that he is, generously assented to do the work, and now regrets that there is not more of it to do. This is like him.

In 1856 Mr. French introduced the Jamin & Darlot (now Darlot) lenses into the American market, and in 1859 took the agency of the Voigtlander lenses, for both of which he holds the agency for the United States. This one act of his has done much to improve American photography. In 1867 he visited Europe partly for recreation, but the interest which the Exposition at Paris excited among the leading photographers of Europe renewed his zest, and afforded a favorable opportunity to make examinations of the instruments and photographic materials there exhibited; he also made diligent search for a better lens than the justly celebrated Voigtlander, but without success, that lens still retaining its supremacy among the eminent photographers of Europe.

Mr. French's long connection and great experience in the business, has given him a "prestige" and position enjoyed by but few, while his high sense of honor, his remarkable sagacity and tact, have made him the successful merchant that he is.

Whenever the fraternity has needed pecuniary assistance in anything concerning them, he has been among the most liberal to contribute to their cause. He is a firm friend of the National Photographic Association, has attended nearly all of its conventions, and is a life member.

May he long live to give us the pleasure of his genial friendship and his invaluable aid in the advancement of our art.

The negatives and prints were made by Messrs. Warren & Heald, Boston. These gentlemen have tried their very best to give us an excellent and characteristic likeness of our friend, with great success.

In a letter to us Mr. Heald says: "I use

no secret or wonderful process, but work in the ordinary way with nothing but the best of chemicals, and use the Voigtlander & Son lenses. And I here will state that after having thoroughly tested lenses from the different makers, I must emphatically give my preference to those made by Voigtlander & Son, as possessing every quality necessary for the production of artistic work. The negatives of Mr. French were made with my No. 6 Voigtlander & Son lens. For collodion I consider the 'Vogel iodide' superior to all others, and would advise all to try it."

The paper used was the S. & M. Dresden extra brilliant albumen paper, imported by Mr. G. Gennert, of New York, a brand which we are told is used by many leading photographers, and is having a large sale.

The beautiful card mounts, with the facsimile of Mr. French's signature, were supplied by Messrs. A. M. Collins, Son & Co., Philadelphia, and were made especially for this picture.

## GERMAN CORRESPONDENCE.

*Reinforcing with Tincture of Iodine—Retouching Composition—Denier's New Portraits without Retouching.*

In a previous letter I spoke about intensifying varnished plates with tincture of iodine. I have employed this method since then repeatedly, and it has always proved successful in my hands. Those who have no experience in this process may easily feel disappointed, for sometimes the plates do not appear to get any darker by pouring iodine over them; but, when we print, we notice directly the greater intensity. This method of intensifying is based on the fact that an iodide of silver containing less iodine is formed. There is, besides the iodine compound AgI (which has a yellow color), another iodine compound containing but half the quantity of iodine, the formula of which is $Ag_2I$, and the color is dark brown or dark green. If iodine is poured on the plate subiodide of silver ($Ag_2I$) is formed at first, and this produces the intensification; but if the action of the iodine is continued for too long a time, the dark subiodide is converted into the yellow iodide, and the plate will appear as thin as before; but if the plate is placed in the light, it will darken and prove considerably strengthened.

Our mutual friend Simpson claims the method as being published by him as far back as 1863. The error on my part is self-evident of a matter of fact character, for in my next letter I stated that a Mr. Unger had published a similar method before mine. I believe that I have always proved just to every one, and I would certainly not be unjust to my friend Simpson, but I did not know of his publication of 1863, as I have received the *News* only since 1869.

Lastly a retouching composition has been sold here, which is very advantageous in retouching negatives. Mr. Hauck has published the receipt for it. Twelve grains of the finest damar resin are dissolved in the finest rectified spirits of turpentine, and this solution is rubbed with a cotton pad on the place to be retouched; the spot is now rubbed over with a dry pad, and a few minutes later it may be retouched with lead-pencil. The varnish may also be applied to the back of the negative, and the retouch with lead-pencil applied to the same; this has the advantage that in case it turned out wrong it may readily be removed with a little spirits of turpentine.

If the plate is left for too long a time before it is retouched the varnish becomes too hard, and no longer takes the lead-pencil lines, but a little fresh solution is easily applied.

The court photographer, Denier, in St. Petersburg, has made the interesting attempt to do without retouching altogether, or to employ it to a very limited extent only. He sent a number of portraits which looked very delicate and soft, and resembled somewhat the mezzotints of Meinerth, but that they had not been made in his manner is evident from the fact that in St. Petersburg the sun is rarely, if ever, at the disposal of the operator. The portraits excited a good deal of attention, but the way how they have been made has not become known. It is probable that Denier obtains this effect in the camera by double exposure, by first

focussing sharply, and next moving the lens a little in or out of focus, which gives to the picture a very soft appearance; for this purpose it is necessary, however, that the objective should be constructed with great exactness, as otherwise double outlines would be the result.

The process is still kept secret, but I will give you a hint which may possibly lead to an explanation. Mr. Szekély, in Vienna, published, a few years ago, a process by which he made the so-called brilliant photograph. With a binocular camera he takes two pictures simultaneously. Both pictures are developed, but not intensified, and finished; the plate is then cut, and the two pictures are placed one on top of the other, in juxtaposition, and printed in diffused daylight. The placing of the two negatives one above the other has the same effect as intensifying, and while the one prints very sharp the other gives a rather diffused outline, and the two combined give that softness which is peculiar to the mezzotint. I hope to be able to give in my next further information in regard to Denier's method.

One of the most annoying mishaps which may happen to the photographer is the breaking of plates, and unfortunately this is not so very rare an occurrence. Curved plates, and more frequently splinters of glass which remain in the printing-frame, are the causes. The printing-frames with caoutchouc lining are a very questionable preventive of this evil. If the crack extends through the shadows of the pictures, it does not matter much, particularly with landscapes, but it is worse in the portrait. In the Vienna Photographic Society the question was recently ventilated, how a broken plate might be mended in the best way. The proposition was made, to place the pieces together, to line it with paper, and to varnish it; the varnish will enter into the crack, and give to it a certain transparency. Mr. Luckhardt recommended to paste on the back of the negative letter-paper of even thickness, which overlaps at the edges; the paper on drying contracts, and presses the pieces of the glass so closely together that the split is no longer perceptible.

The question, which was first ventilated in America, what effect is produced by lighting before and after exposure, is now nearly a year old and still continues to raise the dust. We have not only made many experiments here, but the question has also been thoroughly discussed, and the result is that we are really not any wiser than a year ago, when Mr. Gutzlaff brought out his new glass and his new theory.

I must mention here, in order to avoid a misunderstanding, that I believe from my own experience that an illumination, before or after exposure, is advantageous. But I do not believe that the chemically more effective rays exercise an influence in this after-illumination. Mr. Gutzlaff started the theory that the chemical action of rays can be continued by rays the length of the waves of which is greater, provided the length of the waves is $1\frac{1}{2}$ times longer than that of the former. But we find in his communication facts which do not harmonize with his theory, for if his theory is right, the red rays must exercise an influence also,* and still he states himself that the red glass is perfectly ineffectual. Mr. Prum has also experimented with red glass, in conjunction with Dr. Zenker, and the result is absolutely negative, although Mr. Prum went so far as to expose a negative in the plate-holder, under a red glass for several minutes, to the full brilliant daylight. From the report of the New York committee we learn, however, that Gutzlaff's glasses do not permit the blue rays to pass, but a great quantity of chemically active rays. We learn further that an illumination *before* exposure is as effective as an after illumination, that is to say, the so-called *rayons continuateur*, which are said to have no effect by themselves, act *after all* as well as the so-called effective rays (excitateurs). After reading these facts, I believe I am justified in persisting in doubting the existence of continuously acting rays, and I also feel convinced that an illumination before or after exposure is only effective when actinic rays are employed. If Becquerel has found

* The length of the indigo wave is for instance 43; this taken $1\frac{1}{2}$ times is 63.5, which is the length of the red wave.

"rayons continuateur" and "rayons excitateur," I believe this must be due to a want of precaution in making the experiment, and that all the foreign light was not excluded. Even in the common spectroscope this precaution is but imperfectly carried out, and in the spectral experiments of an older date, still less care was taken in this respect.

The total effect of illumination before or after exposure is hence nothing else than a problem in addition. A certain intensity of light is necessary in order to make, in a given time of exposure, an impression on the iodide of silver film, which is capable of development.

Suppose we designate the intensity necessary to make this impression, by the number 10, then all the parts which have received 9, 8, 7, 6, 5, 4, .3, 2, 1 parts of the intensity will not be darkened by the developer; if we now give to this plate an additional illumination of the intensity which we will call 5, then all the parts 9, 8, 7, 6, 5 will become capable of development, while 4, 3, 2, 1 will still remain unaffected.

The result is, therefore, with a correct calculation of the intensity of the light, by no means a general veiling of the picture, but additional detail. This problem in addition which everybody can make for himself is not new, Mr. Sutton has stated the same before.

The only practical result which has been brought about by this after-exposure, has been, with us, in exposing the under-exposed pictures of children, for a short time, to the lamplight of the dark-room, previous to development.

H. Vogel, Ph.D.

# Editor's Table.

Pictures Received.—We have some fine examples of their work from Messrs. A. W. Cadman, B. Gray, Alfred Freeman, Potter & Bro., A. S. Hood, and A. McCormick, the latter sending us a carte of Ezekiel West, Esq., a Chester County gentleman, 118 years old. We are glad to see constant improvement in the work of all these gentlemen. Messrs. Blessing & Co., Galveston, Texas, send us some cabinet cards which are excellent. Mr. E. Z. Webster, Norwich, Conn., in whose gallery we imbibed our first love for photography, nearly twenty-five years ago, has sent us some fine pictures, which prove him, although a veteran, equal to the progress of the times.

Genre Work.—Mr. W. H. Hodges, at T. S. Johnston's studio, Chicago, has sent us some very creditable *genre* pictures, mainly representing scenes out of doors in winter. They are very well done indeed, and we hope presently to show our readers what these gentlemen can do.

Southern Work.—We have had a pleasant surprise in the shape of a large number of very excellent photographs from Messrs. Smith & Motes, Atlanta, Ga. We congratulate these gentlemen on the excellency of their work, and on their good taste in its finish. We should be glad to have them make a picture for our magazine.

Stereoscopic Views.—We have some nice stereoscopic views from Mr. G. L. Crawford, Georgetown, Cal., and Potter & Bro., Mansfield, Ohio. Mr. H. J. Jacoby, St. Peter, Minn., has sent us a photograph of a cake of ice, wherein the air and action of water have formed a space resembling a huge goblet or cake-basket in form. It is one of the most curious and beautiful things for the stereoscope we have seen for a long time. Mr. H. A. Kimball has sent us a photograph of "The Old School-House Cemetery," where rests the remains of our good old friend, A. F. Clough. Mr. Kimball has also sent us some capital lantern slides of White Mountain scenery, and of views in Quebec, Montreal, &c. He has improved the quality of his slides greatly. From the same negatives he prints stereographs. Mr. C. M. Marsh, Havana, N. Y., has favored us with a large series of views of the beautiful glen near Havana, giving us vivid pictures of the wondrous scenery there. Mr. Marsh is about to issue these in a series, a description of the view to go on the back of each picture. Dealers would do well to look into this.

ITEMS OF NEWS.—The partnership heretofore existing under the firm name of Bogardus & Bendann Brothers, photographers, is dissolved (the Messrs. Bendann retiring). The business will in future be conducted by Mr. Bogardus, who will, as far as possible, give his personal attention to every sitter at the old place, No. 1153 Broadway, New York.—A photographer has had the assurance to call us "*the photographers' assistant.*" We accept and hope he tells the truth.—Mr. Coleman Sellers has been delivering a series of very interesting lectures before the Franklin Institute on Photography and Light.—Messrs. Kilburn Bros. have sent us another supplement to their catalogue, which brings their number up to 1052, and includes their series of views of the great Boston fire.—Mr. Frank Bacon, at Estabrooke's gallery, New York, asks us to caution our readers against the smooth tongue, and the soft speech, and the "ways that are dark," of one Carvalho, who is a photographer from South America, and has taken advantage of him.—Read Mr. C. W. Hearn's advertisement for a situation. He is an excellent printer.

SAILED FOR MEXICO.—On Thursday, February 6th. quite a strong photo. representation accompanied Mr. B. W. Kilburn, of Littleton, N. H., to Pier No. 3, North River, New York, whence he sailed on the "City of Mexico" to Vera Cruz, City of Mexico, and other cities adjacent, for the purpose of finding food for the camera. He has our best wishes for his success and safe return. He has gone to a rich field, but he is equal to the task.

ONE of the most persevering men in our art is Mr. C. R. Savage, Great Salt Lake City, Utah, who not only "runs" a first-class portrait gallery, but does an extensive view business. We have recently received some lantern slides from some of his beautiful negatives.

"MOONLIGHT ON THE COAST," is the name of a new and exquisite chromo after L. Douzette, by Messrs. L. Prang & Co., Boston. It is undoubtedly the most charming work of art ever done by chromo-lithography in America. The sky is full of splendid clouds, the moon behind them lighting their edges and the attendant cloudlets brilliantly, and the rippling waters below catching the reflections in a manner most impressive. In the foreground are two old hulks, which tell tales of woe that contrast strongly with the peaceful moonlight. The chromo improves on acquaintance, and is unsurpassed by any foreign production we ever saw. Dealers will find it in great demand.

AN indefatigable secretary is Mr. G. A. Douglass of the Chicago Photographic Association. He remains at his office (Charles W. Stevens, 158 State Street) every Wednesday evening until 9 o'clock, for the transaction of the business of the Association and to meet its members. We would call attention also, as another proof of his interest in the cause, to his report of the Society's last meeting. We think it is a model, and congratulate him on it.

POSTAL LAW AND POSTAL COURTESY.—We are perfectly willing to answer any queries our readers wish to make, so far as time and reason will allow, but we request correspondents to remember to pay *full* postage on their letters. If they don't we have to do it, and what they pay is lost. Again, when writing on your own business alone, it is a good mark of courtesy to inclose a stamp for reply. Please remember.

WE are again compelled to lay over much valuable matter crowding upon us together with our *Art Studies for All.* In lieu of the last, we refer our readers to the proceedings of the Chicago Photographic Association. Correspondents please bear with us one month more.

A BARGAIN OFFERED.—So much good and useful matter presses us for insertion that we are contemplating the enlargement of our magazine. The one thing that stands in the way is, that we cannot afford it, and we do not want to raise the price. We therefore make this offer to our readers: If you will increase our subscription list by May 1st to 500 more than at present we will increase our magazine eight pages per month. If you will add 1000 to our list we will increase the magazine to forty-eight pages. Every one of you can do something, and thus make it mutually beneficial. It is worth trying for.

IT is possible to make an excellent large negative from a small one by a process the invention of Mr. B. J. Edwards, of England. His travelling agent, Mr. Everett, who is not a process-sharper, offers in his advertisement to *teach* the process to any one desiring his services in their own studios. We have a personal letter from Mr. J. W. Black, of Boston, which speaks highly of the process, and all who have purchased, from whom we have heard, say it is very valuable. We shall allude to the matter again, our space now being too crowded to do so. The results we have seen please us much.

THE

# Philadelphia Photographer.

Vol. X. APRIL, 1873. No. 112.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## National Photographic Institute.

A PETITION has been presented to Congress for the establishment of a National Photographic Institute, with an appropriation of $30,000. The bill was presented by Hon. A. C. Harmer, of Pennsylvania, passed a first and second reading, and was referred to the Committee on Appropriations, where it will lie until the next session of Congress. When the time comes we shall prepare matter for every live photographer in the land to send to his representative in Congress asking for the passage of this bill. It will be of great advantage to our art, but as we intend to argue the matter at length hereafter, we will only add now that meanwhile when you come into contact with your Congressmen *talk up the matter*, and prepare their minds for an avalanche of petitions in support of the project. Sundry newspapers have ridiculed the idea of a photographic institute. If we get it we will show them what good we can do. Some men are always ready to stab photography, but it will no longer endure it meekly.

## Manual of the National Photographic Association.

THIS little work has been prepared with much care and has been sent to every member of the Association by the Secretary. It contains the Constitution; By-laws; List of the Officers each year since organization; Constitution of the Benevolent Fund; Regulations concerning Life Membership; the National Price List; List of Life Members, and a revised list of active and honorary members, together with useful suggestions concerning matters of the Association. No doubt every man who has received it considers it well worth a year's dues. We are sorry to see a number of names omitted from the roll, yet thirty-six pages of the Manual are required to insert the names of all the members. When we annex Canada or Canada annexes us and the rest of the world, we hope to see a hundred pages filled with names, for the National Photographic Association is doing a good work.

## The Edwards Process for Reproducing and Enlarging Negatives.

FROM the time of the first issue of this magazine, our readers have been aware of our antagonism towards valueless processes and the venders of the same, towards secrecy, and towards anything which would impose upon or mislead them, or take from them their money wrongfully, or without giving a full equivalent therefor. We believe our record is clear on these points, for we have always advocated that the free interchange of ideas is the best method of securing the

rapid and continual advancement of our art. Yet, as there are exceptions to all rules, we desire to speak of the results of a process which has been creating considerable stir in this city and in neighboring cities for some time, and for which results we confess to much satisfaction and admiration. We say results, because we do not know by what means they are obtained, for the method is held as a secret by the inventor, and we, of course, do not desire, nor can we receive knowledge concerning it, without the privilege of communicating it to our readers.

We refer to Mr. Edwards's method of multiplying and enlarging negatives. The production of one negative from another, larger or smaller than, or of the same size as the original, is no new idea. We have already published many methods, which may be found by referring, by which it can be done with more or less success. But in many cases the manipulations are difficult and uncertain, and as a general thing the results are unsatisfactory, and the processes themselves very little practiced. The greatest drawback seemed to be the impossibility of avoiding the exaggeration in the enlargement of the faults of the original, the latter being caused mainly by the structure of the film of the glass positive necessary in such processes; it being the usual way to make a glass positive from the original negative, and from it the duplicate negative, large or small.

It seems to have been reserved for Mr. Edwards to discover a method by which these drawbacks could be overcome. This he claims to have done after much experiment and cost, and prefers holding it a secret among those who may choose to purchase it of him, to patenting it. As this is a matter entirely of his own, we have no cause to find fault. If what he produces appeared to us no better than what we have seen done otherwise; if those to whom he has imparted his secret cautioned us against it, and declared it to be a humbug and a fraud; if our esteemed contemporaries in Europe, ever watchful in such things, should warn us against it, our readers should at once be placed on their guard. But the real fact is, during the past month, Mr. R. J. Everett, the American agent for Mr. Edwards, has been taking great pains in our own city to elucidate his method, and we are free to confess unqualifiedly our admiration of the results. Those of our neighbors who have purchased his secret, some twenty or twenty-five, we think, so far as we have come in contact with them, have declared themselves delighted and well repaid, and that they would not be without it; and the work they have produced gives great satisfaction. Mr. Everett brought letters to the same effect from Messrs. Black, Rowell, Marshall, and Allen, in Boston, and our English contemporaries have for some time been very profuse in their praise of Mr. Edwards's pictures. We are happy to be able to join in these testimonials to their excellencies, yet not only to theirs, but to those made by photographers in our own city, of all classes of subjects, and of all sizes.

It will be understood that we can only speak of the results. The process seems to be one by which a glass positive with an absolutely structureless film is produced. This much we know by examination of the positives in considerable number, made by several different parties. From these positives we have seen twelve negatives made from an original negative of the same size, really superior in detail and printing qualities. From a positive from the same negative we have seen a dozen negatives enlarged several diameters, losing no detail or sharpness, or printing quality, or any more retouching than would be necessary (if as much), if the negatives had been made that large from nature. There seems to be no limit to the extent to which this multiplying and enlarging can be carried on. Once secured a good positive, and you may go ahead to your heart's content. You can, by the same means, make not only a large negative from a small one, but a small negative from a large one. How often parties come to you and want a large picture and a carte. You make two or more sittings. The expression in one is much better than in the other, but it has always been impossible to use one negative for both sizes. It can now be done. A weaker negative may be made from a dense one; a denser negative from a weak one; a solar negative if you prefer it, from an ordinary printing negative; pho-

tographers who cannot afford large lenses, may dispense with them and make shift with the Edwards process; for lantern slides the process is admirably adapted, the results being exquisite in detail and transparency. We are assured by those of our friends with whom we have conversed, that it is rapidly and easily worked, and cheaply. No expensive apparatus is needed. Testimonials and other matters of information concerning the process will be found in our advertising pages. We cannot look upon this as an example of "process-selling" in its ordinary sense. We are struck with the extreme fairness of all the parties concerned in it. Mr. Everett came to us and offered us the process in all its details under the usual pledge. We could not withhold any secret from our readers. So we could not receive his kindness. Philadelphia is a bad place to sell any process, but Mr. Everett visited the establishments here, worked the process, and by his very fair way has secured a fee from nearly every first-class photographer here, besides amateurs. He offers in our advertising pages to make arrangements with photographers to communicate the process by letter or correspondence. In this he will have the valuable assistance of Mr. John M. Blake, of New Haven, a gentleman who has contributed many articles to our pages and to *Mosaics;* who has undertaken to communicate unreservedly to purchasers the result of his experience and investigations in connection with the process, to insure its successful working. We think that photographers will, on the whole, be better served by this plan than by personal instruction, as, apart from the saving of time, no important points can be overlooked or forgotten, which might be the case if communicated verbally, and in the short time of a call by an agent. Nothing can be fairer than this, except perhaps that the fee required is by no means exorbitant, we think. However, our readers are intelligent enough, we trust, to decide this latter point for themselves, so we leave it with them, and refer them to the testimonials given in the advertisement, which we have seen and know to be genuine. Moreover, we know the parties would not lend their names to anything not thoroughly good.

## THINGS NEW AND OLD.

BY R. J. CHUTE (ROLAND VANWEIKE).

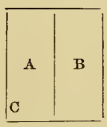
### Camera and Chemicals.

In this journal for December, 1872, I gave some suggestions in reference to dark-room work, showing the importance of careful manipulation; that being one of a series of articles intended to illustrate the necessity of the work under the skylight and that in the dark-room being in harmony, or, in other words, the two working together.

I propose now to consider still further the subject then under discussion.

Mr. Anderson, in his very excellent work, *The Skylight and the Dark-room*, under "Details of Manipulation," in speaking of making two exposures on the same plate, maintains that the last exposure should be longer than the first, in order to have the development uniform. My experience has proved to me that this depends upon certain conditions.

The accompanying diagram represents a plate suitable for two impressions. Now, if A be exposed first, and the developer flowed from the corner C, the end B will require an exposure of from five to ten seconds longer, in order to have them develop alike. This will be found to be the case when no time is allowed to intervene between the exposures. To obviate this, expose B first, and develop as before, and it will be found that not only will the last exposure develop equally well with the same time as the first, but with even less. I have worked both ways, and have found that by making the last exposure on the end of the plate over which the developer flows first, a difference of five seconds may be made, in an ordinary sitting, in favor of the second exposure. By this method of working, a difference of several minutes between the exposures, with equal time, is scarcely perceptible, unless a change be made in the light, which should not be done on the same plate.




When a plate is found to be under-exposed, that is, the development proceeds slowly, an addition of strong developer should be made at once, in the early stage of the process. In this way negatives are

often secured, with scarcely any deficiency, that with the ordinary developer alone would have been wanting in detail, and almost worthless.

## REQUISITES TO SUCCESS IN PHOTOGRAPHY.*

BY E. J. PULMAN.

In making a survey of the field of photography one is surprised at the different results attained by those even who are admitted to be first class artists. Our leading photographers disagree as to the best formulæ for photographic productions. No two scarcely secure the same result from the same process. Each has his favorite formulæ which he is convinced are the best, because with them he produces better results than with others. Different workers produce different results with the same formulæ, and very nearly the same result with different formulæ. Yet effect follows cause as surely as day follows night. Previous conditions being the same the results cannot vary. If this be true we must, of course, conclude that the conditions are not the same, and must look for the difference in the manipulation of the different operators in the manner in which they work their light and chemicals. There can be but one *best* way, though there may be several *good* ways. He that would secure excellence in his work *must look well to his manner of doing it.* Good light, good chemicals, and good formulæ are good things; but with them *all artists* do not produce good pictures. The successful artist must be a close observer of results, and search into their causes, and note carefully the effects of different manipulations, that he may be able to change at will, to some extent at least, the result to be produced. He must be a studious man, searching into the mysteries of science, especially chemical science, that he may become familiar with the tools he is using, so to speak, and able to modify them at his pleasure. He must be a careful man, exact in making his compounds; a neat man, seeing that everything is kept clean, and free from dust; a man who believes that "eternal vigilance is the price of liberty;" a patient man, not discouraged at failure, nor wearied in well doing, but persevering to the end, resolved to conquer all difficulties. He must not expect to accomplish all in a day, or a week, or a year, remembering that it is "first the blade, then the ear, and then the full corn in the ear." Little by little we add to our knowledge, day by day the structure rises, and we are to decide for ourselves whether we will build a palace or a hovel The more material we bring to the work the higher rises the walls; the more we observe, and think, and study, the more material we bring.

The successful artist must be all we have mentioned and more. He must be filled with a love for his work; for since "Love never fails to master what he finds," he can work wonders here. The question naturally arises, can all be equally successful?

I had, in my childhood days, a primer, giving short biographical sketches of eminent men of the past, and on its title-page was this couplet:

> "A pleasing truth it is to know,
> What man *has* done, *that* man *can* do."

I used to love to read it, and it aided me on more than one occasion to come off conqueror when the difficulty seemed almost insurmountable. Though correct in the abstract, when applied to individual cases it perhaps needs to be taken "cum grano salis." But the teaching is that, with the same effort put forth by us as by others, we shall be able to produce the same results. If we do not put forth the effort we cannot expect the result. To be a good artist is no easy work, and the indolent had better seek some other field in which to display his talents. But to the worker, the close observer, the studious, careful man, photography offers a welcome and promise of abundant reward. Whatever is worth the having in this world costs either effort or money, and the acquirement of the art of photography is no exception to the general rule. By persevering effort we gain the prize, but not till we have run the race. We must endure the toil if we would enjoy the pleasure. Not discouraged by failure, nor expecting

* Read before the Photographic Association of the District of Columbia.

a too early or easy victory, but persevering, "still achieving, still pursuing, we must learn to labor and to wait" for our reward. To him that overcometh is the promise. In our own hands is placed our future. Step by step the patient traveller at length reaches the mountain height, and step by step we must advance in our loved art, photography. In the words of Holland,

"Heaven is not reached at a single bound,
But we *build* the ladder by which we rise
From the lowly earth to the vaulted skies,
And we mount to its summit *round by round.*"

## RELIEF OR NO RELIEF—THE QUESTION IS.

In an article of mine which appeared in the *Philadelphia Photographer* not long ago, I incidentally referred to the matter of roundness or relief in a photographic portrait, and expressed my admiration of that quality by saying, that if it lay in my power I would make all my portraits with stereoscopic effect. I have not in the least changed my mind on the subject, though since that time I have, with surprise, read a very learned article in one of your photographic publications,* from one who ranks high in the profession, severely criticizing such views.

Speaking of the stereoscope, he says, "Nothing can be hoped for or from it, for it starts and ends with a violation of the Alpha and Omega of all laws, truth, and in place thereof gives a lie, a deception, to which every pair of eyes must submit that ventures to peer into the binocular."

Again he says, "The educated eye cannot be cheated into thinking it sees true relief when it is only looking at a picture. It knows all the while that it perceives nothing but a flat surface, and that exaggeration of light and shade which deceives the uncultivated, and is called by them 'roundness,' 'boldness,' 'relief,' repels the cultivated taste as an effort outside the limits of art as opposed to its economy, as harsh and in bad drawing. If you are tempted to think you can walk round some object in a picture, if the object seems to you to start out from its surroundings, be sure of two things, first, that you have not acquired the power of correct vision; second, that you are looking at a meanly executed work. There are no exceptions to these deductions."

I said I read these things with surprise, and the more I consider them the greater my astonishment.

Of course the educated eye cannot be cheated into the belief that the relief which it seems to see in a picture is real. It understands that it is only a "deception," but, pray, what is a picture but a deception? It is not a reality, but simply a resemblance —a fac simile—and yet, the greater the "deception" the more satisfactory the picture. That is to say, we sit a person out a distance in front of the background or flat surface when we wish to make a photographic portrait of him, and if we succeed in making a fac simile of the scene photographed, he must still appear to be in front of the background in the picture.

The celebrated writer quoted from, however, calls this "vulgar, cheap, and paltry." Possibly it is, but I am satisfied that ninety-nine hundredths of all the persons engaged in photography, as well as those who are not, are eminently pleased when they produce or behold just such an "effect."

He further says that we ought to bring our taste to the point of honestly admiring a picture whose highest lights seem to be about on a level with the sustaining surface, and from this the shadows melt away, retiring quietly as the tones grow deeper, and yet he makes some of the finest Rembrandtish, or shadow-pictures, which stand out in bold relief, and seem indeed to be almost entirely in front of the highest lights and the sustaining surface.

In this I think his practice is far better than his theory.

Now whether or not the stereoscope does really "hold the mirror up to nature" may be a question, though that is not the one under discussion, but I am persuaded that in some important respects it does it approximately; and further, that the people, including photographers, will, in all probability, continue to patronize it and to wel-

* "De Legibus," by W. J. Baker, *Mosaics*, 1873.

come the deception if it be one, and I would regard it equivalent to an immense fortune to be able to make all my photographic portraits with stereoscopic effect, and am frank to acknowledge that I am not "educated" sufficiently to look upon such a thing as being outside the limits of art, except as it is or may be beyond the limits of art possibilities.

"Where doctors disagree who shall decide?" Will photographers speak out?

J. PERRY ELLIOT.

## A Few Suggestions to the Members of the N. P. A.

I WANT to say a few words and make a few suggestions to the brotherhood of the National Photographic Association. At St Louis they elected me Vice-President for Connecticut, and I took it as a compliment, not being present on account of sickness (at home). But I would like to know what a Vice-President is good for any way? Is it his vices or his services the N. P. A. requires? If the Association would give their Vice-President's some duties to perform (officially) through the State, so that we could be useful in stirring up the brethren, or procuring statistics regarding the progress of the art in their State, the number engaged in it, &c., then we might be something more than mere appendages to the Association. Perhaps you will say all this can be done without being officially authorized to do this work; very true, at the same time it would be pleasanter to do it by order from the Executive Committee. I should like to see Connecticut well represented at Buffalo. There are many good artists in the State, not only in portraiture but in landscape photography, and if any Connecticut man reads this, may his soul be fired with a desire to do something toward the advancement of the art. Let him prepare some pictures and go himself to Buffalo.

Another subject presses on me that I wish ventilated prior to, and at, the Convention, that is, the insecure manner in which Uncle Sam compels us to put up our cards or photographs for mailing. We are not allowed to seal, but to tie with strings or rubber strap. My customers complain that their packages are opened, pictures removed, and that they arrive with contents loose and injured. Cannot we adopt some measures that will influence Uncle Samuel and have this nuisance abated? The old plan of leaving one end open was good enough, and the contents could be inspected without seeing the face of the pictures; but these pretty faces going through the post-office with only a string to keep the post-office clerks out is too strong a temptation, and away goes the string. If the subject is pretty, one or more are abstracted, and the address taken in order to follow up and annoy the subject. One gentleman told me he would rather have given a thousand dollars than had his daughter's picture removed (as it was) on its way to New York.

What else have I to say? I want to thank Mr. Anderson for that 25-grain bath he told us about in the February number of the *Philadelphia Photographer*. Our Mr. Paradise says it works tip-top. I want to thank your Journal for all the good things it got off last year, and hope every photographer in the country will take it this year, and do all in his power to sustain the Journal and our good friend Wilson, who through clouds and darkness, lawmakers and law-breakers, process venders and libel senders, has stood our friend.

So mote it be, from Connecticut's Vice.

E. T. WHITNEY.

Where is Gib-em-fits, of St. Louis, on this post-office nuisance? Will he speak at Buffalo?

## "WHAT'S TO HINDER?"

FRUITFUL and beneficial as have been all the meetings of the National Photographic Association, it is candidly believed by those of us who are taking an interest here in Buffalo, that the coming meeting will be the most successful yet held. And "*what's to hinder?*" Anything?

It is the opinion of a *few* who look satirically at everything, and who have not been sufficiently humored and idolized, that the "*shining lights*" of the profession have mo-

nopolized, in the meetings heretofore held, "*all the glory.*" While it is lamentably true that our contributions have not been universal, it is not quite justice to set down the Association as a failure, and begrudge the praise that has been paid those who have given it life and birth.

It is never more than justice to give to those who bear the "infirmities of the weak" their reward, and I am glad for one, and willing, to give them all the "*glory*" if it will recompense them for placing the Association upon a living and sustaining basis, and for supporting it, not for their individual "glory" but for the "glory" of us *all.* There is a poisonous element in our nature, as a fraternity, which affects us, just as it affects any one in any other relations of life. It is that feeling that we sometimes see existing between two men who are desperately in love with the same girl, and if it does not terminate in a duel, it is seldom satisfactorily settled. Is there anything to hinder our coming together with better feelings towards each other? Is it not time we better understood that faithful saying, "*In union there is strength?*" Let us bury our personal feelings and prejudices so deeply that we shall be enabled to greet each other with newness of life. We cannot all be officers of the National Photographic Association or even local secretaries of its conventions, but there is one thing, we *can* all be more honorable and lucrative than all this—we can be *truer* to each other.

Brother Baker has put his shoulder to the wheel, and he is not a man familiar with any such thing as failure. The citizens here are already manifesting an encouraging interest, and the whole prospect is decidedly favorable. There is only one thing wanting, and that is your presence and your work. We hope to see an abundance of both at the opening of the Convention.

Come then, all ye that photographeth; bring your wives, and your sisters, and your daughters. Buy information without money and without price. Come one, come all.

G. C. T.,
Buffalo, N. Y.

## The Proper Method of Development as Applied to Photography.*

BY FRANK E. PEARSALL.

This article will from necessity be somewhat original, for in all the works on photography that one may furnish his study with, there is little or nothing as to the method of carrying on the development, but a great deal about developers; and each author seems to vie one with another as to how many formulæ his book shall contain, and farther, how much information he can give negatively; he takes upon himself to say not to do so and so, because it will spoil the result. He rarely commits his book to a detailed description just how to do the same, and insure a success. At least this has been my experience with photographic literature.

It is not the intention of this article to deal with books or formulæ, but to give a detailed description of what has come to my knowledge, derived from a number of years of practice, concerning the bringing forth of an image from a sensitive plate, after it has been exposed in the camera.

First. The condition under which the following manipulations are to prove satisfactory, are that all the other accessories to procuring a good negative must be in a fair condition to warrant success. For I do not wish to be understood to father any method of development that will entirely compensate for a badly managed bath, collodion, or badly lighted subject; rather that the development, which takes place nearly as the last stage of producing a negative, shall be so managed in itself, that it shall exert a favorable controlling power over the image as it creeps forth under its influence, to an embodiment of whatever was there in a latent state.

To "develop," accepted in the ordinary photographic sense, is to pour a solution of iron, acid, and water over the plate, and the image may come forth good or bad. To me, the development as it should be applied to photography, means that the word is a cabinet of photographic writings, and each letter a volume thereon; in other

* Read before the Brooklyn Photographic Art Association, February 10th, 1873.

words, development is a science, not to be governed by the rule of three or depending on formulæ, but *learned*, yes, learned, I fear, by many failures. A kernel placed in the ground does not shoot forth a stalk, but conditions being favorable development commences, and nature in its mysterious and beautiful way, little by little, step by step, accomplishes its end. So in a negative, the placing on and washing off a developer, does not insure a good result, granted that all other conditions are very favorable.

There are several methods of manipulating which have come under my notice. For reference I will clasify a few of them as follows: First, that of the timid, hesitating, jerking manipulator, whose ambition is to cover the plate. He seldom does, but in any case of a negative that is free from streaks and stains, he is sure it must be a first-class result. Second. Mr. "Swiller," who prides himself on the amount of developer he can hold on the plate without its running off. Third. Mr. "Washer," who never has streaks and stains, but has great confidence, and boldly throws the solution on the plate, when at an angle of 45°, and washes the picture and silver off. Fourth. Mr. "Slinger," who in a knowing and mysterious manner, pours a little developer on one corner of the plate, and with wonderful rapidity rocks from one side to the other, fans the air, moves about up and down, frescoes the ceiling, and if you are unfortunately standing near he will surely *iron* you, and so on.

I do not condemn all of these methods if in their place; I do condemn those manners that treat all negatives alike, which must be disastrous to six out of ten negatives, for in this case what is sauce for the goose is not sauce for the gander. Because if every negative is to be submitted to exactly the same handling, then I am in error, and the development of a latent image is not a science. Holding that it is, I shall endeavor to sustain myself, not so much by what not to do, but just how and what to do.

The developer must harmonize with the general use of the light. That is, the same proportions would not answer for an open skylight, or one where the light is subdued by passing through thin curtains, or a ground-glass, or one of a southern exposure. In each one of these the light is of a different value, therefore the relative proportions of iron, acetic acid, and water must necessarily vary, that harmony may be secured. Iron deposits the silver, acetic acid simply retards. Therefore, it is very essential that these should be in that proportion that accommodates the best use of either of the above-mentioned skylights.

Taking a nitrate bath nearly free from alcohol, and an open light, 1 ounce of sulphate of iron to 24 ounces of water, and sufficient acid to cause it to flow quite freely. One ounce will do it. Let this proportion be the thermometer of the bath. When it refuses to flow, do not add more acid, but change the bath. *As the plate receives the first lighting under the skylight, so it receives the second under the developer.* That is, by the manner of manipulating, it can be made harsh, too intense, streaked and stained, fogged, flat, without detail, too soft, with too much detail; all these, and yet the same can be made just right, in every respect a good negative by the right handling. One cannot consistently be changed without the other, so the bath must be consigned to hotter regions to evaporate. In nine cases out of every ten it will be just at that time when also the excess of iodide needs removing.

Having established a rule not to change the developer, I will proceed to show that the manner of applying and manipulating while on the plate, is productive of remarkably different results. Let a negative be managed in the several following ways:

First, pour on a little developer which barely covers, move the plate in all directions that the solution pass rapidly over it. Result, hard, dirty, dingy effect, high-lights strong and shadows black, thick, and scummy from too much silver for the amount of developer. Next, "swill" the plate with as much as can be held on, holding it quite motionless. The image springs forth and as quickly goes down again. Result, flat, solarized, high-lights print through, dingy, no depth; directly opposite to No. 1.

Again, holding the plate on an incline downwards, pour solution on from highest point in quantity and force, washing the

plate, allowing the developer and silver to pass off. Result, the image appears quite favorable, at first clear as a crystal, but on examination high-lights strong, shadows too transparent, no half or middle tints. Now, lastly, take the developing glass, which should hold just the required amount of solution (an egg cup is a capital vessel for 8 x 10 plate), holding the plate level, and the light so arranged that it falls on the plate, or by a convenient movement passes through from the underside, that the surface reduction and the intensity can be decided on rapidly. Proceed thus, commencing at the left, the cup or bottle just resting on the edge of the plate. With a steady motion to the right, emptying the cup at the same time, causing it to flow to the top of the plate on a line with the cup, gently rolling over the plate, not displacing the silver or gathering it up; leaving it on every part of the same, with an equal amount of developer distributed over the entire surface. No rocking to and fro with fear and suspense. The solution is as evenly mixed with the iodide of silver on the plate as if it had been weighed atom by atom. In an instant it appears—first the faint tracings of the light, which have hardly time to herald the coming of the other parts. Now, judgment quick and determined, for this is the critical moment. Decide instantly. Is it coming out too rapidly from overtime? If so, allow most of the solution to run off quickly. Move the remainder rapidly over the plate. Not time enough? Hold the plate still that the dark parts may have time to develop. If not coming out fast enough, roll the solution gently over the plate once or twice. If too evenly lighted, then imitate "slinger," and move the plate about vigorously. On the contrary, if too strongly lighted, and likely by ordinary development to be harsh, keep the solution perfectly still, and not allow the development to go too far. If free from the above, by watching the surface and by transmitted light, it builds up the proper density, wash under the tap. Result clear, brilliant, harmonizing in every part; highlight sufficiently dense to print clear, with no loss of modulation; detail to connect light and shadow, which are just transparent enough in the deepest ones to give weight to the print. In fact the same negative that came forth under the three previous developments worthless, now stands out bold, rich, and blooming, in all the desirable printing qualities. A proof that the development of the latent image in a negative is a science beyond a doubt.

I might apply the benefits of the different manners of handling a negative while being developed, to certain kinds of faces to produce desirable results. I fancy it unnecessary if I have made myself understood. It will readily appear.

In conclusion, a few remarks not pertinent to the subject, but to all of us. I would state that this article has not been actuated by that flippant vanity that seems to be so much in vogue at present, of a few knowing ones, whose success has been at the expense of some other genius, insinuate that we know nothing. They knowingly punch us in the ribs, and with cocked eye and arms akimbo, drawing themselves to their full height, bellow out water, iron, &c., &c., and some brains. These parties write books to beginners. There is not one exception where a beginner would not be hopelessly befogged by trying to follow them through their labyrinths of formulæ and theoretical ideas. This was my case.

I have been eighteen years gaining the information contained in this article; not from books but by the constant use of the developer.

That some might gain it in a briefer period is my excuse for taking up so much time.

## TO OUR FRIENDS IN CANADA.

Prominent among the reasons for locating the Convention of 1873 on the northern line of this State was, that it is convenient of access from the Dominion.

The Association wishes to stretch the right hand of fellowship to you across no "bloody chasm," but over the flowing water between us.

In the political sense we are not annexationists, neither are we Fenians in disguise, but what of help and strength we can

gather or give, in a cordial union with you, we wish.

As photographers our needs are the same in both countries. The times press us forward; to lag is to loose our hold on the public. We have many things to teach the public, and it, in turn, demands much of us, which we yet perform but ill.

We believe, that in this union of our Association there exist elements of tremendous strength before the people, and also an uplifting, recreating growth, which will urge each member upwards in his individual career.

We intend to help each man to do his best, and to better that. If you are doing your best, come and see what others' best is, and how it compares with your own. There is always something to be learned, even if the thing learned is not creditable to the teacher.

We are trying to break down local strife and jealousies. "Why is it that you photographers always pull apart?" was asked. "Why, the cartmen in the street are not as hard on one another as you are."

Well, there are a good many reasons for this; it would take too long to recite them here. When you see a thing, you can be sure that there are plenty of causes for its existence. No doubt there were plenty of reasons for the belief in witchcraft, that once raged in such fearful burnings, hangings, and other persecutions. So this foolish isolation of photographers has its reasons, but they fail to justify the fact. We are sweeping it out of our Convention halls, and we will sweep it out of the hearts of our fellow-craftsmen in time.

Our Conventions are periods of instruction, of strengthening, of good fellowship. Each member goes home a better photographer and a broader man, thinking more kindly of his neighbors, and feeling that he has been helped for one year to come.

Many other good purposes are within the scope of the National Photographic Association; most likely none of us now realize all the good that will grow out of it. One thing is certain that it is an assured success. No one, or no many, can hinder it. So not out of feebleness, but from the best of will, we raise the cry, "Come over and help us." It makes no difference, if you don't want to be annexed, come in enough force to annex us, and we will be better pleased.

Already many letters from across the border express the kindest sympathy, and intention to be present in Buffalo, on the 15th of July next. The privileges of the Exhibition will be free to all, and goods sent for exhibition are free of government duty both ways.

Any wishing to exhibit who cannot attend will have their frames hung and repacked, and no charge made. See directions for sending hereafter.

All of you are cordially invited to come, and send samples of your work.

W. J. Baker,
Local Secretary N. P. A.

## NOVA SCOTIA CORRESPONDENCE.

Yarmouth, N. S., February 3d, 1873.

Mr. Editor: Feeling confident that your interest in photography is not confined to the dwellers within the limits of the Union, but is bounded only by the extreme points of the compass, I claim the privilege of an old subscriber, and am going to interest you deeply by giving you a brief account of how things photographic are progressing in our very small part of the Dominion. The *Photographer* came to hand last week, and *Anderson's Skylight and Dark-Room*, which I ordered when renewing my subscription.

I deem it necessary to make a kind of an apology for not ordering the work before; my only excuse is that business has been more than usually dull at this season, which has made it rather hard to spare the funds, a misfortune for which I blame a foolish custom among business men of requiring a settlement of all accounts at the end of the year.

I trust that Mr. Anderson will not be spoiled by too much commendation, but I must say his book is the best work on photography I have ever seen.

I am sorry to have to do without the *World* this year, and hope you will soon consider it advisable to resume it.

I have every year made efforts to get to the Convention of the National Photo-

graphic Association, but have always been prevented. I shall make extra efforts for Buffalo in July, as you have in your notice of meeting extended an invitation to us in Canada.

I hope you will be successful in establishing a national price list. Nova Scotia, like the rest of the world, is pretty well peppered with that class of artists who make twenty-five *portraits* for as many cents. It may greatly encourage the Association to know that at a meeting of the photographers of Yarmouth, N. S., two, they unanimously adopted a scale of prices submitted by one of their number, your correspondent, which, while it pays us for our work, allows us a small margin with which to buy something to *read*, and thereby to keep as near up to the times as our abilities will permit. We could not afford to take the initiative in following a suggestion of a correspondent of the *Philadelphia Photographer* in 1872, to do away with ferrotypes entirely, but in lieu thereof concluded to get paid for them, and to give up the foolish practice, now so common, of supplying them *ad lib.* for the cost of the stock.

I am inclined to think, after having read Mr. Trask's ferrotype manual, that he must have learned our prices from some of our shipowners, who occasionally visit the city of fraternal affection. In adopting them he has shown he is not above taking a hint from those who are a few rounds beneath him on the *iron*-ical ladder (excuse the vile pun), and has risen greatly in my estimation in consequence.

Longfellow in "Evangeline" *very faithfully* describes the Acadians. This people forms a large portion of our population. Since raising our prices the sound of their voices is heard no more in the studio, and the call for *fortygraffs for twentee-five cent, stannin up*, has ceased to be a nuisance.

We have one more serious evil to overcome in this community, and that is, a firm impression in the minds of all classes that a photographer's time and stock are worth nothing. As a specimen I may instance one lady who made an appointment to sit, and as she informed me she would be unable to come again, and would want three or four dozen cards, I occupied half an afternoon in making negatives of her in a variety of positions. My reception-room was at the same time full of customers waiting to be served. The *lady* did not order a picture, nor even offer to pay me for my trouble, although she admitted on seeing the proofs that they were all better than any she had ever had, not excepting those taken in the city of St. John at a branch of the establishment of the celebrated William Notman. I made allowance for the fact that her poor old father was only worth $500,000, and refrained from urging what would have been a fair claim. I was, of course, foolish to refuse a dollar urged upon me by a bloated aristocrat of a colored woman when I failed, after sundry attempts, to get a picture of her copper-colored picaninny I would not for (*the 1st volume of*) the *World* (*which I sadly want*), exhaust your patience by too long a communication.

In conclusion, I cannot say with your correspondent in the far West, that on the day when the *Philadelphia Photographer* is due I sit at the window, listen for the whistle of the locomotive, and look with longing eyes for the train by which it is to come, and on receipt of it ravenously devour its contents, thereby losing my supper. But I will say that when I witness the arrival of Her Majesty's royal mail coach (*an express wagon*), drawn by four noble steeds, holding their heads proudly (*between their knees*), and I hear the inspiring strains of the courier's bugle (*a tin fog-horn*), I wait a reasonable time for the mail to be opened, and in the evening when the toils of business are over, I take great pleasure in examining the contents of the *Philadelphia Photographer*, if I am not too sleepy; and from purely selfish motives I wish it prosperity and success in its tenth volume.

DOOH.

## Broadside Notes Gathered by the Wayside.

When I called on you at Philadelphia, on my way to Louisville, I promised to give you an idea of what I saw there. In due course of time I reached the point of destination, with big expectations; but, alas! I found I had been led astray by the wild flights of imagination, like a butterfly in the desert, chasing the phantom "banner photographer of Kentucky." Upon coming to my senses, I called upon our worthy brother Webster, of "mincemeat" notoriety; found him in a fine, well-arranged studio, fitted after his own notion, which was all that could be wished to make one happy. Making myself known as a member of the N. P. A., he made me feel at home, and as welcome as though we had been fast friends for years. His entire gallery was open to me, and his company mine when at leisure. He is a man I would advise all to visit that go within a hundred miles of Louisville. I could say a great deal of our worthy brother, but he is too well known to render it necessary, so I pass on to our friend Washburn, on the same street, near by. Here I also found a man that "is every inch a man." He was very gentlemanly, and showed me over his spacious establishment as well as his style of manipulation, a specimen of which appeared in the October number of the Journal. The crayon and ink work equals, if not in many points surpasses, some of the leading works of our New York and Philadelphia high-toned galleries. The card and cabinet work, I doubt if it can be surpassed in this country. I have got some of his examples, and, if you doubt the above, will send them to you for your judgment. He, also, is an N. P. A. man, and a good one, too.

Next in turn is our friend Frank Wybrunth, and his right-bower, Hughes. Both these gents I shall ever remember, for their attentions to a wanderer many miles from home. They are both of the N. P. A. order.

There are others in the photograph business there, whose signs and importations of New York pictures speak for themselves. Of course there is a tail end in every city; the head and front of the photographic art business I have spoken of.

After examining the various yellow flags liberally displayed about the city, with the monogram "H. O." upon them, and learning their signification, I bid my friends of Louisville adieu and crossed the Ohio, where I found another member of the N. P. A., G. W. Finlay, who has a small but well-arranged gallery. He was glad to see me, and made it pleasant and agreeable for me. He took me under his protection, and I visited him some days, and then, with his good wishes, ticketed myself for Indianapolis, the prettiest city I saw on my trip. Here I found our friends, Judkins, Elliott, and Clark, the three leading lights of that section; all of the N. P. A. notoriety; all good men. There are other galleries there; some that don't confine themselves to their own work for a show. The work done at Indianapolis is good—some first-class—and a credit to the city.

But I must skip over the ground, that I may reach the end of my journey as soon as possible, where I find myself hand-in-hand with our worthy president. Well, he can run a photograph gallery and the N. P. A. too. We all know him, from *stem* to *gudgeon*, so I leave him and clasp the hand of Brother Capper, another N. P. A. man, of Troy, N. Y. I found him flat; yes, down sick, or rather suffering from the effects of a broken artery in his throat. I was just in time to throw myself into the gap; that is, make myself useful, as he was unable to operate. Of course I stayed; I never pass a friend when I can help him. I found myself next morning in his operating-room, doing the best I could, where I remained during the space of one month (December); of course my own gallery had to do without me. I will give you a hurried description of Capper's gallery. On the second story is his reception-room, some 24 by 80 feet, well furnished, beautifully hung with porcelains, plain and colored, ink, crayon and oil work, together with the cameo card and cabinet that he makes a point on, specimens of which I sent you when there. Let us now move up-stairs, supposing we have our check for the operator marked "paid," for that is all that go

up, unless an N. P. A.; what do we see? A very gentlemanly operator, Mr. Leo Daft, whose skill as an artist is well known to the élite of Troy, and whose ability as a photographer was displayed in making the views in the Hoosac Tunnel by the calcium light one and a half miles under a mountain, on the line of railroad from Albany to Boston. Let us look over this third story. Everything in order; clean, well-arranged dark-rooms, plenty of room, and beautifully furnished; two well-arranged skylights, after Anderson's illustration, in his book; a printing-room where is everything necessary to do first-rate work. At the other end of the floor is where Capper keeps his porcelain printer, for the porcelain picture is a specialty with him. This room is furnished with everything necessary for that style of work. If you ever go to Troy, make Capper a call; tell him you are an N. P. A. man, and he will show you up. Capper has illustrated the fact that first-class prices can be obtained for first-class work, and verified the truth that the chaps who make six bontons for fifty cents cannot compel first-class work to move out of town. That class of work has about used up the iron market, and stockdealers realize the advantage in the rise of iron.

Seeing the demand for the cameo picture, I tried it, and am glad to say it met with perfect success; and I would advise all that wish to add a dollar or two to their dozen, to strike in on the cameo, and they will be well pleased and repaid for the fifty cents invested in *Mosaics* for '73, which gives in full Capper's manner of making them.

Having fulfilled my promise, I say adieu; hoping to meet you, with many other friends, at Buffalo next July, when we may all play *Auld Lang Syne* on Germon's flute to the tune of *Baumgardner's* Grove.

JAMES HOWARD.

*Bigelow's Album* seems to sell in Europe almost as well as it does at home. We have just shipped another large invoice to our agents in London. The pictures are, with one or two exceptions, entirely different from those in the former edition.

## PHOTOGRAPHIC MINCEMEAT.

ELEVENTHLY. *Developing.*—Upon this subject there is a theory, which can be found in the writings of many students, much better explained than I am capable of doing, consequently I only take a practical view of it and confine myself to practical details.

The mixture *called developer* is not complete in itself until applied to its work, at which time it becomes a developer, and not until then. Suppose we prepare a plate for the camera, and let it dry, either before or after exposing it, does any one entertain the idea that what is called developer would act as such? If he does, let him try it; and I have no doubt but his mind would be disabused of that idea very soon. Why is this thus? The answer is simply that there is no *free nitrate of silver present.* Now do not ask how "dry plates" can be developed, if this is true; for if you do I will answer by saying that my papers only treat on the *wet process.* Now, that being conceded, we will "go ahead." For many years I worked successfully after the following formula, viz.: 1 oz. protosulphate of iron, dissolved in 16 oz. water, to which was added 4 oz. acetic acid No 8. This method, however, became troublesome; I found myself continually out of developer, and in many instances I would have to hurry up the solvent by pulverizing the iron, and even then wait for it to become wholly fit for use. About this time I concluded that my developer was a little too strong, and after a short study on the matter I hit upon this plan: I got 8 oz. protosulphate of iron and dissolved it in 64 oz. water. You will observe that, according to the foregoing proportions, this is exactly double strength. One point that I had in view was to reduce the strength, and the other was not to be obliged to dissolve iron so often. The last point was gained by dissolving 8 oz. at a time; the first point was made as follows: I took a 24-oz. bottle and poured into it 7 oz. of the iron solution, and marked with a piece of Anthony's adhesive paper (a diamond scratch is better, because it stays there) the top of it. I then added 4 oz. acetic acid No. 8, and made another mark, after which I added 9 oz. water and marked

again. Now, if you will observe, I had 20 oz. of solution (4 of which was acetic acid No. 8). In this 20 I had 420 grs. of iron. This, you will observe, is just 60 grs. (or $\frac{1}{8}$ of an ounce, 1 drachm) less than the first formula. I found it a great improvement, in giving detail, and have adhered to it for several years. The marking of the bottle is very convenient, as is also the stock, double strength solution of iron. When this is applied as a developer to the *wet plate* it combines with the free nitrate of silver upon said plate, and then becomes a developer, *and not until then* is it a developer in reality. Free nitrate is one of the component parts of a developer, and without its presence you might just as well attempt to develop the latent image on a dry shingle. When the image is fully developed, wash it thoroughly under the tap, being sure to cleanse the front well, and then turn the plate over and wash well the back of it. After which examine it well. If it is a failure, lay it aside and try again; when you have as good a negative as you believe you can make, then proceed to improve its printing qualities by some of the future methods described in "Mincemeat," which will commence (and perhaps end) in the next *Philadelphia Photographer*.

I. B. Webster.

## Errors in the Study and Practice of Photography.

BY GEORGE O. BROWN.

II.

Having in my former article shown a few prominent errors, which prove detrimental to success, I will now endeavor to point out some that many photographers are daily committing, for which there is not the least shadow of excuse.

In many galleries, claiming to be first-class, there are many *poor* negatives produced, when *good* ones might just as well have been secured. Photographers, when there are several customers in waiting, exhibit too plainly to their sitters their anxiety, in hurrying them off for the "*next.*" Often the sitter is informed, the negative is "splendid" (?), requesting him to call the next day and see the proof; at the same time the operator knows the sitter "*moved,*" or that the negative is not sharp, and is defective in general; but then he reconciles himself with the fact that there are others impatiently waiting and that he is sure of his customer, because his rule is "*payment in advance.*" This is very poor logic, for, on the other hand, the customer returns, and finds in the proof such an abortion that he immediately concludes the photographer is *not* such a master of his art as his imagination had pictured. And many see directly how the case is: that they were rushed through, sacrificed, as it were, for the benefit of another *subject.*

Another time, the operator scrutinizes the negative and discovers several imperfections, thinks of the wonderful *hiding* power of the "retouchist," and with an inward chuckle exclaims "*all right!*" Oh! what a multitude of sins (photographic) retouching covereth. Let us consider the negatives have been carefully varnished, free from dust, the backs cleaned off, and delivered in first-class condition to the printer; which is hardly ever the case. Generally the printer has more frames than he can properly attend to, and a "*boy*" is given to him as an assistant (?). Cloudy weather has caused them to be behind with the printing, and the first bright day they strive to find how many sheets they can "*print up;*" valuing the day's work by the *number* of sheets used, instead of the perfect prints secured. They examine their prints, vignettes and all, by opening the frames for inspection, so the direct rays of the sun fall on them. Not from ignorance is this done, but from carelessness and unconcern. The prints are then hurriedly washed, and, as the printer is *bound* to get through by 6 o'clock, having perhaps printed until nearly 5, his toning solution is made *double* the strength it should be; and, to use a printer's phrase, he "*slaps 'em in*" and "*puts 'em through.*" If his toning bath begins to show any propensities for slow toning, *without removing* the prints from it, he adds another *dose* from a solution of a strength unknown to any of the modern, aye, or the ancient, formulæ. The

prints, of course, come out as various in tones as there were different shades in the printing: many overtoned, vignettes dingy-looking, and no brilliancy to any of them. Who gets the blame? Not the printer, for he has an excellent reputation, is a first-class printer. Ask him, "Why is this thus?" and he will reply, "Paper's bad; something's the matter with it; it must be old," &c. To the stockdealer is consequently dispatched a letter, elevating him in a "*balloonish*" manner, for sending such trash. Stockdealer is astonished, for he has just, with the same mail, received a letter from another party speaking in the highest terms of praise of the *same paper*, and containing an order for a ream of it.

There is in printing great chances to display discrimination, to exhibit skill, and good artistic taste and judgment. Leave a good operator to the mercy of a careless, indifferent printer, and in a short time his reputation is gone the way of the *woodbine*. It is the little things in photography that must be noted and observed. Rules and regulations must be known and followed in all their minuteness, simple as some may consider them. Guesswork and thumb measurement is never adopted by a wise photographer. Perhaps some of my readers may remark, "We all know this." "*Jess so*," but how many *heed* what they know? Because they have the knowledge are inclined to consider they can perform certain requirements or not? Their (in) discretion, indifference, egotism, heedlessness, or whatever it is—I confess I hardly know what to consider it—allows them to neglect with impunity some of the essentials, which in the final result are sure to end in failure.

Then, again, the chemicals are to blame. No matter what degree of trouble the photographer may meet with, the fault is inevitably laid to the chemicals; he *never* (?) is in error. I have known instances where impure water was used in making a negative bath, and because it did not "*work*," the manufacturer of the nitrate of silver used was proclaimed dishonest, and the silver *worthless*, without any attempt whatever to investigate. Other chemicals are often similarly condemned, where imperfect washing of dishes, graduates, &c., is the real cause of trouble. Both expense and labor might be saved would the printer tone only such prints as he knew would be worth mounting; but, generally, so anxious are they to show a day's work by the *number* of prints, that both prints too light and too dark are toned. Often *all* are cut out and mounted before any examination is made, and imperfect ones thrown out, resulting in both a loss of time and material. Even in mounting and cutting out photographs they can be spoiled. There is a rule for cutting out pictures, which of course all know, but I have seen, coming from galleries that boasted of artistic perfection, cards cut out with the head sometimes in the centre, then close to the top of the card, and entirely too far down. Often the very pose the operator has taken such pains to secure is totally destroyed by the print being imperfectly or improperly cut out and mounted.

There is an adage which reads, "Make men intelligent and they become inventive." The more a photographer learns about his profession the more convinced will he become that, although he does perhaps know considerable, *what he does not know is the most*. During cloudy weather, or dark days and stormy ones, is the time to study and "read up," or, as Captain Cuttle says, "overhaul your cargo," clean up, rearrange, and attend to things which the bright and busy days may have caused you to slight, neglect, or let accumulate. The best rule to have posted in all departments of photography is, MAKE HASTE SLOWLY.

## Photographic Society of Philadelphia.

STATED meeting held March 5th, 1873.

The minutes of the last meeting were read and approved.

On behalf of the committee on the public lantern exhibition, Dr. Wilcocks reported that an exhibition had been given at the Franklin Institute on the evening of the 22d of February, to the satisfaction of every one present. On motion, it was resolved that another exhibition be given in the latter part of this month or the beginning of next, and that the same committee be

requested to make the necessary arrangements.

The Secretary read a paper on the collodio-bromide process.

Mr. Young exhibited a print from a stereoscopic negative on a dry plate made with an emulsion by Mr. Stillman's formula, containing eighteen grains of nitrate of silver, four drops of nitric acid, and two drops of aqua regia per ounce. Mr. Young remarked that the sensitiveness of the emulsion seemed to increase by keeping, and that in the case of the picture which he exhibited, the plate had been prepared six days after the mixing of the emulsion, and had had an exposure of four seconds with a six inch Wilsonian stereo lens.

A member exhibited an ambrotype which had been found among the ruins of a house recently burnt. The image was still visible, and seemed to have been burnt into the surface of the glass, for it could scarcely be scratched with any sharp instrument.

Mr. Everett, who was present during the evening, upon introduction by Mr. Schreiber, exhibited some very beautiful samples of touched and untouched prints made by Edwards's new process for reproducing negatives and making positives by contact. All the prints were very brilliant and delicate, and free from the granular effect so often visible in enlarged photographs.

On motion, a vote of thanks was tendered to Messrs. Everett and Schreiber for their interesting exhibition; also to the Secretary for his paper on the collodio-bromide process.

After adjournment, some of Mr. Everett's transparencies and some slides from collodio-bromide dry negatives were shown in the sciopticon.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

## THE INDIANA PHOTOGRAPHIC ASSOCIATION.

THE regular monthly meeting of the Indiana Photographic Association was held at J. B. Mendenhall's "Bee-Hive Gallery," Wednesday, March 5th. The attendance was comparatively good.

W. R. Householder, of this city, and Moses Tomlinson, of Plainfield, Ind., were elected members.

The Library Committee reported that they had ordered the books agreed upon at the February meeting, and that all had been received except the two volumes of the *Photographic World*, which would also soon be here. The books were ordered through Mr. Henderson George, who generously threw off his commissions, and thus enabled the committee to save to the Society several dollars. The books were turned over to the librarian, and committee continued. Mr. George received a hearty vote of thanks for his generosity.

The committee to draft rules to govern librarian reported a catalogue of "rules," which, after a slight addition and amendment were agreed upon, were adopted as a whole, and ordered spread upon the records, but are hardly of enough interest to the public to publish in the *Photographer*, I presume, therefore to omit them.

Mr. Elliott, in behalf of Lon M. Neeley, presented the Association with a relic of the fire which so ruthlessly destroyed Mr. Neeley's gallery a short time ago, in the shape of a fused lens.

Mr. Sargent then read a creditable paper; after which a recess of a few minutes was taken, which was improved by most of the members present, in the way of examining the new library books, and especially the pictures contained in them.

The inevitable *Hoosier Heliographist* was then read; after which the President appointed Mr. Judkins to bring pictures for criticism at our next meeting, and Mr. Cadwallader read a paper at the same time.

On motion of the Secretary, it was agreed unanimously that this Association shall propose an exchange of pictures with the Chicago Society, and the members present were requested to prepare specimens at an early day for that purpose.

On motion of Mr. Adams, the Society agreed to discuss the subject of the "Negative Bath" at our April meeting.

J. PERRY ELLIOTT,
Secretary.

## ACTION OF THE BUFFALO PHOTOGRAPHERS.

The Buffalo photographers are alive in the matter of the Exhibition, and have held several enthusiastic meetings to make arrangements. The reports of them only reached us as we were making up for press, and we can only add the resolutions passed by them, with a few other notes, which, however, give the gist and spirit of the whole.

The meetings were held at the store of Messrs. D. Tucker & Co.; Mr. D. Tucker, Chairman, and W. J. Baker, Secretary.

At the second meeting, the minutes of the previous meeting being called for, the Secretary stated that the principal business transacted was the passage of the following resolutions offered by Mr. Hambleton:

*Resolved*, That the photographers present cordially approve of and indorse the action of W. J. Baker in his welcome to the National Photographic Association, as published in the *Philadelphia Photographer* of January 1st, 1873; and be it further

*Resolved*, That we take measures to co-operate and to secure the assistance of all Buffalo photographers in arrangements for the Convention.

After the adoption of the resolutions, the Local Secretary made a brief statement of the objects of the National Photographic Association, giving the reasons why they intended to come to Buffalo this year instead of Rochester, as originally proposed; and also stated what would be required in the way of preparation for the meeting of the Convention.

Mr. Samo offered the following:

*Resolved*, That a committee of three be appointed by the Chair, to draft resolutions expressive of the feelings of the photographers of Buffalo towards the Convention.

The resolution was carried, and the Chair appointed as such committee Messrs. Joseph Samo, H. McMichael, and Thomas Meredith.

After some informal discussion the meeting adjourned till Tuesday, March 18th, at 7.30 P.M., at the same place, at which time, the report of the Committee on Resolutions being called for, the following was submitted and read by the Secretary:

The Committee appointed to draft resolutions expressive of the feeling of Buffalo photographers towards the coming Convention beg to present the following:

*Resolved*, 1st. That we have learned with pleasure the decision of the Executive Committee of the National Photographic Association to hold the next Convention in our city.

*Resolved*, 2d. That we unanimously welcome and do extend a cordial invitation to all photographers to attend the forthcoming Convention.

*Resolved*, 3d. That we will do all in our power to assist the Local Secretary of the National Photographic Association, W. J. Baker, to make the Convention a perfect success.

*Resolved*, 4th. That we recommend, in view of the importance attaching to the business, scientific, and artistic meetings of the Convention, that, as far as possible, the photographers of Buffalo, during such sessions, suspend the business of their galleries, in order that they and their employees may attend and reap the full benefit of the Convention.

*Resolved*, 5th. That we form committees to assist in arranging the Exhibition and in decorating the Rink.

The report was unanimously adopted. R. H. Cline, Thomas Meredith, and Charles Boelker were elected Committee on Decorations; and C. H. Nimes, Joseph Samo, George Farnsworth, Robert Hambleton, and W. W. White, Committee on Hanging Pictures, &c.

After discussing the subject of forming a local society, the meeting adjourned.

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We copy the following from a Columbus paper of March 16th: "Preston C. Nason, B. H. Howe's 'right-hand man,' took his departure yesterday for a four-weeks' tour of the Northern and Eastern cities, his purpose being to visit the larger manufactories, examine closely into the latest improvements of such machinery as is best adapted to their wants, and purchase an engine as an auxiliary to their already immense trade" Mr. Nason called on us with new orders. His sales of our books is immense.

## CHICAGO PHOTOGRAPHIC ASSOCIATION.

An adjourned meeting of the Chicago Photographic Association was held at the store of Chas. W. Stevens, No. 158 State Street, Wednesday evening, February 19th, Vice-President Green in the chair.

Subject for discussion, "De Legibus,"* continued from the last meeting, and partaken in by Messrs. Abbott, Hall, Hirsch, Green and Cross.

Mr. Green read a paper on the subject; criticizing several works of art by great painters, such as Bierstadt, Hart and Bradford.

The discussion on the subject-matter of Mr. Green's paper was carried to considerable length by the members.

Mr. Abbott said he thought we had got into deeper water than any in which he had ever tried to swim; thought Mr. Baker was attacking just what we had for years striven to obtain.

Mr. Green.—A member has said that we have lost sight of the business of the Society, and turned our meetings into a school for the discussion of art. I think that is just what is needed,—a little education in art.

Mr. Hall.—I expected something tonight to rebut the testimony I offered at last meeting in support of art, its laws, and Mr. Baker, but nothing as yet has been given us that I consider of value, or that goes to show that "De Legibus" is wrong. Mr. Baker admits, at once, that he has nothing to say against the stereo; it is set down as a scientific toy by every one. He has been accused of being treacherous to his art, but I differ with his accusers. He is an educated man; has taken the trouble to investigate and post himself; *he* sees the fine point; his love for the art urged him to write "De Legibus." My own opinion s of no particular value, but the authorities I offer cannot be disputed. We have got to take a higher standard if we bring photography up to where it belongs, and we must come up where Mr. Baker says.

The President then stated that a member, Mr. Hodges, had succeeded in finding something to cure those troublesome pests, blisters, and would demonstrate the same to the members. Mr. Hodges then took several untoned prints, and washing, as usual, toned them; placing some of the prints in pure water, and others from the toning-bath directly into a solution made with his blister-cure compound, from water and blister-cure solution. Prints placed in fixing-bath, thence into water; those passing through solutions, as usual, showed the blisters in force, while those treated with solution of blister-cure were without a blemish, and greatly improved in tone. This demonstrated the perfect success of Mr. Hodges's discovery, and those who had suffered with the disease were greatly rejoiced at knowing a remedy was found and could be obtained. Mr. Hodges explained that he would put up the "blister cure" in packages, and place it in the market, which met the approval of those present.

Mr. Hodges also exhibited a large matt, filled with photographs of winter scenes, made under the skylight, all being novel and effective, doing Mr. Hodges great credit as a skilful manipulator of chemicals, and light, and as a genius in arranging the subjects.

On motion, Messrs. Hall and Copelin were appointed a committee to arrange for an exhibition of the stereopticon and sciopticon, with a paper to be read "On the Chemistry of Lights Used, and the Making of Transparencies." Adjourned.

A regular meeting of the Association was held on Wednesday evening, March 5th.

The meeting was called to order; President Hesler in the chair. After reading the minutes of the last regular and adjourned meetings, the usual business in order then followed.

Mr. J. H. Abbott read a paper on Printing, Toning, &c.,* which was very practical and interesting.

The following gentlemen were proposed for membership and duly elected: E. D. Ormsby, G. W. Stote, A. E. Willis, T. W. Pattison, F. E. Hesler, Henry Heyde, E B. Fredericks, Fred. Wurth, J. Steffens, J. M. Gains.

Mr A. J. W. Copelin submitted his re-

* For Mr. Baker's article see *Mosaics*, 1873.

* We hope to print this paper at some future time.—Ed. P. P.

port as Secretary for last year. He gave the general average of interest and attendance, but the main portion of his report was devoted to a criticism of the action of the editor of the *Philadelphia Photographer* in devoting so much space to the proceedings of societies, to the exclusion of other matter, and suggesting that the minutes of this Society be not published. He alluded to the lengthy report of the proceedings of this Association given in the last number of the magazine.

Messrs. Hall, Greene, Melander, and others, spoke against receiving the report of Mr. Copelin, as it reflected on a gentleman (Mr. Wilson) who was one of the Society's best and tried friends, and one who in our hour of pressing need, after our great fire, came nobly to the rescue with words of cheer and appeals for money to relieve our suffering, which appeal was met with hearty response by the fraternity of the United States. Mr. Copelin defended his report, and it was finally accepted, and ordered to be forwarded with the minutes.

The President appointed the following gentlemen to read papers at the next regular meeting: L. M. Melander, F. H. Davis, and William Shaw. The latter gentleman stated that his paper would be on "Solar Printing on Canvas."

On motion, adjourned.

G. A. Douglass,
Secretary.

## Photographic Association of the District of Columbia.

The fifth meeting was held at Wheeler & Angerman's gallery, Tuesday evening, February 25th, 1873. Regular business of the evening was transacted. Mr. Pulman presented a negative with peculiar transparent markings, and asked the opinion of members as to its cause, remarking, that he often found it easier to remedy evils than to trace them to their causes. Various things were suggested that would produce such markings, but none seemed to fit the case in hand.

Only a few pictures were presented for discussion, but we hope to do better in that direction next time. Mr. J. C. Sarmiento presented an interesting paper, entitled "Water," which was read by the Secretary. Methods of preventing skylights from leaking were discussed. The general opinion was that it is better to avoid the annoyance from leaky lights by guiding the leakage where it will do no harm, by means of gutters attached to each strip of sash; said gutters leading into a pipe emptying on to the roof, or into the sink of the dark-room. Many bits of photographic experience were related, and topics of local interest were discussed. The next meeting will be held at Pulman's gallery, Tuesday evening, April 1st, 1873.

E. J. Pulman,
Secretary.

## Maryland Photographic Association.

The last meeting was held March 13th, 1873, at Messrs. Bryant, Stratton & Sadler's Business College, 8 N. Charles Street.

Minutes of former meeting read (from *Philadelphia Photographer*) and adopted.

The Executive Committee recommend the following rules to regulate the exhibition of photographs, all of which were adopted:

"Rule 1. *Every* member of the Society is requested to bring one print of a certain size mounted. Neither print nor negative to be touched or retouched. The negative to be exhibited at the same time with the print, together with a card containing name of maker, and month in which produced. The print to become the property of the Society.

"Rule 2. *Every three months*, members are requested to bring a stopped-out picture from a retouched negative, together with the negative, subject to regulations as contained in Rule 1.

"Rule 3. The Executive Committee are to determine the style and size of picture to be exhibited from time to time.

"Rule 4. At the first meeting in each year there shall be a competitive exhibition of pictures. The size to be determined under regulations to be hereafter adopted."

The Secretary read the form of a circular inviting the photographers of the State to become members of the Association, which

was approved and ordered to be printed. The following resolution was then passed.

"*Resolved*, That each member be requested to contribute monthly an original article, to be handed to the Secretary one week before each regular meeting night, and that the Secretary be requested to arrange all the articles and read them before the regular meetings in the form of a paper."

Meeting then adjourned.

G. O. Brown,
Secretary.

## PENNSYLVANIA PHOTOGRAPHIC ASSOCIATION.

The stated monthly meeting was held at the hall, S. E. corner Tenth and Walnut Streets, Monday evening, March 17th, 1873.

Mr. Thomas Mahan and H. S. Keller were elected members of the Association.

Mr. Carbutt reported from the Executive Committee that they were unable to obtain the services of Coleman Sellers, Esq., for the proposed lectures; his engagements were full until our summer session.

President Moore took the floor to take exceptions to the manner in which the proceedings of our last meeting were reported in the *Philadelphia Photographer*. The reason the evening was mostly occupied by the lantern exhibition was simply that the Executive Committee had not offered anything for discussion, and all business of the meeting had been disposed of, and further remarked, that Mr. Wilson having been the first to introduce lantern exhibitions in our meetings, should not be the first to find fault.*

A recess was taken to introduce Mr. Everett, the agent for the Edwards process of making positives, for the purpose of reproducing negatives on an enlarged scale.

The specimens exhibited by him were fine, and cannot be equalled by solar printing His process for making the positive is a secret, and is for sale, and said to be by all who have purchased, very simple and easy to work.

* The Secretary sent us no report of the last meeting, and we made our own, as it struck us, correctly.—Ed.

Mr. William Bell (our old dry-plate defender) was present, and gave a very fine account of his trip across the Plains. His description of the difficulties are certainly sufficient to deter any wet-plate worker from expecting good results from such a trip. The water is of such an alkaline nature that all of the iron would be precipitated from the developer, and as the wind usually walks along at the enlivening pace of about thirty miles an hour, and dust plenty, that alone would be sufficient to compel the use of dry plates for such trips. An expedition fitted out with dry plates, stereo size, and afterwards reproduced by a process something similar to the Edwards process, would be a great benefit to the department, and would give much better results.

His remarks were very interesting, and pleased all who were present.

Mr. Bell, in alluding to Mr. Edwards's process, took the ground that a photographer who has succeeded in inventing a new process, should be paid for that invention by those using it; and as Mr. Edwards had evidently succeeded in obtaining a result much better than can be made by any of the known processes, he is fully entitled to the small consideration his agent asks for its use.

Mr. Charles McCormick presented for inspection several samples of work made in his south light, lighted, as he expresses it, "obliquely from the rear," as described in the last issue of the *Philadelphia Photographer*. The pictures were very fine, and would do credit to any of the north light advocates.

Mr. John Clemons exhibited some pictures of himself, taken by Mr. H. J. Newton, President of the Photographic Section of the American Institute, New York. These pictures were made by Mr. Newton in his six by eight light, screened with white muslin, with a "Peerless" lens, exposure at nine o'clock on a cold morning of only seven seconds, and considered about full exposure. The result was fine, detail was beautifully rendered, high-lights soft and very round. This result was obtained by a mechanical invention of Mr. Newton, which consists in having a slot four inches by two on each side of the tube, on the front of the box; the

opening was covered with an emerald-green glass, the light passing through the glass at the time of the exposure of the lens. The result was somewhat similar to that exhibited by Mr. Rhoads at our former meetings.

Mr. A. K. P. Trask exhibited a number of enlargements made by the Edwards process, which were favorably commented upon.

Our next meeting promises to be an interesting one, and we hope all will be present.

W. L. SHOEMAKER,
Secretary.

## BROOKLYN PHOTOGRAPHIC ART ASSOCIATION.

THE regular monthly meeting of the Brooklyn Photographic Art Association was held on the 10th of March, at the rooms of Mr. Frank E. Pearsall, Vice-President Hanney in the chair. Mr. B. F. Troxell, Secretary. A full attendance of members was present. After reading and adopting the minutes of last meeting, a ballot was taken to fill a vacancy in the Executive Committee, resulting in the election of Mr. F. H. Eales.

The subject for discussion for the evening was, "The Transparent Positive." It was then taken up and exhaustively treated by debate and reading of papers, every member participating, and giving his views and mode of production.

Messrs. E. & H. T. Anthony & Co., of New York, made an offer to donate to the Society a copy of all the works on photography now in existence, for which a unanimous vote of thanks was tendered. Mr. Charles Williamson also donated a stereopticon lantern, and received a vote of thanks for the same.

The committee on procuring rooms for the exclusive use of the Association reported progress.

Mr. Alva Pearsall gave notice that he would prepare a paper to be read at the next meeting, on "Chemical Manipulations and Lighting of the Subject." Mr. Berger would also read a paper on "Retouching Negatives."

After considerable informal discussion on various minor topics relating to photography, the meeting adjourned to the second Monday in April, to meet at the rooms of Mr. Alva Pearsall.

## German Photographers' Society, New York.

THE first monthly meeting in the new society year of this Association was held Friday, March 7th, at their rooms, 64 and 66 E. Fourth Street, President W. Kurtz in the chair.

In behalf of Messrs. Anthony & Co., Mr. O. Loehr presented a bound copy of the "Bulletin" for 1872. A vote of thanks was passed and the Secretary ordered to express the same to the generous donors.

The principal business before the meeting was the election of officers for the ensuing year, and resulted as follows: Mr. W. Kurtz, President; Mr. P. W. Weil, Vice-President; Mr. H. Schoene, Rec. Secretary; Mr. Edward Boettcher, Cor. Secretary; Mr. L. Nagel, Treasurer; Mr. O. Lewin, Fin. Secretary; Mr. H. Martin, First Librarian; Mr. W. Trapp, Second Librarian.

After hearing the very satisfactory report of the Treasurer, the meeting, on invitation of Mr. Kurtz, adjourned to the club-house of the "Palette," in order to view the above gentleman's exhibition of photographs for the Vienna Exposition.

To prevent a bad arrangement in the hanging of the pictures, Mr. Kurtz has had the happy idea to arrange them to suit himself, and inclose the whole in a large, beautifully worked show case, securing thereby the best possible effect. The members of the Society were unanimous in praising Mr. Kurtz's artistic taste in the shape and finish of the case, the choosing of the colors of matts and passepartouts, and the general arrangement, making thereby as a whole an imposing impression. It is needless, of course, to say anything about the photographs themselves; every photographer, in this country at least, knows the work coming from Mr. Kurtz's studio. There is just as good posing and lighting done elsewhere, negatives and prints made just as fine, but for all that there is a something indescribable in that gentleman's pictures, which

makes them quite different from any others, even so that they can be recognized without his name on them.

After passing a vote of thanks to Mr. Kurtz for giving the members this pleasant opportunity to feast their eyes, the meeting adjourned.

EDWD. BOETTCHER,
Cor. Secretary.

## MATTERS OF THE

THE next annual Convention and Exhibition of the National Photographic Association will be held in Buffalo, N. Y., beginning Tuesday, July 15th, 1873. Mr. W. J. Baker, Local Secretary.

THE Permanent Secretary invites papers from *all* who choose to offer them, and requests that they be handed in to him before the opening of the Convention, that place may be made for them in the order of business.

MR. I. B. WEBSTER, our esteemed contributor, says: "I am proud of the success of the National Photographic Association, and hope to see it flourish and grow to such dimensions as to embrace *every* man, be he great or small, in its circle. I want to see it a power in the land, and I believe it can be if we all pull *together* with a will. It is of vast benefit to photography, and of incalculable benefit to photographers."

THE SCOVILL AND HOLMES MEDALS.—Competitors are notified that their applications and matters concerning the same must be in the hands of the Permanent Secretary by June 15th, to insure the consideration of the committee.

THE opinions of Messrs. Howson and Bell, on the validity of the Shaw silver-saving patent, may be had by all members of the National Photographic Association, on application to the Permanent Secretary, free of charge.

THE Manual of the National Photographic Association has been sent to all members of the Association, whose names have not been dropped from the roll for non-payment of dues. If any have been overlooked, they will please notify the Permanent Secretary at once.

MEMBERS in arrears are urged to pay their dues at once to Mr. Albert Moore, Treasurer, No 828 Wood Street, Philadelphia, as the committee needs funds to further the interests of the coming Exhibition.

To become a member of the National Photographic Association costs $4; $2 for entrance fee; $2 for one year's dues, in advance; employees, half rates; life membership, $25. Apply to Edward L. Wilson, Permanent Secretary, Seventh and Cherry, Philadelphia.

LIFE MEMBERS AND VETERANS.—No additions to the lists since the issue of the Manual.

## GOLD TONING DISPENSED WITH.

BY H. J. RODGERS.

"ECONOMY is wealth," *provided* we can save without hindrance toward ultimate success. During the past five or six months I have used no gold in my toning bath, which is most assuredly a *saving* as well as improvement. The process, which I will give to my brother photographers, is simply as follows:

In preparing the silver bath, 30 grains to the ounce of water, add 10 drops of ammonia to the quart of solution (omit the fuming process), and as many drops of saturated solution of alum. (Thanks to Henry T. Anthony for the latter invaluable idea.) Float the paper from three to five minutes, according to the temperature. Print not quite as deep as is required for gold toning. Wash prints fifteen to twenty minutes, after which immerse them from five to ten minutes in the following solution:

Extract the juice from five lemons; with one pint of water, add ¼ ounce acetate of soda and ½ ounce of powdered alum, dissolve and filter—keeping this for *stock*. Now, then, from two to four quarts of water in washing dish add from ½ ounce to 1

ounce of the above solution, in which let prints remain five to ten minutes, when the beautiful changing effects so desirable will be pleasingly noticeable through the given time. Prepare the toning solution as ordinarily with water and washing soda (excepting the gold), adding as a substitute alum in proportion of 20 drops of saturated solution to the quart of water. Let prints remain in from two to three minutes till the brilliant purple hue in the face changes into a warm (almost) flesh tint; subsequently changing the prints into water, then prepare for fixing as follows:

Hypo, 3 ounces to the quart of water; alum (saturated solution), 15 drops to 1 quart of water. Fix from twenty to forty minutes. Wash prints the accustomed length of time, however, not far short of five hours. Every few days add a few drops of alum to both toning and fixing bath. My toning bath is at present five months old, and, like an old fiddle, works better each successive day, and is of a brilliant wine color. I hold that the most fastidious cleanliness must invariably be observed in the printing-room; moreover, that printing is too important a branch of the art to be intrusted solely with inexperienced boys and illiterate charlatans, as is sadly too commonly the case.

All printing should be done in a diffused light, using either ground-glass, blue, or white tissue paper, as may be required for the respective intensity of each negative.

It requires the utmost delicacy of manipulation to produce a soft, brilliant, warm-toned print from a harsh, crude, coarse, cold negative, and a very small amount of experience to produce a cold, metallic print from an *ethereal*, *soft* negative. I send samples of prints *toned without* gold.

N. B. Albumen paper tinted a purple shade (Clemons's) is preferable for rich tones. However, the beautiful sepia and brown shades can be produced on white paper by printing darker than for the tinted paper. I have had poor success with *pink* paper. With paper of a purple hue the whites are soft and pearly, strongly resembling porcelain. The shadows are azure-like and transparent. As the utmost delicacy of the albumen is preserved the result is, the loveliest gradation of shade in the middle tints.

In the hypo bath the action is rapid at first, but in from twenty to thirty minutes the prints assume the most pleasing effects.

Perhaps it would be advisable for photographers to work into this process by the following method, thereby relieving themselves of the results in many instances produced at first, where a change of manipulation is suddenly made.

Take 15 grains of gold, put it into 1 pint of water, adding 3 drops of nitric acid. Keep this for stock; and when ready to use the toning bath already described, add about ½ ounce of the gold solution. This will assist in the first experiments. Keep the toning bath. Age will add to its value in regard to fine and delicate working qualities.

The 15 *grains of gold*, as above applied, will tone one thousand prints. After having used, in connection with this process, the stated amount of gold, then discard it entirely. After the prints have been mounted and dried, I have the most sanguine confidence that the results will give the utmost satisfaction. I shall look for some of them at the Buffalo Convention.

## OLD vs. NEW.

BY P. C. NASON.

It has been but a very few years since the (now unsightly) "Rustic" was born to the world. But in this, as in every other branch of art industry, there has been a complete revolution, and to-day the demand for *new* and *artistic* productions in this particular line far exceeds the *general* designer's skill; and is owing in a great measure, undoubtedly, to the art education of the masses.

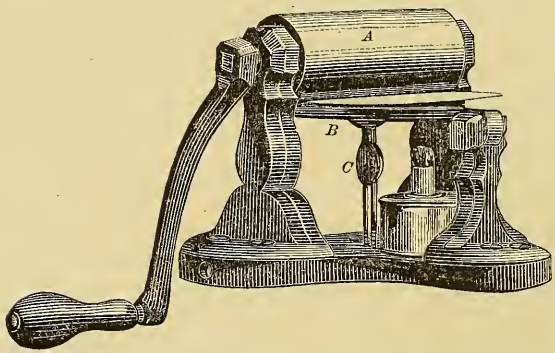
Every man's motto, especially a photographer's, should be a *progressive one*, but how very few make it so. Stop, dear reader, and think for a moment. It is 1873. Are you aware of the fact? If not, let me beg of you to drop those old styles of oval and rustic frames, and introduce to your patrons a better and more modern class of goods, and thereby improve their tastes and your pockets.

Columbus, Ohio.

## THE WESTON BURNISHER.

We only had space to make but a brief allusion to the Weston Burnisher in our last number, promising to tell our readers more concerning it in the current number. We have had opportunity to watch the experience of several photographers with it, and the general verdict is highly in favor with the Burnisher. As an illustration of its capabilities, we have had our picture burnished by Mr. Weston's invention, and we think it will speak more eloquently to our readers than anything we can say. By reference to the drawing it will be seen that the machine consists of a rotary feed and pressure-roll, A, and stationary burnishing tool, B, and is used for polishing photographs.

Any degree of finish can be given by adjusting the pressure, by means of the screw, C, from a "roll finish" to the highest enamel.




The tool is heated to about the temperature of a laundry iron, for glazing linen, and to glaze the print or card, adjust the pressure, place it between the roll and burnishing tool, print side down, and roll it through. This with a slight degree of pressure, will produce a fine "roll finish;" by increasing the pressure, and repeating the process, any degree of polish can be obtained, as shown in our picture.

Such a polish as this Burnisher imparts, has been coveted a long while by photographers, and all sorts of means resorted to, to obtain it; the first step being the substitution of albumen for plain paper, but with only partial success. Now, it seems that there is no end to the degree of burnishing which may be had. For an example of the work of the Burnisher, we refer our readers to our picture in our current issue.

Further on, some allusions are made to the leasing of the Burnisher, and the terms of the lease, to which we add some notes in answer to our correspondents.

## THE WESTON BURNISHER LEASE.

In the February *Photographer* you advertise and editorially notice the Weston Rotary Burnisher. In connection with that subject, and in reply to the very novel proposition that the Burnisher will be *leased* not *sold*, permit me to submit for the consideration of photographers two propositions:

1st. If an article has *no merit*, is it *profitable* to lease it at an annual expense of $16, or any other sum?

2d. If it has *undoubted merit*, and will enable a photographer to so improve his work that its use becomes a *necessity*, is it *safe* to *lease* such an article, it being protected by letters-patent of the United States?

Mr. Bass's proposition to lease may be all right, but for myself I should hesitate long before encouraging the manufacture of a club to break my own head with, or in other words, place my affairs at the mercy of a corporation, which might increase the royalty to a ruinous rate after the work was introduced and a demand created for it.

You claim, and I believe have endeavored, to conserve the interests of the profession with marked success. I respectfully submit whether the proposal to *lease* a *patented article* don't look a trifle suspicious? Knowing something personally of the merits of the Weston invention, I have deemed it my duty to call attention to the very unprecedented proposition contained in Mr. Bass's card, and believe the interests of very many photographers will be advanced by your publication of the foregoing, or call-

ing editorial attention to the peculiarities of the advertisement in question.

Very truly yours,

J. Lee Knight.

We do not think our correspondent exactly understands the conditions on which the Weston Burnishers are leased. The price for use after the first year is fixed by the terms of the lease, so that any one leasing a Burnisher is not subject to any exactions whatever beyond what he agrees to in his lease. True, the plan of leasing is a new and novel one, but it is a good one in this respect, namely, it enables every one to have its advantages by paying a small sum annually, while if the presses were *sold*, and enough charged to cover their cost, and a royalty to patentee and manufacturer, the price would be too high for the majority to make the purchase. It seems to us that Mr. Bass's plan is the best one, and as it is optional with photographers whether they accept it or not, no harm is done. The lease says that the photographer is to pay a certain sum, according to size, "every year *while he shall retain* the said Burnisher or press." Of course, if he returns it that ends the lease.

Another correspondent who has a Burnisher and likes it, also desires us to caution photographers on the lease which they are asked to sign by Mr. Bass. He says:

"You will observe on reading the conditions of the lease, that parties leasing the press are holden for the rent of them for seventeen years, whether they use them or not. Probably there will be an improvement, and we want the best"

He is also wrong. The lease binds the manufacturer to lease the press, but the photographer may surrender it at the end of any one year, and notify the manufacturer that the Burnisher is subject to his order if he chooses to discontinue its use. Moreover, he is entitled to any improvements that are made upon his Burnisher so long as he fulfils the conditions of the lease, which to us appear to be right and proper and just to all concerned. Mr. Bass, moreover, has promised us that future leases shall so read that there can be no mistaking them. We know that it is his desire to act liberally, and it is to his interest to do so. We are assured too that he is entirely reliable.—Ed. P. P.

## TO OUR SUBSCRIBERS.

Premiums Extraordinary.

We are happy to state that at no previous time have the subscriptions to our magazine come in so freely as they have during the past three months. Thus encouraged, we contemplate increasing the number of our pages, *without extra charge*, if the circulation reaches the degree which will permit us to afford it.

In order to make the matter a mutual one with our subscribers, we are free to ask their assistance in increasing our circulation, for which kind service we will not only give them the advantage of our premium list,—one dollar's worth of photographic books of our own publication for every new subscriber for a year—but the *special premium* of *six handsomely mounted German Cabinet Pictures of Ladies*, by Fritz Luckhardt, Vienna, Austria. These pictures are alone worth $3 for the set, and more is asked for such by dealers. Mr. Luckhardt was awarded the gold medal at the St. Louis Exhibition, and has just had another awarded him at the French Exhibition, and he is to-day considered *the best photographer in the old world.* Go to work early, so as to secure this *really handsome set of pictures, the premium, and the enlargement of your magazine*, for which you have already paid your subscription.

If you increase our list 500 by May we will add eight pages monthly.

If you increase our list 1000 by May, we will add sixteen pages monthly.

We make this offer *as a matter of business*, and not as a favor to any one on either side. It will pay you to give a year's subscription to your operator, or to your friend or customer, in order to secure these pictures.

The Luckhardt pictures will not be sold during March and April at any price, and are only obtainable for new subscribers.

## ART STUDIES FOR ALL.

### II.

(Continued from page 4.)

9. TASTE is the caterer to the mind, and accepts or rejects whatever is pleasant or unpleasant to it. Man is governed by his taste usually, because it gives him the most pleasure, and his will falls in with what it dictates.

10. Cultivation influences the tastes, so that a man's tastes in turn are governed by the influence of the objects around him, and by his associations, as well. If a photographer reads and studies, his tastes will be moulded by what he reads. If he studies the work of others his tastes will be influenced by that also, either for good or for bad.

11. In matters of art there is the natural, the cultivated, and the national taste. The former is sure to manifest itself, to impress itself upon the work of the artist or artisan in spite of himself. His natural taste is of course a part of his nature. Still the best natural taste needs cultivation and study, and the companion of works of art mature it.

12. A person of cultivated taste must have a correct understanding of the principles which govern the producers of works of art, as well as a knowledge of the principles that govern the adaptation of nature's works to the wants of man. To a person of refinement coarseness cannot give pleasure, and *vice versa*. To one not understanding the technical beauties of a work of art, such a work cannot appear clear or be understood.

13. A man's taste also governs his style and the style which characterizes his work, as well as the style of an author, depends upon the character of his own mind. What the rules of spelling, grammar, and composition are to authorship, the rules of our own light and shade and color are to the artist, and are indispensable to him—not to be followed too studiously or exactly, or closely, but *generally*—to be influenced by them, but not ruled arbitrarily, to bend to them, but not to be broken down or tied fast by them.

14. These rules are founded on the laws of nature, and are the only true basis for original designs. Once master them and you are ready to produce work characterized by your own taste and style. Self-reliance is needed to sustain you The strength of others will be of no avail to you. We do not mean conceit when we say self-reliance. The former degenerates while the self-relying are always improving and growing stronger and stronger in their own might, and they tower above their co-workers, and win fame and fortune in the world. But without a knowledge of the rules of art, no one can hope for success. How *can* you advance in anything which you cannot understand or appreciate?

We hope in our future studies to make these art principles and rules plain to you, so that they will give you both pleasure and profit.

## MORE FIRES.

WE regret to record the loss of some more photograph galleries by fire, and among them that of our old and esteemed friend, Mr. J. C. Potter, of Elyria, Ohio, who writes us as follows:

ELYRIA, March 16th, 1873.

EDWARD L. WILSON.

DEAR SIR: How natural it is during childhood when a little urchin pinches his finger or loses his favorite toy, to run to his paternal or maternal guide, and with tears in his eyes and choking sobs, pour into a willing ear the cause of his grief. Well, we are all children of a larger growth, and as we poor *photographers* look upon you as a paternal friend (at least by adoption), it is quite as natural for us to pour into your *ever*-willing ear our *little* or *larger* griefs, for be it distinctly understood we, as a class, get our full share of the ills with a *sprinkling* of the good. Last night I was in peaceable possession of a very comfortable suite of photograph rooms, but to-day I am mourning for my lost *ball*.

At or about twelve o'clock last night the alarm of fire was sounded through our streets, and I, having been a member of our fire department for the past eight years, have acquired the habit of getting to the designated point on double-quick. You can

imagine my consternation on seeing the largest block in our town, and in which my rooms are, or *were* situated, on fire, and hopelessly beyond the control of our firemen. My first care was to try and secure my camera. I succeeded so far as to save my 3 B. Dallmeyer, my solar, and a ½-size H. B. H.; three others were left to feed the flames. I saved a good share of my large pictures, mostly custom work, and a few large frames; everything else was doomed to destruction. I had some eight or ten thousand card negatives, about one thousand 4-4, and over two hundred stereo. negatives (that had cost me much labor and patience to get), and not one could I save. My loss will be about twenty-five hundred dollars, and I had only one thousand dollars insurance. Now, you must not suppose that I am going to sit down and mourn over my misfortunes, and like the man in the fable pray for Jupiter to help me lift the wheel out of the rut, but I am going to try and lift it out myself. I shall from rough lumber build me a ground-room that will answer until the block can be rebuilt, which I think will be done very soon, as the owner of the defunct block has got the ability to replace it during the coming summer.

Now, friend Wilson, I know that I will have the sympathy of all our fraternity, and that stimulates me to try and do the very best I can under the very *unpleasant* circumstances. *May it be long before another member of the National Photographic Association is called to pass through the ordeal of fire.*

I am afraid I shall have to forego the pleasure of meeting my craftsmen in Buffalo in July, as I was anticipating. Such is life.

Respectfully,

J. C. POTTER.

We admire the pluck of our friend, and it will not be long before he is prospering again. Such men do not stay down long. Mr. Dow, photographer at Ogdensburg, N. Y., was also burned out about three weeks ago by a large conflagration in that city. In none of these cases did the fire originate in a photographic gallery. Insurance companies please take notice.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*Carbolic Acid as a Cure for Streaky Plates. —Glycerin in the Nitrate Bath—Mosaics.*

—My friend, Dr. Anthony, an able and zealous amateur, sends me some details of a remedy for streaky plates, which he has found very efficient. He says:

"During the past summer I was so much annoyed by 'streaky plates,' evidently caused by the pressure of organic matter, that I thought it a good opportunity for working out the value of what had been suggested as a cure for this evil, viz., the addition of carbolic acid to the bath. I proposed to determine carefully, not only the quantity of the material required to produce the desired effect, but also the point as to whether the addition of this agent affected the qualities of the bath in other ways; that is, whether it modified the character of the deposit in the formation of the image; whether it made it 'hard' or 'soft;' and lastly, whether it acted as an 'accelerator,' or the reverse.

"Questions of this kind need care and patience. I brought these to bear upon a number of experiments, which I need not detail; suffice it to say that I arrived at the conviction that carbolic acid cured the tendency to streaks, while I could not make out that it deteriorated the bath in any way; but I found that occasionally I had to add a considerable quantity of carbolic acid before the obnoxious streaks ceased to be produced, as much as thirty drops to a pint of bath.

"Now came a curious phenomenon. The bath loaded with ether and alcohol had to be boiled, which was done in a bottle placed in a saucepan of water over the fire, in the usual way, and for about the usual time; the bath fluid so treated became as brown as mahogany, and no amount of filtration modified this color; there was no muddiness, but the appearance was startling, and I was not hopeful as to the capabilities of this very suspicious-looking material; but I was agreeably disappointed at finding that my plates from this curious bath were perfectly satisfactory, and continued to be so till it broke down in the usual way from

becoming poor in nitrate of silver and rich in iodide.

"The practical point which we arrive at, then, is, that these streaks occur in a bath to which the usual quantity of nitric acid has been added. Carbolic acid may be used freely with the happiest effects."

*Improved Character of Negatives from the use of Glycerin in the Bath.*—The use of glycerin in the nitrate-bath has often been recommended as a means of keeping the plate moist during long exposure, and in some cases increased vigor in the negative has been found to result. Dr. Anthony has noticed another peculiarity which is worth recording. He observes:

"I added glycerin to my bath for the purpose of keeping the film moist in long exposures, and so preventing local and uneven action of the developer. I was not happy in this, but it brought out a series of phenomena which I recognized as peculiar; that is, comparing with plates sensitized in a bath of the ordinary constitution, those from the bath containing glycerin manifested the following characters: Development pushed to excess showed a remarkable freedom from deposit in the shadows, with an absence of the 'hard' character induced by this 'forcing' system. The plate had a wonderfully bright look by reflected light, but there was nothing metallic, no spangles or appearance of reduced silver; on the dried plate the film had a light buff color, not altered by varnishing, while, by transmitted light, the deposit was amorphous, and freer from hardness than would be expected from the conditions of under-exposure and over-development.

"My experiments would seem to show that glycerin added to a bath does much more than keep a plate moist; it has in itself the power of materially modifying the character of the deposit forming the image, and of this peculiarity, which, so far as I know, has not hitherto been described, I have thought right to preserve examples, to show to any one who may be interested in the matter."

*Mosaics.*—Before concluding these notes, I must avail myself of the opportunity of congratulating you on the excellence of *Mosaics* for 1873. Each year seems better than the last, if such a thing were possible. It is a circumstance worth noting to find the number of able contributors to such a work increasing, and the photographic community at large should be at once proud and grateful to possess such an army of workers and thinkers ready to aid their brethren with the results of their experience; whilst to the Editor it must be a matter of deep gratification that the *elite* of the photographic profession with one accord send to him from their treasuries things new and old, all valuable, to be distributed, through his agency, over the whole photographic world.

## GERMAN CORRESPONDENCE.

*The Vienna Exhibition—How to Make Starch Paste.*

SUMMER is coming, and with it the Vienna Exhibition, and when you see this letter, many of my American friends will already be preparing for the voyage. They may feel sure of a hearty welcome here in Germany, as well as in Vienna; they will have an opportunity to see a beautiful city with beautiful surroundings, and particularly they will witness a conflux of people and a vast collection of the products of the industry of Eastern Europe. Vienna belongs already to the East. It forms the rallying-place for Germans, Hungarians, Slavonians, Poles, Roumanians, and numerous other tribes, of which the Americans rarely hear the name. To this will be added representatives of the far-away people of the Orient and Asia, such as Armenians, Circassians, Turks, Assyrians, Persians, &c. There will be a confusion of languages, similar to that at the building of the Tower of Babel. I have, so far, no general idea to what extent the people of Western Europe will participate, the English, French, Spanish, and the people of the United States. Germany, of course, will be splendidly represented. The branch of photography is represented by one hundred and thirty-five exhibitors. Portraiture is very fully represented amongst these, the other branches but partially. It is particularly to be regretted that the extensive establishments for the reproduction of oil paintings will only be represented by two exhibitors.

The number of Austrian photographers exceeds the German number, while England will send but few; so far but twelve names have been announced, and the same may be said of France.

Although the buildings are constructed on a most gigantic scale, still they are insufficient to accommodate all. Photography had to take refuge in an out of the way place, and even then it had to share the space with musical instruments. You can please, therefore, the eye and the ear both at the same time; but very often you will hear but poor music, which will annoy you and spoil the pleasure of examining the photographs. Still photography is much better off than German art—I mean painting and sculpture. These will, perhaps, not be represented at all, unless circumstances should change in the meantime. The German artists are dissatisfied with the space allotted to them, the more so as to the French artists more space and better light is granted. The German artists have under these circumstances resolved not to exhibit at all, and I learn that the German artists of Vienna have joined in this resolution. You see that it is sometimes well that photography is not classed amongst the fine arts, otherwise our exhibition at Vienna would be at an end before it has begun.

But another branch of the German exhibition will fail for want of room: it is the exhibition of the products of German art industry of all centuries. The finest furniture, porcelain ware, works in metal, tapestry, and woven fabrics, had been selected for this purpose. It would have been a splendid museum of arts, instructive to all, particularly to the photographer. The want will not be felt in Vienna on account of the abundance of other materials. Still every lover of art will regret it.

In one particular the Vienna Exhibition is ahead of all others: this is the number of medals. There is a medal of progress for those who have improved since former exhibitions; then there is a medal of merit for technical advantages; then we have a medal for taste for those who exhibit good taste in their works; and, finally, a diploma of acknowledgment will be distributed. A photographer, you see, may receive two medals; for instance, one for merit and one for taste, &c. I am curious to learn the result. Unfortunately, the interest of our German photographers is so entirely absorbed by the Vienna Exhibition that there is hardly any prospect that our photographers will be represented at Buffalo.

Some of the readers of your excellent *Philadelphia Photographer* desire to know how we make our paste. This is done in the following manner: Starch is rubbed up very smoothly with a *very small* quantity of cold water, and stirred well until the mass is perfectly homogeneous; boiling water is added, very gradually, until the paste becomes thick; the mixture, however, must be stirred well all the time, and the addition of water should be stopped the moment that thickening commences. When the water is not hot enough the thickening will not take place. The process may be reversed, and the starch, after being rubbed up with water, may be added to boiling water, the mixture being stirred until it becomes thick.

I learn just now that the Vienna Society of Artists has offered to the German artists the space allotted to them in the exhibition building. It is possible, therefore, that the German art exhibition will take place after all.

Yours truly,

Dr. Vogel.

## OUR PICTURE.

The porcelain picture, well made, has always been a subject of great admiration, because of the softness which it possesses, without any loss of brilliancy or roundness. Since its introduction, by means of the collodio-chloride process, the invention of our esteemed correspondent and co-worker, Mr. G. Wharton Simpson, many efforts have been made in as many directions to imitate its good qualities in the paper print. Thus we have the mezzotint, the double negative, the reversed negative, the "stumped" negative, and so on, and, last of all, the Denier (Russia) picture, described in our last number by Dr. Vogel. We have still another method, however, and present a specimen picture made by the means of that method, in our present number, from the studio of

Mr. W. H. Jacoby, Minneapolis, Min., the inventor of, not a process, but of a very ingenious printing-frame used as we shall presently describe. He calls it his "Imitation Porcelain and Combination Printing Frame," and it consists substantially of all the parts of an ordinary pressure-frame with a self-adjusting spring-bed, clamping springs, and vignetting attachment, &c., and it is at once an ordinary printing-frame and a porcelain printing-frame combined For printing the imitation porcelain pictures on paper, the sensitized sheet is held tightly in place by means of springs, upon the cushion of the frame, and when the frame is closed the paper and negative are in close contact, in which condition the picture is printed, say three-fourths. By a novel contrivance of springs, the paper and negative are now separated about an eighth of an inch, the printing finished, and the result is the soft porcelain effect shown in Mr. Jacoby's picture. The example tells the story so plainly that we need hardly add more, yet there are a few of the objects attainable by the use of the Jacoby frame that it may be well to point out especially. Any negative may be used without special manipulation; the time required to print is the same as by the usual method; negatives used in this frame need not be so elaborately retouched as those used in the ordinary way; it adjusts itself to any thickness of glass; it is a complete porcelain printing-frame; the porcelain effect may be obtained in all weathers, without waiting for sunshine, as is required by some of the processes named above. We have made some experiments with it, and find it easily worked, and the results very satisfactory and pleasing. In fact, we consider it the easiest and best method of securing the coveted softness in paper prints, so that those who have so long been desiring "lovely softness" as against "cast-iron hardness," may now secure it without any loss of detail in the shadows or the metallic appearance of the mezzotint and Denier pictures.

The negatives and prints were made by Mr. Jacoby, on Trapp & Munch paper. This paper is so well known in the market, and so favorably, thanks to the efforts of Mr. Willy Wallach, the agent, that we need not praise it here. Mr. Jacoby desires us to call attention to the fact that some of the prints may appear slightly yellow. This is no fault of the paper used or of his printing, but is owing to the unfortunate color of the mount chosen, which does not seem to be the proper one for vignettes.

The mounts are very beautiful, however, and were gotten up for us by Messrs. A. M. Collins, Son & Co., Philadelphia, are known as their No. F. 14, and are supplied on all colors of card, glazed and plain.

The pictures were burnished by the Weston Burnisher, in order to show our readers the new effect obtained by that means.

Further particulars concerning the frame may be had by referring to the advertisement, or by addressing W. H. Jacoby, Box 1758, Minneapolis, Minn.

# Editor's Table.

We have received examples of excellent photography from Messrs. J. P. Calvert, Abell, J. McClure, J. W. King, ——, operator for Mrs. Raimheld, and K McKinnon, all showing admirable progress on the part of the gentlemen named. We wish our space would allow us to notice them in detail. Also the following: From Messrs. Slee Brothers, Poughkeepsie, N. Y., several prints from negatives of the old veteran photographer, Mr. S. L. Walker, which are capital; from Mr. Frank Jewell, Scranton, Pa., a number of prints from excellent negatives. A specimen of Mr. Jewell's work will appear in our next number. From Mr C. E. Orr, Sandwich, Ill., some fine cartes, including one of a corpse, excelling anything we have seen of the kind. Mr. Orr will give us his method of taking such pictures in our next issue; from Mr. J. M. Capper, Troy, N. Y., a number of beautiful pictures of children, and some monogram cameo medallions, which latter are a specialty with him and find a great demand. His idea of printing on the monograms of the parties is good and the results are neat. From Messrs. Fosnot &

Hunter, Keosauqua, Iowa, examples of various classes of work. Mr. Fosnot is young in the art and promises well.

Mr. G. Frank E. Pearsall, Brooklyn, N. Y., has sent us some admirable cabinet portraits, which are fully up to the standard of American photography. Such work causes us to rejoice, and the more because we are promised negatives by Mr. Pearsall for a future number of our magazine. Mr. H. J. Rogers, Hartford, Conn., sends us a variety of pictures, large and small, toned without gold, by the method which he describes elsewhere in the current number. They are, in our estimation, fully equal to gold-toned prints. As to the new toning bath being as economical as it is novel we are not prepared to say. Mr. Rogers also sends us a copy of a work of which he is the author, entitled *The People's Guide to Photography*. It gives a brief history of the art; many useful hints to sitters; a great quantity of amusing and entertaining anecdotes, all being amply illustrated. It is altogether a novel and instructive book.

Mr. John A. Todd, Sacramento, Cal., has sent us a fine collection of photographs of race-horses, cows, sheep, &c., which rival the work of Messrs. Schreiber & Son. They are remarkably well taken, and do him great credit. Among the pictures we notice those of Goldsmith Maid, Nelson, Defiance, Nettie Brown, Lucy, Occident, Norfolk, Boneta, and many others. One of the no-horned cow Lone, and calf, is a beautiful picture, and must have been taken very quickly.

From Mr. H. T. Payne, Los Angeles, Cal., we have some most interesting views, from Godfrey's negatives, of Southern California, including a collection of the old, quaint mission buildings, whose massive architecture makes such beautiful pictures for the stereoscope. The catalogue embraces over one hundred and fifty subjects.

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Items of News.—The negatives from which the picture of Dr. Vogel, in our January number, were printed, were made by Mr. Julius Schaarwachter, a pupil of Dr. Vogel's, and not by Loescher & Petsch. Mr. J. W. Black, of Boston, made us a hasty visit on the 7th instant. He accompanied Dr. I. I. Hayes, the Arctic explorer, managing the lantern exhibition of views in the polar regions. The lecture and the exhibition both were most entertaining and instructive. Mr. James L. Forbes, the well-known manipulator, has engaged with President Bogardus, where he may be addressed. Mr. H. L. Bingham, Kalamazoo, Mich., offers his gallery for sale, ill health compelling him to seek a Southern climate. He has been making the best of work, and agrees to give a bargain to a prompt purchaser. The edition of Dr. Vogel's Handbook and of Trask's Practical Ferrotyper are almost exhausted; soon they will be at a premium.

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Caution.—Mr. C. E. Wallin, Fort Wayne, Ind., desires to caution photographers against one H. C. Jordan, hailing from Kansas, Ill. Address Mr. Wallin for particulars.

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The Sensitized Paper Co., Portsmouth, O., urge upon photographers the advantage of using their ready sensitized paper. Give it a fair trial.

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Messrs. Claxton, Remsen & Haffelfinger, the eminent publishers of this city, have just occupied their new and beautiful store, at Nos. 624, 626, and 628 Market Street, where they have one of the most extensive establishments devoted to books and stationery in the country. The publication of several new books was simultaneous with their opening of the new store, a number of which are before us, as follows: "Hemlock Swamp, and a Season at the White Sulphur Springs," by Elsie Leigh Whittelsey, is a charming romance of that enchanting section of Virginia named in the title; "Rouge et Noir," a translation of Edmond About's tale (of Baden-Baden) of the same name, and "Dolly's Resolutions," by Hannah Maria. This latter work is worthy of more than special mention. It is but the simple story of a little, impulsive girl trying to do right, yet it is told in such a natural, easy way as to make it delightful and entertaining. The authoress has ingeniously mosaicked a series of letters from abroad in her work, which renders it all the more charming and makes one constantly apply to his stereoscope and stock of views to verify the fresh descriptions here given of places and things, and to have them verified by the letters of "Aunt Annie." If this is the first effort of the fair authoress, there is a bright future before her if she but holds to the winsome, natural style of "Dolly's Resolutions." We have to thank the same gentlemen for copies of Harper Brothers' beautiful *Household Edition* of "Dickens's Works," elegantly illustrated; of "Turning Points in Life," by Frederick Arnold; of "To the Bitter End," by Miss Braddon, and of Edward Bulwer's "Godolphin," all of which are for sale by Claxton, Remsen & Haffelfinger.

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Copying by Artificial Light.—Mr. Wm. H. Rhoads, No. 1800 Frankford Avenue, Philadelphia, has shown us some excellent copies made by aid of the oxyhydrogen light, which are far ahead of many made by sunlight; a great deal of the coarseness usually seen in such pictures being entirely overcome. We congratulate him on his success in this direction.

MR. ANDERSON'S "LOW SALTED" COLLODION FORMULA.—We have several communications on this subject, but our crowded columns compel us to lay them over with many other good things until our next number.

PHOTOGRAPHY IN BALTIMORE.—We recently made a hasty call upon several of our subscribers in Baltimore, and found them all cheerful and busy. Mr. N. H. Busey had just occupied his new art gallery, and now uses the whole building. He is doing a prosperous business, and doubtless takes the lead. Mr. J. Holyland is making excellent work and doing a good business. Mr. T. P. Varley had just returned from a successful tour with his magic lantern, in which branch he is an adept; Mr. W. F. Shorey was making artistic work, and Mr. E. G. Fowx we found as enthusiastic as ever over his porcelain process. Mr. Walter Dinmore is about to engage in photography again, in a newly fitted-up gallery on N. Charles Street. Photography seems alive in the Monumental City surely.

BALTIMORE, Feb. 20th, 1873.

NOTICE.—The copartnership heretofore existing between the undersigned is this day dissolved by mutual consent. Charles A. Wilson will hereafter continue the business on his own account, at No. 7 N. Charles Street.

WALTER DINMORE,
CHARLES A. WILSON.

PHOTOGRAPHS FOR VIENNA.—The specimens of photographic portraiture from the gallery of Mr. William Kurtz, intended for entry and competition at the Vienna Exposition, were on exhibition for several days at the rooms of the Artists' Association "Palette," N. Y., and attracted much attention. The specimens are one hundred and eight in number, representing all of the different styles of pictures known to photography, which include plain photographs, portraits from retouched negatives, and heads in crayon and on porcelain. A crayon head of the late Professor Morse was esteemed particularly commendable. The several specimens are arranged in an ebony frame of rare design and workmanship.

THE DAILY GRAPHIC is the title of a new evening paper, illustrated, published in New York. Photolithography is used as the means of producing the pictures, and in a future number we shall have more to say about them.

THE BRITISH JOURNAL PHOTOGRAPHIC ALMANAC, for 1873, has been received from the publishers, and from Messrs. E. & H. T. Anthony & Co., New York. It is full of useful articles as usual, contains a cabinet photograph by Sarony, and no photographer should miss possessing it. The supply is limited. Copies for sale at this office for 50 cents; mailed free to any address on receipt of price, by Benerman & Wilson.

THE YEAR-BOOK supply for 1873 is being rapidly exhausted, and photographers should secure it at once.

MORE ENTERPRISE.—We are requested to print the following:

TILFORD'S ST. LOUIS PHOTOGRAPHIC WAREHOUSE, ESTABLISHED 1848.

ST. LOUIS, March 13th, 1873.

E. L. WILSON, ESQ.

DEAR SIR: As a matter quite important to us and perhaps somewhat interesting to photographers, we would advise you and your readers that we have this day bought the stock and goodwill of W. H. Tilford, Esq., of this city, and shall take possession in a short time. As we understand it, Mr. Tilford has not more than one or two seniors in the business, if indeed there are any besides Mr. E. Anthony, who have been in it as long as he has, and therefore the retirement of the old "veteran," though a young man comparatively, is an era in the business, and may serve to call up reminiscences among many of the readers of your Journal. We are aware that we have a task before us to keep up the reputation of this long-established house, and will do all we can to succeed. Our Mr. Hyatt will remove to this city, and take charge of the business as soon as possible.

Respectfully, GATCHEL & HYATT.

Surely with headquarters in the three great cities of the Southwest, these gentlemen must have great resources at their command, and be prospering finely. We always rejoice in photographic development, and wish them continued prosperity.

MR. T. HICKS, Swansea, England, has sent us some exquisite photographs of children, and some beautifully posed and lighted cabinet pictures worthy of high praise.

LANDSCAPE WORK.—Scovill Manufacturing Company send us a magnificent view of the Grand Central Railroad Depot, N. Y., made with a 4½-inch focus, Morrison lens. It is a remarkably fine picture made by a remarkably fine lens. Mr. E. H. Train, Helena, Montana, has favored us with some fine views of that city. From Mr. J. C. Potter, Elyria, Ohio, we have some beautifully taken snow views, which are capital. From Mr. J. K. Bundy, New Haven, Conn., some interesting stereo views beautifully taken.

# HANCE'S
# Ground Glass Substitute.

THE PIECE OF GLASS ATTACHED IS COATED WITH

## Hance's Ground Glass Substitute.

The SUBSTITUTE is in the form of a varnish; is flowed and dried the same as varnish, but dries with the granulated surface as shown above.

**WHEREVER GROUND GLASS IS REQUIRED,**
***HANCE'S SUBSTITUTE ANSWERS EVERY PURPOSE.***

FOR GROUND GLASSES FOR CAMERAS,
FOR GLAZING SKY-AND SIDE-LIGHTS,
FOR OBSCURING STUDIO AND OFFICE DOORS,
FOR PRINTING WEAK NEGATIVES,
FOR VIGNETTE GLASSES,
FOR A RETOUCHING VARNISH,
FOR SOFTENING STRONG NEGATIVES,

FOR THE CELEBRATED ***BERLIN PROCESS.***

[For the Berlin Process, see the first page of the March number of the *Philadelphia Photographer*, 1873.]

## Use the "Substitute." Use the "Substitute."

PRICE, FIFTY CENTS PER BOTTLE.

**LARGE QUANTITIES FOR STUDIO LIGHTS, &c., AT A DISCOUNT.**

READ A FEW TESTIMONIALS:

YOUNGSTOWN, Ohio, Jan. 27, 1873.

A bottle of Hance's Ground Glass Substitute came safely to hand. I selected a good piece of glass, coated it with the [illegible] and in a few moments I had one of the finest ground glasses I ever saw. I have been using it four or five days, and the more I use it the more I am pleased with it. The "surface" is fine and delicate, and a great relief to the eyes. I would not be without a bottle for ten dollars.

LON BLACKBURN, Operator, Le Roy's Gallery.

R. NEWELL & SON'S GALLERY, 626 Arch St., PHILADELPHIA, Feb. 17th, 1873.

I have been frequently asked to recommend some new article or preparation used in our business, but have very rarely consented to do so from the fact that many things that "*promise* very fair," after thorough trial, prove worthless. Having used your different preparations of Collodions, Intensifiers, and Varnish for the past six months in my gallery, I can conscientiously recommend them *first-class* in every respect. Your *Ground Glass Substitute* I consider one of the most *practical* and *useful* articles I have ever used, and no photographer who has learned its value for coating the backs of thin negatives, or making ground glass for the camera box, would ever be without it. I have found so many ways of using it to advantage that I shall hereafter order it by the gallon.

Yours truly,
R. NEWELL.

(OVER)

# HANCE'S PHOTOGRAPHIC

# SPECIALTIES

ARE SOLD BY [illegible] AS FOLLOWS:

**Elbert [illegible] Collodion,**
Per pound [illegible] pound, 80 Cts.

**Hance [illegible] Collodion,**
Per pound [illegible] half-pound, 80 Cts.

**Curt[illegible] llodion,**
Per pound, [illegible] -pound, 80 Cts.

**Hance's Peculiar Portrait Collodion,**
Per pound, $1.50.....Half-pound, 80 Cts.

**Trask's Ferrotype Collodion,**
Per pound, $1.50.....Half-pound, 80 Cts.

**Cummings' Grit Varnish,**
Per Bottle,.....40 Cts.

**Hance's Silver Spray Gun Cotton,**
Per Ounce,.....50 Cts.

**Hance's Delicate Cream Gun Cotton,**
Per Ounce,.....80 Cts.

**Gill's Concentrated Chromo Intensifier,**
Per Bottle,.....50 Cts

**Hance's Ground Glass Substitute,**
Per Bottle,.....50 Cts

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**TRADE MARK.—THE BEST GOODS—FULL MEASURE.**

TRY HANCE'S PHOTOGRAPHIC SPECIALTIES.

See Testimonials in former and future advertisements.

SCOVILL MF'G CO., Trade Ag'ts.
NEW YORK.

ALFRED L. HANCE, Manufac'r,
*126 N. 7th St., Philadelphia*

*W. H. Rhoads, Photo.* *Philada.*

THESE

## SPECIMEN PRINTS

Are from negatives reproduced from the original card size negative by Edwards' new method of Enlarging and Multiplying Negatives. Photographers will find this process to open up a new business for them.

THE

## EDWARDS' PROCESS

May be used for making a large negative from a small one; for reproducing negatives in any quantity; for lantern slides; for making a good printing negative from one too strong, &c.

**READ THE ADVERTISEMENTS AND TESTIMONIALS.**

THE

# Philadelphia Photographer.

Vol. X. MAY, 1873. No. 113.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## THE STUDY OF ART.

It has been extremely gratifying to us to see the interest taken by the Chicago Photographic Association in Mr. Baker's article, "De Legibus," found on page 29 of *Mosaics*, 1873, an article intended to arouse the interest of photographers on the subject of art principles. It is a healthful sign to see photographers awakening on this important subject, and while some of the utterances of our Chicago friends are entirely erroneous, still we are glad to see them state what they know, and at least show that much interest. Now, if they will only not fall asleep, but study up authorities on the subject, who can tell what great and good results will follow from the discussion of Mr. Baker's article, "De Legibus?" This same knowledge of art principles and rules and laws is what our photographers want now more than anything else, and we do hope they will give it attention continually.

## The Future of Photography to be in the Hands of the Gentler Sex.

The "young ladies" (of variegated ages) now being taught the mysteries of photographic manipulation by Prof. Hecker, at the Cooper Union in New York, about one hundred in number, are making rapid and satisfactory progress, and in due time we shall have them either opening studios of their own, or seeking employment through our "situations wanted" column.

This fact, taken in connection with the more remarkable one that during the month of March, in this city alone, four photographers were presented each with *a daughter*, the birth of one quickly following the other, seems to make the apprehension arise that the photography of the future is to be in the hands of the gentler sex. If there is anything in the "signs of the times," this assertion is entitled to some credit. We like to look ahead any way, and are always willing to employ female labor wherever it can be made available. We congratulate three-fourths of the "fathers of photography" engaged in this juvenile enterprise, and wish them much comfort and profit in their investment. The other fourth interest is our own.

## THE EXHIBITION.

REGULATIONS AND ARRANGEMENTS.

The Fifth Annual Exhibition of the National Photographic Association of the United States will be held in the Rink at Buffalo, N. Y., beginning Tuesday, July 15th, 1873.

The meetings of the Association will be held in the same city, at hours to be hereafter announced.

The meetings of the Association will be free to members.

Regulations for those not members will be supplied hereafter.

A cordial invitation is given to *all* photographers abroad and at home, whether members of the Association or not, to exhibit of their work, and space will be provided *free of charge.*

Space *must* be applied for at least twenty days beforehand, that the Local Secretary may know what wall-space to provide.

The name and address of the exhibitor must be on each picture, or supplied, so that it may be conspicuously placed among his contributions.

Two complete lists of each lot must be sent to the Local Secretary, with date of shipment by mail; and where a party sends more than one package the packages should be numbered, both on the packages and on the lists.

The Committee of Arrangements will reject any articles that are deemed improper for exhibition.

No articles will be permitted to be withdrawn until the close of the Exhibition, without a permit from the committee in charge.

Excellence and novelty should be the first considerations in selecting pictures for the Exhibition.

### DIRECTIONS TO EXHIBITORS

*At the next Annual Convention of the National Photographic Association, to be held in Buffalo, N. Y., opening July 15th, 1873.*

1. Estimate about the wall-space required for your work, and send, early, the computation thereof to W. J. Baker, Local Secretary N. P. A., Buffalo, N. Y.

2. Inquire of your express agent the time required to forward a box from your place to Buffalo, N. Y., and send so that it will arrive here not before the 12th of July next, nor after the 15th.

3 At the time of despatching your box, mail a descriptive invoice of the same to W. J. Baker, Local Secretary N. P. A., Buffalo, N. Y., and place a duplicate of the invoice in the box itself.

4. (*Very important.*) PREPAY ALL CHARGES.

5. Screw each frame on to two cleats, and also fasten the cleats to the sides of the box with SCREWS.

6. Fasten the lid with screws; use no nails for this purpose.

7. Put your name on the back of each frame, or place your card under the glass in front.

8. Put your name on the bottom of the box inside.

9 Direct the box to W. J. Baker, Local Secretary N. P. A., Rink, Buffalo, N. Y., and on the inside of the lid put your own name and address.

10. You can easily see how mistakes and much confusion will be avoided by strict adherence to these instructions in every case.

11. Pray follow them.

Articles for exhibition will be received at the Hall from July 7th; not earlier.

Arrangements with express and railway companies are being made for a commutation of fares and freights, and the result will be announced in a circular, to be issued in due season.

The list of hotels will also be given in the circular, and their rates.

A copy will be sent to all photographers who can be reached. Those who do not get it, may have copies by applying to either the Permanent or Local Secretary.

W. J. BAKER,
Local Secretary, Buffalo, N. Y.

EDWARD L. WILSON,
Permanent Secretary, Philada.

## EXPERIMENTAL.

### MR. ANDERSON'S HIGHLY IODIZED COLLODION AND WEAK BATH.

WHEN my February number of the *Photographer* came to hand, I read an article therein which is so entirely at variance with the orthodox system of photography, and the results claimed so different from the results of experiments made by me some years ago, that I have been induced to again experiment agreeably to the invitation of Mr. E. Anderson. The article I allude to is the one setting forth the merits of heavy iodiz-

ing, and decreasing the strength of the bath. I made nine negatives, and prints of each I inclose you, with a tabular statement of the experiments. I wonder if Mr. A. ever produced such prints? After I was through, it was suggested to me to use iodide and bromide equal parts, even as high as thirteen grains to the ounce. I shall try it. You will see by the table that I commenced with the usual formula—five of iodide and two and a half bromide—and have carried out the same ratio all through. While operating in Philadelphia my friends often laughed at me for experimenting so much; they held (and still hold) the opinion that experimenting is all bosh; but I like it, and if Mr. A. has any more formulæ to work out let him send them along. Here is the table.

| No. of Neg. | Iod. grains. | Brom. grains. | Bath. grains. | Expos'r. seconds. | Time of Develop't. seconds. |
|---|---|---|---|---|---|
| 1 | 5 | 2½ | 45 | 25 | 40 |
| 2 | 7½ | 4¼ | 45 | 25 | 40 |
| 3 | 10 | 5 | 45 | 25 | 40 |
| 4 | 5 | 2½ | 35 | 25 | 40 |
| 5 | 7½ | 4¼ | 45 | 25 | 40 |
| 6 | 10 | 5 | 35 | 25 | 40 |
| 7 | 5 | 2½ | 25 | 25 | 40 |
| 8 | 7½ | 4¼ | 25 | 25 | 40 |
| 9 | 10 | 5 | 25 | 25 | 40 |

You will see that I timed both the exposure and development as to the degree of intensity; the prints will show for themselves; the object was not moved during the whole time of making the negatives. Are not the prints beauties? While I am writing I would like to know how Mr. Newton makes only one hundred and thirty-five grains of chloride of gold out of a five dollar gold piece A five dollar piece weighs about one hundred and twenty-nine grains, and ought to make nearly two hundred and two grains of chloride.

I came near forgetting to say, that I have always found that the transparent lines or "river marks" are caused by overiodizing, and when they appear they can invariably be removed by adding cotton; if this makes the collodion too thick, add a little ether and alcohol; another remedy is to add silver to the bath, but if the latter is about the right strength, the first remedy is a certain cure. I have written this "cure" on the wall of every dark-room I have worked in, and in all cases operators have audibly smiled upon reading it, but I never knew them to try it and fail.

C. D. Shrieves.

Norwalk, Ohio.

Our correspondent has varied his collodion and bath, but forgotten to change his developer also. We submitted his proofs and communication to Mr. Anderson, who very correctly answers as follows:

Without going into a detail of the gentleman's experiments, I will simply call your attention to prints 1, 4, and 7. By reference to his letter we find them all made with the *same* collodion; No. 1, made in bath of 45 grains is the *worst*, No. 4, in 35 bath is better, whilst No. 7, in only 25 grains is by far the best, the white of the vase being full of detail. Now we gather from this, that the weak bath has produced the best print in the *same* time, thus saving (according to his own showing) more than one hundred per cent. silver. His neglect to allow the complete decomposition to take place I don't consider; that's *his* fault and not the bath. I have shown the prints to a dozen persons *without comments*, and all pronounced at once that No. 7 was the best—*good*. The gentleman, according to his statement, iodized 5 grains iodide ammonium to 2½ bromide cadmium. Well, *this* is wrong to begin with. Now let him try again with the following formula. Commence with a bath of 30 grains, almost saturated with iodide—*this is important*—and very acid with nitric acid; let him increase the acid gradually:

Collodion No. 1.

Iodide of Ammonium, . 5 grains to the ounce.
Bromide " . . 3 " "
*Parys'* Cotton, . . . 5 " "
Ether, 4 parts; Alcohol, 3 parts.

This collodion *alone*, is *perfectly worthless!*

Collodion No. 2.

Iodide of Cadmium, . 7½ grains to the ounce.
Bromide " . . 4½ " "
*Parys'* Cotton, . . . 5 " "
Ether, 4 parts; Alcohol, 3 parts.

Preparation.

Dissolve the iodides in the alcohol; add the ether; add the tincture of iodine to turn *very* red; filter perfectly clear; add cotton;

shake and let settle *perfectly* clear, say in three or four days.

| | | |
|---|---|---|
| Mix of No. 1, | . . . | 1½ parts. |
| Mix of No. 2, | . . . | 4 " |

Now pitch in!

My bath is 22 grains and collodion 14 grains, and working splendidly.

ELBERT ANDERSON.

We shall be glad to show Mr. Shrieves's interesting prints to any anxious inquirer.—ED.

## PHOTOGRAPHIC MINCEMEAT.

### No. 12.—REDEVELOPING AND STRENGTHENING.

THE importance of knowing something of these points is fully appreciated by the practical man, and they are entitled to full consideration upon the part of any one attempting to give written instructions for the production of photographic pictures. Hence, this paper. Redeveloping is a repetition of the original, or first, developing, and can only be done *by the use of the same ingredients*. The most simple way is as follows: After developing fully, wash the plate thoroughly, both front and back. Now, examine it, and if it has the appearance of an *underexposure*, but otherwise good, *redeveloping is the best resort*, unless there is a chance to improve it by another sitting. There are circumstances that often prevent this; and then it is that we want to know how to improve the best we have. Proceed as follows: *Before fixing*, place it upon the dipper, and immerse it in the bath solution, leaving it there but a short time. Then withdraw it; let it drain until the stream stops, and the drops are not too close together; then carry it to the developing-dish, and flow over it the developing solution, as at first. This method affects the shadows as well as the lights, and often saves a negative that gives very satisfactory and pleasing effects. It can be repeated several times, if desired, provided care is had in the manipulation.

Do not understand me to say that this method is always successful. I simply say that it is redeveloping, and is, at times, attended with complete success. This fact alone is worth the trial, even if, at other times, the success is only partial, and may result in complete failure. There being nothing to lose and much to gain, in the saving of a sitting, that cannot be repeated, *we are induced to try* what does sometimes succeed. So much for redeveloping. Strengthening is of a different nature, and is only to be used to improve the printing qualities of a fully exposed and a fully developed negative. In other words, a complete negative in all respects, except it may have a lack of density. After well washing front and back, examine as before, and if you find that you have a negative as described, pour enough pyrogallic acid solution into a small, clean bottle, to cover the plate, into which pour a few drops of a twenty-grain solution of nitrate of silver; shake it a little, and pour it on and off the plate, examining, by transmitted light, each time, in order to know just when to stop, for be it remembered that there is a chance of carrying this too far. When the desired point is reached, throw the mixture in the wash-tub, wash the plate, and pass it into the fixing-tub. The pyrogallic acid solution is mixed as follows: Dissolve 24 grains pyrogallic acid in 18 ounces of water; to which add 12 grains citric acid. When both acids are dissolved it is ready for use.

Thus far we have prescribed medicine for only two classes of negatives. There is still another class which may need doctoring, and we will give the remedy. There are times when our only chance results in an *overexposure*, and we would be desirous of saving it. *Sulphuret of potass* is the best that I know of. It is applied only *after the negative is fixed and well washed.* The strength is quite unimportant. *It need not be fresh mixed.* Dissolve a lump of it in, say, 4 ounces water, stop it tight, and it will keep for a long time. As long as it retains a greenish color it is all right. When it becomes clear, like water, throw it away, and prepare a fresh supply. *It is flowed over the negative while wet*, and can be carried to various degrees. It improves an overexposed negative by rendering the shadows more transparent, and increasing the density of the lights. In case it is too strong,

add water, or, what is better, pour out a little of it, and dilute with water. When properly handled, this solution makes beautiful tones on transparencies. There are other methods for intensifying negatives, which may appear in future "Mince Meat."

I. B. WEBSTER.

## THE BIGELOW ALBUM.

NEW PICTURES AND A NEW KEY.

THE encouragement given to this really excellent work, both at home and abroad, has induced Mr. Bigelow to make a series of new studies for the Album, and to write a more extended "Key" to their production. The publishers have likewise adopted a new plan of manufacturing them, which will add to their strength and beauty.

Orders are constantly being received for them from English and German dealers, and at home also they seem to be held in high esteem. We cannot see how any photographer, good or bad, can fail to be much benefited by a careful study of Mr. Bigelow's Album.

## FRAUDS AND IMPOSITIONS.

OUR country seems infested again, at the present time, with all sorts of attempted frauds and impositions upon the photographers. From all sides we hear of those who are offering matters for the purpose of obtaining money from our craft, who give no real substantial equivalent. There is only one way for you to act when such things are offered to you. If you know nothing about the matter offered, or the parties who offer it, your safest way is to treat all with suspicion. You need not fear that if you do not purchase your neighbor will do so, and thus get the advantage over you. In the majority of cases, whoever purchases is the one upon whom the laugh comes ultimately. We will thank our readers to apprise us, as many have already done, of anything offered to them which seems illegitimate or wrong, and we shall do all in our power to break up the same, or at least prevent imposition upon our readers.

And in this connection we desire to say that *no party or parties whatever* have any authority to use our name as reference in any circular, poster, or otherwise, in favor of any article or articles whatever. We are compelled to state this by a firm entitled "O. P. Howe & Co., Augusta, Maine," who use our name among their "references" without any permission or authority from us, a piece of presumption we feel called upon to denounce. We know nothing of the said firm, or of their responsibility, neither have we any practical knowledge of the goods they sell. Please give no credit to their circular on account of our name being thereon, or to any other.

## PATENTS AND PATENT RIGHTS.

THE *patent* business seems also to have revived, and we are receiving letters from many of our subscribers asking "what shall we do," or "what is best to do about it?" Now you might as well write us and say, "We are sick, what shall we take?" as to write us as many do, in the matter of patents. "Circumstances alter cases," and in no case more emphatically so than in patent causes. Nearly all the patentees who have had litigation with photographers have *some* rights, but the most of them *claim* more than they have any right to. So that when we are asked for counsel in such affairs the inquirer should state his case fully in all its circumstances, so that we may judge whether or not he has infringed. If you do this we are willing to give you all the light we can, according to the knowledge we have ourselves. But remember we do not practice law, and cannot therefore give the attention to a case that it should have. Whatever service we *can* render you we are glad to do.

## THE PHOTOGRAPHER TO HIS PATRONS.

Now spring is at hand, the time is when all enterprising photographers should push their business with all their enterprise. Judicious advertising is good, and there is nothing better than our little leaflet, *The Photographer to his Patrons*. Send for a copy and examine it.

## The National Photographic Association as a Means of Instruction.

BY MRS. E. N. LOCKWOOD.

WHY cannot the Convention be made still more useful, and in a measure supply the need for a photographic school? There will probably be, as has been formerly, many there who would be glad to avail themselves of personal instruction in each branch of the art could it be obtained, and there are some parts of the business in which persons can improve themselves very easily if their mistakes are shown to them, and a few practical ideas given with illustrations, under the direction of a practising artist.

From my own experience I must own that I have learned more in an hour from a good teacher than I would have worked out in a year if left to myself and books. And I have good reason to believe there are many others whom it would benefit more to have an hour's instruction in some particular branch of the art, in which they felt themselves deficient, than in a year's practice alone, when they really did not know and could not find out wherein their troubles lie.

Since the last Convention I have visited about thirty galleries, and, of course, saw many things that seemed to me might be changed for the better; but lack of cleanliness and order was the most *prominent defect*, while the crude ideas some had of retouching were amusing in the extreme.

One gent remarked: "I don't retouch much; I can't bear to sit down in one place long enough to work up a negative, so I just take my negative in one hand, pencil in the other, and hold my negative up under the skylight awhile, then before first one window and then the other, and work that way, but, of course, I don't set myself up for a retoucher." *I did not think he did.* Many have expressed the wish to learn to retouch, but did not know where to go.

Some are trying to do it from what they have learned from books alone, but are making sad failures because they do not know what the reason is they cannot make them smooth.

I do not believe there are many but what would be glad to get new ideas in retouching if it would make them do better work and more of it.

Each day's experience proves to me that by a *judicious* use of the *pencil* and *thought* we can invariably please the most fastidious, and make more sales than otherwise. I have been thinking if it would not be well to procure a room, exclusively for a retouching school, at Buffalo during the Convention, and let any who may wish to receive any new ideas in the art bring with them their negatives and retouching-frames, &c., and arrange with artists who may be there, and are *good* (and will have samples of their own work, before and after retouching, on exhibition, proving their capabilities), to spend one, two, or more hours, as they may wish, each day to show them the best way to retouch.

One person can teach six pupils at a time as well as only one, keeping them all busy, each on their own negatives, which will serve as a good reminder of every word of advice given when they get back to their homes, and their work would so soon improve and business increase they would certainly feel thankful for spending time and money to attend the Convention.

Competent instructors may feel that they can't afford to spend their time that way when they would rather do something else; and I will admit it is not an enviable situation, but if love for the advancement of the art, and desire to do good to others, is not sufficient temptation, I will suggest that one hour be called a lesson, and that for such instruction the student shall pay one dollar, which is the usual price for painting and drawing. The teacher will take more interest and pains, and the pupil be more zealous to learn, and practice better, if they both feel the instruction is worth paying for.

And if, eventually, the Convention could continue in session two weeks or more, and during the time have a temporary gallery, where the art in all its branches could be taught, especially the making of negatives and lighting the face, to give not alone the finest effects, but the most *truthful* likeness, I believe such an arrangement would make the annual gatherings looked forward to with still greater interest and pleasure, and

would serve also to assist those who were needing just such help to lift them one step higher towards a successful future, and would be a still farther inducement for many to attend who never have, and do not really see what good it does to go.

I hope yourself and readers of the *Photographer* may deem these ideas worthy of further consideration.

## SHORT ARTICLES.

BY R J. CHUTE.

THE item of importance next to the writing of an article, or putting one's thoughts in print, is to have it read. Some of the best thoughts are woven into such a web of words that they are found by but very few. If the writers for our journals would condense their material it would be productive of much more good. The *Year-Book of Photography*, for 1873, is a model in this respect. From the pens of H. P. Robinson, Valentine Blanchard, Adam Salomon, Stuart Wortley, Walter B. Woodbury, and a host of others, we have *brief* articles; some of them not occupying a dozen lines, and but few of them more than a page. All our editor has said in praise of this annual is well merited, and its merit is in nothing more than in its *short articles*. So let us make our communications brief. If our thoughts are voluminous, put them in separate articles. Short articles are *sure* to be read, while long ones are postponed to "a more convenient season," and are, perhaps, never read at all.

## OUR PICTURE.

THE picture which graces our present number is a specimen of the handiwork of Mr. Frank Jewell, Scranton, Pa. Mr. Jewell is emphatically one of our progressive young photographers; a man thoroughly in love with and earnest in his chosen vocation; one who continually improves, and one of those to whom his share of the future of photography may be safely committed. We have watched him for some time without him knowing it, determining at the proper time to invite him to make a picture for our magazine. When we *did* invite him he seemed surprised, and said, "Three years ago my work was rather ordinary, and what improvements I have made are due to hard work, and the hard study of your valuable magazines, and I mustn't leave out the one Convention and Exhibition I attended in Philadelphia, in 1871." Here is the secret of Mr. Jewell's success—hard work, hard study, and the Convention and Exhibition.

This year he says he will close his gallery during the Convention at Buffalo, and take all hands to enjoy the benefits that he enjoys. We commend him for his good sense and congratulate him on his good work. His picture needs no criticism. It is fine in all respects, except perhaps the negatives are a *little* too smoothly retouched.

With reference to his working, Mr. Jewell says:

"I use Hugh O'Neil's collodion as described in *Philadelphia Photographer* for March, 1870, page 71, in 'Mysteries of New York Dark Chambers.'

"Negative bath from 40 to 50 grains, strongly iodized with iodide of silver, and made quite acid with nitric acid.

DEVELOPER.

| | |
|---|---|
| Iron, . . . . | 1 ounce. |
| Water, . . . | 16 ounces. |

"Enough acetic acid to flow smooth. I never use it stronger, but sometimes weaken it.

"Fixing: Strong solution of hypo with a little cyanide. Take the negative out as soon as fixed.

"Printing bath, as follows:

"Silver solution from 35 grains to 60 grains strong (according to the temperature), to which I add from 30 to 60 grains to the ounce of nitrate of ammonia. I have had much trouble to get good prints during this cold weather, and only got over it by strengthening my silver solution, and silvering longer. One day I had an 80-grain bath and silvered three minutes. Even then, some days, I was unable to get passable results, and was compelled to print inside with the windows down. Of course in that case I reduced the strength of my solution. The paper was floated from three-

fourths to three minutes (seldom longer than one minute), and drawn across a glass rod and blotted off between sheets of unsized or bibulous paper such as printers use. Fume usually ten minutes.

TONING BATH.

"The following toning bath is also Mr. Hugh O'Neil's, and was kindly furnished me by that gentlemen (to whom I feel indebted and return thanks), and I must say that for easy management and most beautiful results, nothing I have ever tried equals it. It was a long time before I could muster up courage to try it (having tried his first one), but having done so I cannot say enough in praise of it, and I think those who will give it a trial once will use no other. Of course the prints must look rich and brilliant before toning or no bath will produce good results.

"Take gold enough in the requisite amount of water, to tone in about ten minutes, and make it *quite* alkaline with a strong solution of *washing* soda. Add from half an ounce to one ounce of common salt, and it is ready at once.

"Before immersing in the first water in which you soak the prints, add enough acetic acid to make the water taste slightly acid. Leave the prints in this water about ten minutes, and change them about continually. Change the water three or four times and they are ready for toning.

"I tone slow in an *exceedingly weak* light, and when the middle tints are just toned slightly bluish while lying flat in the dish, I take them out and immerse them in salt water. No matter if the rest of the picture is as red as a soft brick, it will come all right by the time it is quite fixed. An assistant takes them out as fast as they are toned, and immerses them in the fixing, when they will first turn red, and afterwards will come back to a beautiful tone by the time they are fixed. Don't feel alarmed if they look quite red after they are fixed even, as, if they are the right kind of red, they will dry up all right. Don't be afraid of undertoning; you are more apt to overtone

"After they are fixed, which will take about five minutes, immerse them again in salt water (which will prevent blistering), and leave them till the toning is done, when they can be removed to the tank for washing. I didn't intend to write a chapter on toning, but the result gives me so much satisfaction that I felt as if I must enter into some of the details.

"In regard to my light I will simply say that I have a top and side-light with a northeastern exposure. The management of the light and the internal arrangement are another thing. My first care is to exclude every trace of sunlight from the room, without shutting out any more of the light than I can help. For this purpose I use frames covered with tissue-paper that will raise and lower on hinges close up to the glass. This answers admirably, except that the leakings cause the paper to tear. (I shall arrange my light in a permanent manner in a few weeks, which if it works well I will describe in 'Wrinkles and Dodges.')

"I use over the head a light frame 4 by 3 feet, covered with tissue-paper, and fixed in a head-rest. This cuts off the direct rays of light from the top, and by it I regulate the shadow side of the face. I also use a small white screen on the shadow side sometimes.

"To light up the light side I let in a very little light from the side-light, which is covered with frames about a foot wide, and running from the top to the bottom, which work on pivots, so that when closed one will lap a little over the other. These are covered on both sides with dark blue muslin, making two thicknesses. I can open one or all of these at a time, as desired.

"The negatives were made in 30 seconds in a moderately light day, with a 4-4 Voigtlander short focus lens.

"The prints would have been much better had I had better weather and longer time to print them."

Mr. Jewell has had a hard struggle through a most cloudy and stormy winter with these prints, but his success is a credit to him. His tones are particularly delicate and fine. He used Hovey's Pink Rives paper, manufactured by the well-known D. Hovey, Esq., Rochester, N. Y. Mr. Hovey's paper has been well and favorably known for many years, and when it gets

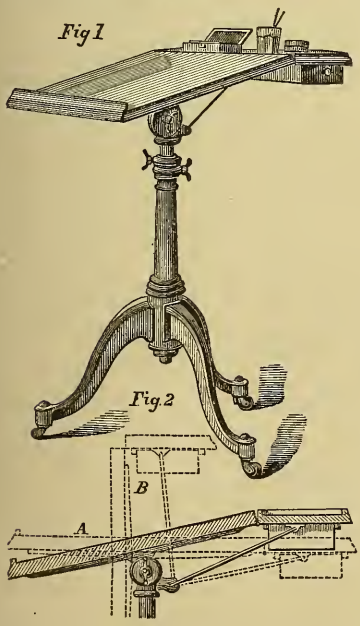
friends it holds them. The beautiful mounts were designed for us by Messrs. A. M. Collins, Son & Co., Philadelphia, and are known as their No. F 12, the price of which will be found in our *Specialties*.

In our next number we hope to give our readers a pleasant surprise from abroad.

## Adjustable Artist's Table and Desk Combined.

THE engraving below illustrates a very useful piece of furniture, which artists will welcome. It consists of a drawing-desk, easel, writing-desk, and table combined, all in one piece of apparatus. It is arranged so as to be readily placed at any required inclination or height. Its support is composed of a tripod surmounted by a hollow standard in which slides the spindle sustaining the desk. The portion of the latter on which the work rests, can be vertically rotated on its attachment to the standard, and as shown in the dotted lines of Fig. 2, either laid horizontal, or at A, vertical, as at B, or inclined as represented shaded.

*Fig 1*




The ledge on which the instruments, water cup, &c., are placed, is connected by a rod to a lug on the standard, and always remains horizontal. The entire apparatus may be lowered so that the artist can work sitting, or the standard may be lifted to its full height, secured by the thumbscrews shown, and the desk allowed to fall so as to form a perfect easel. By means of a collar on the spindle, the table may be turned to bring either side in front, so that the light on the work may be instantly altered by a mere touch. In the ledge are provided two commodious drawers for working materials, &c. The desk is mounted upon castors, handsomely finished in hard wood, and forms a pleasing ornament to the work-room. It can be put to so many uses by photographers that we give place to a description of it in our columns.

It is manufactured by the Worcester Industrial Institution. For further particulars, please see the advertisement in our current number.

## WHAT I KNOW ABOUT MAKING INTERIOR VIEWS.

BY MORRIS ISRAEL.

THE secret of success in making interior views, depends more upon clean manipulation than any particular formula. The object is principally to produce a sensitive film, which will keep moist during a prolonged exposure. A gun-cotton with short fibre gives the best result, but any good sample will do if boiled from half to one hour in rain or distilled water. The boiling makes the cotton homogeneous, and it will absorb the sensitizing salts much better, at the same time avoiding the very annoying marble stains which are almost sure to appear if the film were of a horny gelatinous kind. A large proportion of bromide ought to be used for two reasons, viz.: The salts of bromine are sensitive to the weak rays, which is generally known; and secondly, because they are very deliquescent, thus keeping the film moist for a considerable time. Make the collodion thicker than for general use, not less than eight grains to the ounce, and sensitize with iodide of ammonium four grains, bromide of magnesium three grains (I think chloride of magnesium would be still better, but have not been able

to obtain it), silver bath thirty-five or forty grains, slightly acidulated. Immerse the plate when hardly set, and take it out the very moment it is coated, furthermore hastening the process by moving the plate all the time, not up and down, as the majority of operators do, but in a kind of circular motion. Have your plate-holder scrupulously clean, the slide and corners well shellacked or waxed with paraffine, and back the plate with a piece of damp red blotting-paper. Give a full exposure; no danger of overexposing dark interiors, and if necessary, light up the shadows by reflected sunlight. Windows in front of the camera should only receive a small fraction of the whole exposure, otherwise they will be solarized. The exposed plate should keep well for upwards of an hour without showing any sign of drying. If it does, then the strength of the bath must be reduced, and the collodion accordingly. It is unnecessary to state that the bath must be kept in a pure condition, and I have found nothing so efficient as frequent sunning. In all photographic processes, but especially in this one, the success depends upon the purity of the chemicals, good manipulation, and last, but not least, clear judgment.

## CLEANING GLASS AND FERROTYPE PLATES.

BY J. PARKER, JR.

By the following process the much-dreaded task of cleaning negative glass and ferrotype plates that have been used is done away with, and any that have not used it will find, by giving it a fair trial, that it will prove a great saving in time, and that they can use their ferrotype plates as many times as they choose, and that they will be as good as new to the last. I have used it for about four months and I often wonder how I used to get along buffing plates and the vexations connected therewith. But this is not telling how it is done. *So here goes.*

Keep a stock-bottle of albumen prepared as follows:

| | |
|---|---|
| The whites of 6 eggs. | |
| Water, . . . . | 6 ounces. |
| Aqua Ammonia, . . . | 1 ounce. |

Drain the whites of the eggs in a bottle, then add the water and ammonia, shake well and let stand until settled, when it is ready for use; decant into a small bottle as required for use; next keep in your dark-room a dish of clean water, and when you make a sitting that proves a failure, throw the plate into the dish of water and let it remain until you are through operating for the day, then take the plates and wash thoroughly under the tap, rub the plate with the hand until you have removed every particle of the old film, which you can tell by holding up the plate. If the water does not run off smooth, but wavy in spots, you will know there are spots of the old film remaining which must be washed off. When the plate is perfectly clean, for negative glass flow with the albumen and drain back in the bottle the same as collodion, then hold it under the tap and let the water run on it until it has washed off all the albumen. Then set up to dry, either on pegs, or what is as good, spread a clean paper on a shelf, set them on it and let it rest against the wall or any decently clean thing. When dry they are ready for use and will keep a long time, and if they get dusty can be brushed with a soft brush without injury. For ferrotype plates treat the same way, except the albumen will not flow readily. Drop a few drops of the albumen on the plate when perfectly free from the old coating; take the hand and rub it over the face of the plate. Be sure you hit it all, then wash it under the tap and dry the same as glass. When dry they are equally as good as before being used. Any ferrotyper that has not used this, or something similar, will find it a great saving, for if you do not let the plate get dry, or partially so, you will not need to lose a plate in a year. New negative glass treated to a solution of nitric acid one part, water eight parts, for a few days, then washed and flowed with albumen, as above, will work well, and it is but little work to prepare them. Try it, one and all, then you will know whether it is practical or not.

## WHAT A RETOUCHER CAN SEE ON THIS TOUCHY SUBJECT.

When first I began to read the criticisms of the press on this all-important topic, which has so agitated the photographic world, it was with feelings mingled with fear and anxiety, as though each shaft was hurled at my own personal efforts; but since I have become a little more proficient in the art, and have better understood its principles and necessity, it has been a source of amusement rather than otherwise; yet a person dependent on the world's approbation for a living becomes morbidly sensitive to that world's approbation or criticism of their pursuit. The human heart yearns for sympathy, and to the artist it is the most essential feature of his life, and the most potent agent to nerve him on to greater endeavors, as he toils up that steep and rocky ascent, and is crowned at last with the laurel wreath of triumph and success, or for lack of encouragement and sympathy sinks into the slough of despond. Victor Hugo says, "Be it true or false, a man's life is influenced as much by what may be said of him as by what he may do." And in regard to the labor of the artist the beholder does not see what he *tried* to do, but only what he *did* in the broadest sense of the word. And here let me ask (notwithstanding it is a slight digression) that, although much has been and is being said in regard to the photographer to his patrons, has ever anything been said in regard to the employer to the employed? Surely, if he can be captious, fault-finding, and disagreeable to the elegant ladies that appear to him under the skylight, and who pay him politely for all he does or does *not* do for them, then what think you he must be to the young ladies striving so hard to please, and who are subject to all, and more than all, of his caprices behind the scenes; and by whom an ungentlemanly bearing is not to be tolerated, and, if possible, works more against his interest than if preserved toward his patrons. For it is obvious that an effort to please, prompted by respect for an employer, and love of pleasing one who *can* be pleased, is far more likely to succeed than when all trembling for fear of *crushing censure*. If one does well why not tell him so? or if one makes an effort and fails, they are as conscious of their failure as you are, and their chagrin and disappointment is heavy enough; withhold your censure, tried though you may be, extend your sympathy and encouragement, and they will succeed better next time I promise you.

But to return to the subject of which I have as yet only "touched" upon, and to which I determine devoting myself, not only in this article, but also as a life profession. From earliest childhood I possessed an inordinate love for pictures, and in my day-dreams believed that I should paint some day (which idea I am far from relinquishing), although I then looked forward to it as an accomplishment; but when I suddenly awoke from being a petted, spoiled child, to find myself orphaned and dependent on my own resources, or the charity of wealthy, but taunting, jeering relatives, I determined to try the former, and following the bend of inclination, which, of course, turned to pictures, and being impressed with the beauty produced by the manipulation of the negative, I determined to master the art, and have pursued that, as well as other branches of art, thus far under the *greatest* difficulties. Of course it is to be expected that I should advocate this to some almost fraudulent practice. My idea of retouching is to soften lines and shadows, and obliterate blemishes (all of which the untruthful camera has exaggerated almost beyond recognition), thereby *improving* the *likeness*, and rendering the modelling of the "human face divine" all the more perfect and distinct. Then, too, in regard to the eyes, the light often strikes across the pupil, as happens most particularly in the case of dark or black eyes, conveying the idea of blindness to the beholder. The moment this is interfered with on the print, instantly all beauty and rotundity of those "windows of the soul" is lost; and in this age of progress I ask the anti-retouchers what is to be done? Surely to let it pass is a disgrace to all concerned, and I have never yet succeeded in successfully remedying this defect and restoring "those *speaking* eyes," except upon the negative; notwith-

standing I have tried many a time and oft, and if any of the anti-retouchers, who are lovers of art and progress, have discovered any other means of obviating this great evil, surely I shall be happy to hear from them, for as a fraternity we should combine for mutual instruction and improvement in this lovely art—photography. Then, too, what other means can you suggest for disposing of an unruly lock of hair, or straightening or lengthening a stiff, wiry curl, or for setting right a carelessly adjusted neck-tie, or lifting a bit of crushed lace to its proper place? Or still more, how else can you dispose of those unsightly freckles, and other blemishes, which appear only too distinctly on the negative, even when invisible to the naked eye. The camera has a way of searching these things out, and they suggest the idea of a swarm of bees having settled promiscuously upon the face of the subject. As proof that the camera searches out what your vision had failed to discover, place your instrument at such a distance from a building that you cannot read the sign, and you have them distinct upon the print. To dispose of these unsightly blemishes, to which the flesh is heir, cannot detract one iota from the likeness. *Every one* wants a picture to flatter, however much they may endeavor to assure you to the contrary. Human nature is weak. For instance, a young lady, not over handsome, enters and desires a sitting, assuring you that she does not wish to be *flattered* in the least. You take her at her word, and produce her pictures, which a few dexterous touches would have rounded out and very much improved. What is the result? In the former case the pictures are tossed back to you, accompanied with various adjectives, such as "*Perfectly awful*, horrid, the worst pictures she ever had taken, &c. She will pay for them if desired, but they are fated to be consigned to the flames. She shall *never* distribute such pictures among her friends, for they don't bear the slightest *resemblance* to her." But on the other hand produce the fairest pictures you can, pictures that will really flatter her into the belief that she is pretty, even if she never thought so before, and you are rewarded by, "Oh, are they not exquisite, love; so perfect of me." "Yes, dear" (chimes in young lady number two), "they are divine." Young lady number one settles her flounces very complacently, and assures you she shall recommend her dear five hundred friends to give you a call, as she bows and smiles herself out of your presence. Every one who is acquainted with the photographic art is well aware that similar scenes are being daily enacted in every considerable gallery; and to study *what* will please each particular individual and to know *how* to execute, is a branch too closely connected with the art to be neglected. Human nature is, indeed, a great study, and one with which the photographer cannot afford to be wholly unacquainted. And who has a wider field in which to pursue it than he? To the retoucher, whose labors are ofttimes not a little perplexing, it is none the less important, and whose *greatest* danger is of overdoing the work in the anxiety to produce something very fine at whatever cost. Actuated, no doubt, by fear that some one may or has imagined that they are disposed to slight their work; which accusation is most unendurable by one who has not the least inclination to do so. Indeed, if I may be allowed to speak of personal experience, one of my greatest trials is to have the printer (who is one of the partners of the firm where I am employed) bring me a negative on which I have expended the utmost care, and which I may have despatched to the printing-room with the most sanguine hopes, and insist on my touching the blemishes more strongly, and soften the lines and shadows to a still greater extent. To comply and touch the former I feel fully assured will cause the necessity of touching back on the print, which is a disagreeable and unsatisfactory operation at best, and to comply with the latter, must entirely obliterate. And if I attempt to remonstrate and explain my reasons for so doing, I am curtly informed that I am wilful and disobliging, and that he can do it himself. Consequently I have the satisfaction of seeing his great burly form at my frame, and of knowing that he knows literally nothing about what he is doing, and that all my labor is being utterly ruined; whereas if he

would kindly produce a print and point out the defects (of which, no doubt, there are a plenty), gladly would I remedy them, though it required a week to do it. Hitherto I have been often admonished not to work *too much* on a negative, as it would destroy the contour of the face, which are likewise my sentiments, and that a well-wrought negative must needs produce a beautiful result, cannot be justly denied. Shakspeare says, "Spirits are not finely touched but to fine issues." May not the same hold true with the negative?

JENNIE.

## The Collodio-Bromide Process.*

IN asking your attention this evening to a few remarks on the collodio-bromide process, I feel that I am bringing before you a subject that cannot fail to be of interest, both to the professional and to the amateur photographer. Especially in the case of one who is about to adopt a dry process in his regular practice does this process offer great inducements in respect to certainty, facility of preparation of the plates, ease of development, and cheapness.

Having tried a variety of formulæ in the course of the present winter, and having settled upon one by the aid of which I can be tolerably certain as to my results, I will ask your indulgence while I give you its details as briefly as possible.

In the first place, I have been entirely unsuccessful with all emulsions containing even *a trace* of free nitrate of silver. I may mention in this connection, that while in London last summer, I paid a visit to Lieutenant-Colonel Stuart Wortley, who very politely prepared and developed several plates in my presence, all of which were very good, and at my departure gave me a bottle of his emulsion for trial. This gentleman maintains that an excess of free nitrate of silver in the emulsion gives films of greater sensitiveness than if free bromide be present, and that if proper care be taken, no fogging need ensue. Immediately upon my return to Philadelphia, I began to experiment with emulsions containing an excess of free nitrate of silver made according to his formula, as well as with that which he himself had given me, but failed at every point. The plates fogged so badly sometimes that an image was scarcely discernible.

Having by these experiments lost faith in the theory of an excess of free silver, I proceeded as follows: To a quantity of emulsion containing an excess of free silver, and with which I had not been able to secure any good result, enough bromide of cadmium was added to neutralize the silver. The emulsion now worked perfectly clean and free from fog both wet and dry, and after thinning it down a little, I obtained some satisfactory results.

Again, having at hand some emulsion which contained bromide in very slight excess, and which gave good results, I purposely added an excess of free nitrate of silver. A plate was prepared with this emulsion *immediately* after the addition of the silver, and exposed and developed under the same conditions with one prepared with the same emulsion before the silver was added. I could not perceive the slightest gain in sensitiveness, but the plate was clean. A plate prepared when the silver had been present twelve hours showed decided signs of fogging, and at the expiration of ten days the emulsion was useless.

I have been somewhat disappointed in the sensitiveness of emulsion dry plates; but I feel convinced that they are not slower than ordinary tannin plates, and will keep at least as well; the sensitized emulsion also will keep for several months in cold weather.

The formula which I am now using stands as follows: for four ounces of emulsion take

| | |
|---|---|
| Alcohol, . . . . | 1 ounce. |
| Ether, . . . . | 2 ounces. |
| Bromide of Cadmium, . | 24 grains. |
| Bromide of Ammonium, . | 20 " |
| Chloride of Calcium, . . | 8 " |
| Cotton, . . . . | 28 " |

Set this aside to ripen for at least a week before adding the silver. To sensitize, put seventy-six grains of finely pulverized nitrate of silver into a test-tube; pour on it one ounce of alcohol, and boil over a lamp until dissolved; then add it to the bromized collodion, a little at a time, and shake well.

* Read at the March meeting of the Photographic Society of Philadelphia.

Filter, and set it aside in a perfectly dark place for three days. Then filter again and use.

The plates should have a substratum of albumen, and the emulsion should be allowed to set thoroughly before dipping into the water so as to favor adhesion of the film; in coating, take care to avoid crapy lines.

PRESERVATIVE.

| | |
|---|---|
| Tannin, . . . . | 10 grains. |
| Gum Arabic, . . . | 6 " |
| White Sugar, . . . | 4 " |
| Water, . . . . | 1 ounce. |

Filter, and add one drachm of a twenty-four grain solution of gallic acid in alcohol. This preservative keeps very well.

The formulæ for preservative and developer are the same as those used by Colonel Wortley.

DEVELOPER.

| | |
|---|---|
| Pyrogallic Acid, . . . | 96 grains. |
| Alcohol, . . . . | 1 ounce. |
| Carbonate of Ammonia, . | 64 grains. |
| Bromide of Potassium, . | 4 " |
| Water, . . . . | 2 ounces. |
| Aqua Ammonia, . . | 20 drops. |
| Water, . . . . | 1 ounce. |

Moisten the exposed plate with a mixture of equal parts of alcohol and water; let it soak in for a little while, and then wash off under the tap. To develop, take one ounce of water and add to it fifteen minims of the pyro solution; flow this over the film and return to the glass; then add a few drops of the carbonate of ammonia solution, and reapply to the plate. A little of the weak ammonia solution without bromide may be added from time to time to increase intensity; but if the plate be underexposed, take a fresh portion of developer with more pyro and less ammonia than before, and force until the necessary detail is brought out. The plate will receive its full printing density from the alkaline developer only.

For fixing, use cyanide of potassium of the full negative strength.

Care should be taken not to have too much light in the dark-room. If gas is used, put ruby glass between it and the film.

I believe that a backing is indispensable. It need not be very thick—a little burnt sienna rubbed up with gum-water and a very little glycerin, with a drop of carbolic acid to prevent mould, will answer well.

The plates must not be overdeveloped. The color of the film is generally reddish-brown and very non-actinic, and the plates seem to have more contrast after fixing than before.

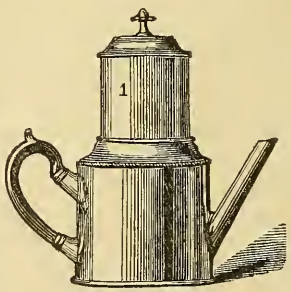
In concluding, allow me to express the hope that this process may be thoroughly investigated by the members of this Society, for there are many points in it which are by no means clear, and where careful research would doubtless be productive of much practical benefit

ELLERSLIE WALLACE, JR.

March 5th, 1873.

## THE COFFEE-POT VARNISH POURER.

MR. A. MARSHALL, of Boston, gives us some useful hints regarding the use of the well-known style of coffee-pot shown in the cut herewith, as a varnish pourer and as a




means of separating the clear varnish from the particles of dirt, &c., apt to get in the varnish when coating plates. Mr. Marshall says: "The engraving will show exactly how it works. A piece of cotton flannel is made to fit into the inside of the top portion, and on that some filtering-cotton. After flowing the negative the surplus varnish is poured back into the top, and by filtering back into the pot we have the varnish always clean and nice. The bottom of the part marked 1, is covered with a fine wire gauze. They can be obtained at any kitchen furnishing store."

It doubtless answers admirably.

## PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

STATED meeting held April 2d, 1873.

The minutes of the last meeting were read and approved.

Dr. Wilcocks reported that an exhibition of lantern slides had been given at the Franklin Institute on the evening of the 28th of March. On motion, the committee was discharged.

Mr. Albert Moore presented a very handsomely framed solar enlargement, from a portrait negative of Constant Guillou, Esq., late President of the Society. A vote of thanks was tendered to Mr. Moore for his gift; also to Messrs. Benerman & Wilson, for a donation of six fine cabinet portrait studies by Luckhardt, of Vienna.

The President exhibited a number of drawings executed with thalleine varnish, and gave the following account of this new substance: "Thalleine was discovered by Prof. Henry Morton, of Hoboken, N. J. It is obtained from the residues of petroleum, used for the manufacture of illuminating oils. Near the close of the distillation a thick tarry matter is produced. This is treated with alcohol, ether, and benzine, and a crystalline body of a yellowish-green color obtained, which is remarkable for its fluorescence. The drawings are painted over with the thalleine varnish, and when a strong light is thrown upon them through cobalt glass, the fluorescence will appear at once."

Mr. Schreiber exhibited some prints and slides made by the Edwards reproducing process.

After adjournment, Prof. Morton's thalleine drawings were exhibited by magnesium light, and attracted much interest. The fluorescence was of a delicate green hue in some places, and light canary-yellow in others.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

## PHOTOGRAPHIC ASSOCIATION OF WESTERN ILLINOIS.

THE stated meeting of the Association was held, April 2d, at the gallery of Z. P. McMillen, of Galesburg, Mr. T. M. Wells presiding.

Five new members were received.

The Secretary presented a set of the six cabinet photographs to the Association in the name of Benerman & Wilson; the said pictures being those offered as a premium for new subscribers to the *Philadelphia Photographer*.

The Association acknowledged the same by the following resolutions:

*Resolved*, That a vote of thanks be tendered to Messrs. Benerman & Wilson, for the six photographs (the work of Fritz Luckhardt, of Vienna, Austria) received from them.

*Resolved*, That we, the individual members of this Association, use our influence to increase the circulation of the *Philadelphia Photographer*, believing that no photographer is able to do without it.

One member stated that he was greatly annoyed by a photographer (?) making photographs for one dollar a dozen, in his town. It was suggested that as he was a cheap man, that he buy him. Complainant thought that such men would be dear at ten cents a gross; yet, he thought that if he could be influenced to join our Association, and to subscribe for and read the *Philadelphia Photographer*, he perhaps might be developed into a respectable competitor.

The subject of making and keeping the printing bath in order, and of sensitizing the paper, printing and finishing the print, was then discussed, and continued until the next meeting.

On motion, adjourned to meet at the rooms of Barker & Bulkley, the first Wednesday evening in July next.

J. F. BARKER,
Secretary.

## CHICAGO PHOTOGRAPHIC ASSOCIATION.

AN adjourned meeting of the Association was held at the store of Charles W. Stevens, 158 State Street, Wednesday evening, March 19th. Vice-President Green in the chair.

A committee, consisting of Messrs. C. W. Stevens, Hall, and Davis, was appointed to aid the officers of the National Photographic Association in securing excursion rates on all railroad and steamboat lines running

from Chicago, for those desiring to attend the National Convention at Buffalo, in July next.

A committee, consisting of Messrs. Hesler, Mosher, and Melander, was appointed to look after the interests of photography in the Interstate Exposition, to be held in our city in September next. The chair introduced Mr. Charles M. Chittenden, the representative of the Scovill Manufacturing Company, who spoke as follows:

Mr. President and Gentlemen of the Chicago Photographic Association: Friend Douglass, your Secretary, has suggested my presence and proposed a speech. Now, that is one of the impossibilities with me. I never made a speech in my life, and the simple truth is, I cannot; but this I will do, testify to you my pleasure in meeting with you here this evening. I knew that Chicago had a live photographic society, and I am honored with the personal acquaintance of many of its members; but I little thought that it would be my privilege, while in your city, to meet with you, as I do to-night.

I wish that I were a practical photographer, if for this reason only—to say something to you this evening that would interest and benefit you; but as I am not a photographer, must ask your indulgence, and if I can encourage you any in your associated effort, shall feel well paid for *my* effort to satisfy friend Douglass and the members here present.

It has been stated to you that I am "an old hand at the bellows," and could say a great deal if I would. Well, the first part of the statement is about right; the bellows gives the fire life, and I, in dealing out to the practical photographer apparatus, chemicals, &c., help them to start a "blaze,"—give them life—this is the relation I hold in your ranks—I "blow the bellows." Having been connected with the Scovill Manufacturing Company (a house well known to the fraternity) many years, I note in my experience wonderful changes; and as I sat here to-night listening to your proceedings, these changes were brought vividly before me, and nothing so wonderful or striking as the fact, that associated effort in the grand march of improvement in this beautiful art is steadily gaining ground, and in every city and town of any note societies are growing up, aiding in the grand work of knowledge—the National Photographic Association of the United States the monitor of all. I have seen the daguerreotype, still claimed by some to be the most perfect production of the *heliographic art*, give way to the *ambrotype*—the ambrotype superseded by the photograph, that crowning effort of all. What is yet to come I know not; progress is stamped upon everything in this world, and photography keeps even pace with the foremost.

Gentlemen, I am glad to have met you, and the recollection of this evening, spent with the Chicago Photographic Association, will be cherished as one of the happiest of my photograhic experience.

My best wishes are with you, and as I notice the journals from month to month, shall watch your progress with the greatest interest, and right here suggests itself, that never before in the history of our art was the means of knowledge so extended as at the present time; instead of two journals of limited circulation, and at rare intervals a text-book, we have monthly and bi-monthly journals, text-books written by practical men, and published, one following fast upon another, and many of them of such value that several editions are called for, and still the demand for knowledge is gaining, the devotees of the art demanding "more light;" and last, but not least, comes the Associations, just such as I speak to here this evening, all aiding in the advancement of the art, until the time approaches when the word photographer will be the synonym for artist, in its highest and broadest significance—embracing the chemist and scientist—the most comprehensive profession of the age.

Mr. George A. Ayres, representing E. & H. T. Anthony & Co., was then called on, speaking as follows:

Mr President and Gentlemen: Again I have the pleasure of meeting with you, and noting your progress as an Association.

I am gratified to see so many here to-night; faces almost all of them familiar to me, reminders of years passed here among you as one of the devotees of this great

photographic art; for although not a practical worker in the ranks of the "sons of light," still not less a laborer with you, for some there must be to furnish the machinery, the material, and aids by which you "secure the shadows" of men "ere their substance fades."

It is, indeed, a pleasure to me to see the interest manifested in your Society by such a large attendance; it speaks well for the Chicago Photographic Association, and for you as individual members.

I cannot speak to you this evening on topics that would interest you most, for I am not a photographer; but if words of encouragement will aid you any in the good work in which you are engaged, I can offer them in all sincerity, You find in this Association, meeting as you do from month to month, a chance for the interchange of ideas, thought, the comparison of formulæ, noting improvements in apparatus, and aids for the productiou of your work, and in healthy criticism of examples from your studios and the field, thus forming a school for improvement of incalculable benefit for each and every one of you.

In the few years of my connection with the heliographic art I notice great changes, one of the most marked, and certainly the best I see in these societies, springing up all over the land; a chain uniting the fraternity in one grand brotherhood, and lifting the art upward to a higher standard, improving in excellency of production as it rises, its devotees becoming artists and men of science, enlarging their knowledge of the means which subserve their ends, knowing and controlling light, digging deep into the mysteries of chemistry, handling subtle agents with comprehensive knowledge and certainty of results, satisfied only with productions bearing the stamp of high art. These, gentlemen, are the benefits and uses of such associations as this, and one of the brightest links in this fraternal chain (and I speak no empty compliment) is your Chicago Photographic Society. May it grow in numbers and usefulness; and I shall always hold it a rare pleasure, when visiting your city, to meet with you. I thank you for your patience in listening to these remarks, and trust I shall have the pleasure of meeting you all in Buffalo, in July next, when our National Society holds its Convention and Exposition.

On motion, adjourned.

G. A. Douglass,
Secretary.

The regular meeting of the Chicago Photographic Association was held at Copelin & Son's gallery, Wednesday evening, April 2d, 1873. President Hesler in the chair.

E. B. Spencer and Samuel May were elected members.

An interesting paper on Collodion was read by Mr. L. M. Melander.*

Mr. Melander's paper was discussed, and the able manner in which he had treated his subject was warmly praised.

The following members were appointed to prepare papers for the next regular meeting: P. B Green, J. K. Stevens, and on motion, Mr. Hesler was added to the number.

The Secretary read a communication from Benerman & Wilson, publishers of the *Philadelphia Photographer*, accompanied with a set of studies, made by Luckhardt of Vienna, Austria; the set, six cabinet photographs handsomely mounted, are given by them as a present to the Association. These studies were greatly admired by the members present, and all were convinced that they were worthy of most careful study, and the fact that the set could be so easily and cheaply secured, as noted in the premium list of the *Photographer*, was considered most liberal, and another instance of the unflagging efforts of the publishers of the *Photographer* to improve and elevate all who read its pages.

On motion, a vote of thanks was tendered Benerman & Wilson for the Luckhardt studies and for their interest in our progress.

The offer of Mr. C. W. Stevens, giving the Society a room over his store, No. 158 State Street, for a permanent place of meeting, was accepted.

On motion, it was decided that an adjourned meeting be held on Wednesday evening, April 16th, 1873, at which time

* We are compelled to lay over the publication of Mr. Melander's paper until our next.—Ed.

Mr. Hesler be invited to show the Carbutt slides (Woodbury process), and that Mr. William Shaw be asked to furnish his improved sciopticon for the exhibition.*

Mr. J. A. Anderson exhibited the patent focussing attachment of A. St. Clair, Cedar Rapids, Iowa—a useful article, and doing credit to Mr. St. Clair's genius.

Mr. John Haynes, a photographer of long experience, exhibited his new position chair, with flexible side-arms and back support, a most decided aid in making sittings and graceful positions.

Fenton Tinsley was elected a member, and on motion adjourned.

G. A. Douglass,
Secretary.

## ANOTHER SOCIETY IN CHICAGO.

Another society has been formed in Chicago with the following officers:

A. Hesler, President; C. D. Mosher, First Vice-President; A. Hall, Second Vice-President; L. M. Melander, Secretary; P. B. Green, Treasurer.

The Society has no name as yet, but a committee has been appointed to draft constitution and by-laws, to report at the adjourned meeting which was to be held Wednesday evening, April 23d, at the studio of Mr E. L. Brand, and the organization completed. The regular meetings will be held in the Chicago Fine Art Institute and Art Gallery, corner Michigan Avenue and Van Buren Street. The dues are to be $10 per annum, which includes tickets to the free drawing lessons of the Institute, and to the Art Gallery.

We wish the new organization success and much usefulness, and hope every member of it will avail himself of the advantages of the instructions in drawing.

The *Philadelphia Photographer* was made the organ of the new society.

## Indiana Photographic Association.

The regular monthly meeting of the Indiana Photographic Association was held at John Cadwallader's gallery, Wednesday evening, April 2d. The attendance was fair, and included several ladies. After the usual routine, the Secretary remarked that he had a happy surprise for the members present, in the shape of a present from Messrs. Benerman & Wilson, consisting of six beautiful cabinet card portraits of ladies, the result of the handiwork of Mr. F. Luckhardt, the celebrated photographist of Vienna, Austria. These pictures were examined and much admired by all present, and a hearty vote of thanks was given to the thoughtful, enterprising, and generous donors who offer them for new subscribers to the *Philadelphia Photographer*.

Next came the reading of a paper by Mr. Cadwallader, containing some hard hits at those who keep dirty galleries, dark-rooms, &c., but especially severe, and, as I think justly so, were his hits on photographists who so far forget themselves as to chew or smoke tobacco, thereby staining their shirt-bosoms, their moral characters, and sometimes their photographs as well.

Following this came the discussion of "The Negative Bath," which was participated in by quite a number, who seemed to have given the matter considerable thought.

Other matters of minor importance were attended to, when the meeting adjourned, to meet at Adams & Allison's gallery the first Wednesday evening in May.

J. Perry Elliott,
Secretary.

## PHOTOGRAPHIC ASSOCIATION OF THE DISTRICT OF COLUMBIA.

The sixth stated meeting of the Photographic Association of the District of Columbia was held at Mr. Pulman's gallery, Tuesday evening, April 1st, 1873.

The following gentlemen were duly elected members: P. Tralles, J. W. Porter, O. Robert, S. C. Mills, and Mr. Holmes.

The Secretary read a letter from Benerman & Wilson, presenting to the Society a set of six beautiful German cabinet card pictures by Fritz Luckhardt, Vienna, Austria; also a circular offering the pictures as a premium for new subscribers to the *Photographer*. The pictures were examined and admired by all, and a vote of thanks tendered Messrs. Benerman & Wilson for

* This was done as arranged.—Ed.

their kindness in making us so valued a present. All members who were subscribers to the *Photographer* expressed themselves as ready to do everything in their power to aid in increasing its circulation and furthering its usefulness.

The Secretary also read a contribution from D. W. Curtis, an ex-photographer, on "Taking the Baby." It was Smith's baby, and the trials, troubles, and tribulations of the Smith family on the eventful day that was to hand down to posterity the physiognomy of its hopeful son and heir were duly narrated; nor were the joys of the patient (?) artist forgotten.

The President, Mr. Ward, gave a short dissertation on "Brilliant Negatives," in which he stated that he had used hydrochloric acid in collodion for the purpose of producing brilliancy, and with favorable results and no diminution of time. He employed from one to two drops to the half pound of collodion. The negatives were soft, full of detail, and brilliant. He also exhibited some cabinet cards made with collodion so treated, showing that in his hands, at least, the results are admirable.

Some little discussion was had on the subject of developer; and the Secretary read an article from the *Photographer*, by Frank E. Pearsall, on "Proper Method of Development as Applied to Photography."

E. J. PULMAN,
Secretary.

## MARYLAND PHOTOGRAPHIC ASSOCIATION.

THE regular meeting was held on Thursday, April 3d, Mr. Bachrach in the chair.

Owing to a misunderstanding in regard to notifying the members of the time of meeting, there were but few in attendance.

The size photograph to be exhibited, print and negative (both to be *untouched*), at the next meeting was decided would be the cabinet or imperial card of a gentleman. Moved and adopted, that the Secretary be authorized to have notices printed, and hereafter notify all the members before each meeting. An amendment to the constitution, which was to have been acted upon, was postponed until next meeting.

The Secretary presented the Association with six beautiful cabinet photographs, made by Fritz Luckhardt, Vienna, Austria, which were kindly donated to the Society by Messrs. Benerman & Wilson, of Philadelphia. They were greatly admired. On motion of Mr. Varley, the Association gave Messrs. Benerman & Wilson a unanimous vote of thanks for the valuable present.

G. O. BROWN,
Secretary.

## German Photographers' Society of New York.

THE general monthly meeting of this Society was held on Friday, April 4th, at 66 and 68 East Fourth Street; President W. Kurtz in the chair.

Messrs. J. Klein, A. Esselborn, and Fr. Schmidt were elected members.

The Secretary laid before the meeting a set of six cabinet pictures, by Mr. Fr Luckhardt, of Vienna, received from Messrs. Benerman & Wilson. From a circular issued by Messrs Benerman & Wilson, and received the same time, it was learned that these pictures were not for sale, but only obtainable as an extra premium for new subscribers, and the above-named gentlemen received therefore an especial vote of thanks for their kind favor. The contemplated enlargement of the pages of the *Photographer*, dependent upon the number of new subscribers, met with general satisfaction, and it was thought that this plan for the mutual benefit of both publishers and subscribers would be sure to be successful. The pictures elicited general praise; the draperies especially were very favorably commented upon. The illumination and choice of accessories were considered in two or three of them not altogether faultless, but on the whole they well sustained Mr. Luckhardt's reputation as an artistic photographer.

Mr. E. T. Spahn exhibited, firstly, a large elegant album, for the quicker and better display of pictures to customers; secondly, an ingenious model for the easier and more complete saving of silver in all the washing processes, both of negative or untoned positives; and lastly, a patented cam-

era attachment for saving time in all manipulations of focussing and exposing.

It consists of two black walnut slides, held together by a cross-bar, which is screwed upon the front part of the camera, so that the other ends of the slide extend loosely over the top of the movable part. These slides are guides for two other grooved slides, which can be run with great ease beyond the front as well as the back of the camera box. Over the whole length of these movable slides hangs a black velvet curtain. When the slides are drawn backward, part of the curtain on each side bends around by means of an elastic, forming thereby a complete dark space behind the ground-glass, and around the head of the operator. When the slides are thrown forward to their stopping-point, an additional curtain of black velvet falls right over the tube, closing it up effectually. For exposing, this curtain is lifted by means of a thin steel spring, fastened on each side of the attachment. As this tube is protected by a complete hood, formed by the velvet over the slides, the opening of the tube is hardly noticed—a very great advantage with nervous people and children. For long exposures the steel spring may be set under a little screen near by; for short ones the finger is kept lightly on it, to enable by its withdrawal the instantaneous dropping of the curtain.

The Society tendered Mr. Spahn a well-merited vote of thanks for this valuable invention, as well as for his endeavors in general for the promotion of photography.

Adjourned.

EDW. BOETTCHER,
Corresponding Secretary.

## BOSTON CORRESPONDENCE.

I LAST evening had the pleasure of attending a meeting of the Boston Photographic Association, and it is a noticeable fact that the meetings are more fully attended and a greater interest is taken in the success of the Society, for at the last meeting about forty members and visitors were present. Last evening Mr. J. W. Black (the President), exhibited a very elegant thirty-five dollar § Philadelphia stereo camera box and tripod stand. He stated it came from the factory of the American Optical Company, New York, and was a present to the Society from Mr. W. Irving Adams, a gentleman who for some years past has labored earnestly and hard to advance the art in this country; for in his capacity of superintending the photographic branch of the celebrated establishment of Scovill Manufacturing Co., Mr. Adams has been enabled to place in the hands of artists apparatus that is unsurpassed and rarely equalled. Mr. Black also stated that the well-known house of Benjamin French & Co., of Boston, with their usual generosity, donated to the Association a pair of their celebrated stereoscopic tubes and lenses, and further, that Mr. Benjamin French had informed him if at any time the Society wished to offer another prize, he would contribute a more valuable instrument, if by so doing the members of this Association would be benefited.

Mr. Black having concluded his remarks, Mr. E. Smith proposed that a vote of thanks be tendered to Messrs. W. Irving Adams and Benjamin French & Co.

Mr. Halloran, from Whipple's, offered the following resolution:

"WHEREAS, Mr. W. Irving Adams, of New York City, and Benjamin French & Co., of Boston, Mass., having in a most liberal manner presented this Society a very valuable camera box, view stand, and pair of stereo tubes and lenses, be it

"*Resolved*, That our Secretary be instructed to return to the above-named gentlemen the thanks of the members of the Boston Photographic Association for their beautiful presents."

The resolution was carried.

Messrs. Southworth and Rowell thought the prize was a most valuable one, and it should not be disposed of too hastily, and hoped a committee would be appointed to attend to the matter. Messrs. Southworth, Rowell, and Marshall were appointed by the President as the committee.

Mr. Aitken, from Hardy's, exhibited a very fine retouching stand, which was thought to be a most useful apparatus for that purpose.

Attention was called to the set of Luckhardt's six very beautiful Vienna cabinet portraits which Messrs. Benerman & Wilson were offering to any person who would send the name of a new subscriber for the *Philadelphia Photographer;* the prints were thought to be worth more than the price which was charged for the journal, *i. e.*, $5 a set, and the President, Mr. Black, stated every operator should have a set, for he considered them to be most admirable studies, and far superior to any which he had seen heretofore. Mr. Black also stated that the publishers of the journal should be sustained, for they were undoubtedly publishing the best photographic journal he had ever read, and as they had always been found ready and willing to aid the photographer, we should help them in return by subscribing for the best photographic publication ever issued from the press. Many present stated they were going to have a set of the studies even if they had to pay for them.

Mr. Holton was called upon for the developer used in the production of the superior ferrotypes made at his gallery. Mr. H. stated it was made as follows:

| | | |
|---|---|---|
| Water, . . . . | 2 | quarts. |
| Sulphate of Potass., . . | 1 | ounce. |
| Protosulph. of Iron, . . | 1½ | ounces. |
| Double Iron and Ammonia, | 2 | " |
| Liq. Ammonia, . . . | 5 | drops. |
| Acetic Acid, . . . | 4 | ounces. |

In hot weather he used half the quantity of all the chemicals. All were measured in the graduate and *not weighed.* He used the light chocolate-tinted plates; the best he ever had was the Phenix, which he had purchased of Benjamin French & Co., of Boston; never was troubled with fog, and used a 40-grain bath.

Mr. Rowell stated the best compound he had found for cleaning glass was *nitrate of mercury.*

Mr. Ritz stated he used cold potash and nitric acid.

Mr. Adams, of Chelsea, was elected a member of the Society.

Mr. Black wished the boys to get ready for the next national convocation at Buffalo, and expected a large number would attend from the New England States.

After many interesting matters were discussed, the meeting adjourned to meet again on the evening of the first Friday in May; and the Secretary wishes me to state in this article that if *any photographers in New England* do not receive a notice of the next meeting, they must consider this as an invite to attend; *so don't forget it;* first Friday in May, at the studio of J. W. Black.

Yours, in haste,

Vox.

## THE BROOKLYN PHOTOGRAPHIC ART ASSOCIATION.

A LARGE and enthusiastic meeting of this Society was held on April 13th, at the gallery of Mr. Alva Pearsall, Vice-President Harvey in the chair, B. F. Troxel, Secretary.

After the usual form of opening, five new members were proposed and accepted.

The Corresponding Secretary read a letter from Messrs. Benerman & Wilson, presenting to the Society six cabinet photographs, by Fritz Luckhardt, of Vienna, Austria.

A vote of thanks was passed for the same. The pictures attracted considerable individual interest, and received a good deal of criticism *pro* and *con*, but upon the whole were accepted as being of a very high standard.

The Secretary also read a circular in reference to the *Philadelphia Photographer.* The Chair made some remarks in praise of the latter publication, and said that every member of the Society that was not already a subscriber should become one at once, as it was not only to the interest of every photographer, but also every association, to support a journal of such high merit.

A paper on "Chemical Manipulations and Lighting," by Alva Pearsall, was read and received with applause, a unanimous vote of thanks being passed for the same.

Mr. Anthony Berger also read a paper on "Retouching Negatives," and illustrated the fundamental principles of retouching by pencil drawings.

Mr. Charles Williamson exhibited a very fine drawing of a child's head made by himself, using the lantern and a transparent positive.

Mr. F. H. Eales exhibited a number of excellent lantern slides, both views and portraits.

Mr. Alva Pearsall exhibited a camera box, arranged with green glasses, upon Mr. Newton's plan of shortening the exposure. After inquiring if any of the members had tested the idea, and none replying that they had, he gave his experience in experimenting with it, and said he had failed to produce anything satisfactory, trying glasses of different shades of green, and in every instance there was a perceptible fog, and to this alone was due the shortening of the exposure. The negatives were worthless, and he condemned the principle, having tried all the different methods lately proposed upon this subject. Some discussion ensued, and the sense of the meeting coincided with Mr. Pearsall's views. The meeting then adjourned to the second Monday in May to meet at the same place.

## Chemical Manipulation and Lighting.*

My object in writing upon this subject is simply to defend the chemical manipulator or operator, as he is usually termed, it having suggested itself to me by reading two or three articles in late publications, that did not coincide with my experience in the management of chemicals and the light.

It is surprising what a change has taken place within the last few years upon this subject. Formerly, chemicals were the great desideratum to the production of a fine negative, and all thought and study were centred upon this branch, with formulæ *ad infinitum*, and so completely were the minds of the majority of photographers absorbed upon it, that lighting and posing were wholly or quite ignored.

The tables are now completely turned, and lighting seems to occupy the photographic mind to the same extent that chemicals did formerly. The photographic publications of the last year or so have been filled with the subject, and many photographers have become so enthusiastic upon it as to quite ignore the value of fine chemical manipulation.

* Read before the Brooklyn Photographic Art Association, April 14th, 1873.

I have heard a noted photographer exclaim, "Give me a man that can make a clean negative, free from streaks, &c., and I will do the rest under the light," claiming for himself all the merit due to a fine production. *The Year-Book of Photography* for 1873, has an article entitled the "Artist and Workman," which was written by a photographer who has, within a very few years, become quite prominent from the position he holds in one of the very first galleries in this country. Now, either from very great modesty, or a very great desire to flatter the artist and his co-worker, he disclaims all merit in the production of a fine picture, yet he has the confidence and ability to write a book on photography, to disseminate knowledge among the fraternity. Now, why does he assume this anomalous position?

I make the following extracts from the article in question:

"In an exhibition was a splendid photograph by a great artist, whom I shall call Brown; the subject was grand, the pose beyond reproach, the drapery artistically faultless. The exquisite gradation of light and shade was marvellous." (As no mention is made or credit given to retouching the negative, it is presumed the negative was not retouched.) To continue: "The negative of this photograph was made by an operator whom I shall call Robinson. It was a masterpiece.

"Oh, dear! the praise that Robinson got for that picture. Why Robinson could no more have made that picture than he could have jumped over the moon. To Brown and to Brown alone was due the credit."

Now, while I grant that Robinson may not have been able to make the pose and lighting of this "splendid photograph," I do claim that he was entitled to a share of the credit due to its production.

"The exquisite gradation of light and shade was marvellous." Robinson could easily have destroyed this exquisite gradation by the manipulation of his chemicals, and instead, made the lighting short, patchy, and hard. He must have had a feeling in common with Brown, and prepared and manipulated his sensitive plate so as to give an image that would harmonize accord-

ingly, otherwise all of Brown's labor would have been in vain. Again, this article says:

"No, no, kind friends, let the artist do his part of the work properly, and any chemicals in good working order will make splendid work." This I grant, providing the chemicals have intelligent manipulation, but not otherwise. From the same book I make another quotation from an article entitled "The Requirements of Photographic Portraiture."

"The knowledge of photographic chemistry is soon acquired, and it must be the study of the devotee to perfect himself in the lighting and posing of his sitters." The latter part of this advice is good enough in itself, but why should it be given in such a manner as to underestimate the importance of as much study in chemicals and their manipulation? I have made these extracts to show the tendency of the times to ignore the value of fine chemical manipulation in conjunction with lighting.

Now, I hold it is not only wrong, but absolutely pernicious to advocate such a doctrine. Wrong, because it lowers instead of stimulates the pride an operator feels in producing a fine photographic result; and pernicious, because if practiced everywhere, photography would go backward instead of forward.

There should be no antagonism between the two positions; neither one should hold sway over the other, but both alike should receive the same study, care, and attention, as one is vital to the other; and to produce a perfect result there must be absolute harmony between the two, one adapting itself to the other by intelligent manipulation. The truth of this is more apparent to those who manage both the light and the chemicals. The very best possible lighting is easily destroyed without it; for although you may, in every instance, discover the direction of the light, the intensity and distribution of it may be wholly changed.

I maintain that the manipulation of chemicals is of more importance than the formulæ. By manipulation I do not mean simply the production of a clean chemical effect. This is the A, B, C, or first step. But *intelligent manipulation is the power of the mind over the hand to bring forth whatever effect you may desire.* This was illustrated at our last meeting, in the paper on "Development," showing the various effects that can be produced by the same formulæ.

The collodion is no exception to this rule, and one sample can be made to produce quite as many different results, for instance:

We will suppose in every case the subject receives the proper intensity and distribution of light, and the sensitive plate the proper exposure. We prepare a plate by flowing the collodion on and off quite rapidly, at the same time holding it nearly upright, and rocking it to and fro while draining; such a plate will give a film of uneven density. Now, if we immerse it in the silver solution rapidly, and before it is quite set, and keep it in motion, and remove it from the bath as soon as the oily lines disappear, the result will be a film that no amount of caution in developing will prevent the image from being hard, and at the same time thin, and devoid of good printing qualities.

We will flow another plate, holding it nearly horizontal, pouring on and off quite slowly, and moving the plate gently from right to left, as it drains, allowing the collodion to thoroughly set. (The best test being when the finger leaves an impression on the film that is simply on the surface.) Now immerse this plate in the bath with a steady, slow motion, moving it about for a moment only, and allowing it to remain for four or five minutes after the oily lines have disappeared. This film will give an image that will be easily managed under the developer, coming up boldly, but soft and delicate, full of detail and a peculiar bloom, and while appearing thin, will have fine printing qualities.

Again, if the collodion be set too dry, the result will be a negative full of detail, but thin, and the image will simply be on the surface; and while you may improve it in managing the developer, it will never give what may be called a good print.

A plate should never be hurried into the bath nor hurried out. I find it much better to keep two or three plates sensitizing at the same time, to avoid any possibility of this in your anxiety to have a plate at the proper moment for exposure.

On the other hand, as to lighting, a sensitive film in its proper condition, exposed to a subject too violently lighted, giving too great a contrast to the light and shadow, cannot be remedied with chemicals, and had better be dropped into the sink at once (although such a lighting can be modified by overexposure), and a plate that is underexposed, if it be only two or three seconds, is worthless and had better be consigned to the same fate. I do not believe in forcing or redeveloping under these conditions; in fact, I don't believe in it at all for portraiture. In my opinion more negatives are ruined than improved by it. It is much better to overexpose a sensitive plate than to underexpose it, as it is more easily managed under the developer, and the rendering of the details in face and drapery are much finer and softer.

Collodions made with certain kinds of cotton, work strong and vigorous, and with other samples give the contrary effect, making the subject appear in the negative, on developing, as if it had been in the first case too strongly lighted, and in the other too weakly lighted. Good results can be obtained in either case by manipulation of the light and chemicals.

From the consideration of these effects, attainable at will, it is obvious *there must not only be an intelligent manipulation of the chemicals as well as of the light, but a certain harmony must exist between the two*, in order to obtain perfect results.

This is the secret of success, and not chemicals nor formulæ, nor lighting in themselves individually, but in their harmonious combination, each adapting itself to the other.

So in our enthusiasm for light, don't let us strive the less for knowledge in chemical manipulation, nor fail to give credit where credit is due. By so doing we will stimulate and encourage those that work with us, and make them feel an interest in the part they take in the production of a "splendid photograph."

ALVA PEARSALL.

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## OUR EXTRA PRIZE OFFER.

OUR extra prize offer has had a good effect, but not the effect of securing the number of subscribers we stipulate for in order to enable us to enlarge our magazine. So much encouraged are we, however, that we have *extended* the time to July 1st, so that our offer holds good for two months more. The premiums we give are really worth $5, as you may judge from the reports of societies upon them, and from a few extracts given below from the letters of those who have *worked for and obtained* them.

AMERICAN INSTITUTE,
NEW YORK CITY, April 4th, 1873.

MESSRS. BENERMAN & WILSON:

I have the pleasure of acknowledging the receipt of a package containing six cabinet pictures of ladies, by F. Luckhardt, of Vienna, Austria. In accordance with your request, the pictures were presented to the Photographic Section of the American Institute, at its last meeting, April 1st, where they elicited unqualified praise from the members present.

The high artistic merits of the pictures, and their great value as studies for the progressive photographer, were conceded by all. The general harmony in the details of each print, the management of light, and beautiful rendering of texture, were greatly admired.

I have the honor of transmitting to you the thanks of the Photographic Section of the Institute, which was expressed by a *unanimous* vote.

Allow me, while thus officially announcing the action of the Section, to express to you my own thanks, as a member of the profession, for the opportunity which is by your liberal offer given to all for observation and study, of the finest examples of photographic work.

Most respectfully yours,
O. G. MASON,
Sec. Photo. Section American Institute.

MANKATO, April 14th, 1873.

I think when we say they are splendid, it is only a mild expression of what they will bear. Please accept many thanks for them.

Mr. Wysong, my new sub, says he is bound to have a set of them, and is hard after some one that he may get them soon.

E. F. Everett.

We have many more such as these.

## WAYMOUTH'S IMPROVED VIGNETTING PAPERS.

Vignette pictures are not made by many photographers because they cannot shade them properly. All sorts of clumsy blocks, colored glasses, cotton, tissue-paper, &c, are used, but generally with ill-success. the shading being either without gradation or blending, or showing a decided line and one even tint all through, as for example the pictures in our last number. A vignette picture, properly printed, renders the shading in a regularly graded effect from the darkest part near the figure, off to nothing as it enters the light background. This is hard to accomplish without very careful time-taking attention.

Mr. Waymouth, of Nailsea, England, has invented an *improved vignette paper*, which makes vignette printing as easy as ordinary printing; and since our publishers present a sample with each issue of our magazine this month, we only have to refer our readers to the same, and ask them to try them and verify what we say. We have given them very careful trials and are delighted with the results. The papers are lithographed from very expensive drawings, and printed with the utmost care, and we are sure that photographers who have enough artistic feeling to like vignettes, will thank Mr. Waymouth for his invention. Our publishers have purchased the copyright for America, and offer them to our readers at a low price, in their advertisement, which will be found in the proper place.

## THE FERROTYPER'S GUIDE.

Another new work on the ferrotype is announced by Scovill Manufacturing Company, New York, publishers, and with all due respect to our own publication on this subject, and to that of another, the *Guide* seems to be in many respects superior to its predecessors. The large edition of Mr. Trask's work was exhausted in a remarkably short time, and as it is out of print and no more to be had, the *Guide* will come very good. Already several thousand copies are ordered for Europe, where the Phenix plates seem to have created a demand, and the demand in this country is also great. Even if you have the other work you want this. Each page gives evidence that the author is equal to the emergency, and having had others go before him he steers clear of their blunders, and gives us a perfect little gem of a book. It is written in popular style, and will do photographers as well as ferrotypers immense good to read and study it. The collodion receipts alone are worth the price of the book. It is amply illustrated, and we predict for it a splendid sale. The size and price are the same as that of Mr. Trask's book, and we hope for it the same favor.

## Anderson's Photo-Comic Allmyknack.

THE announcement of a *comic* work on photography will no doubt strike some of our readers as very comical, to be sure, and they will wonder if our usually sober and scientific publishers have not forgotten themselves and their desires to elevate and improve our art. But this new idea by Mr. Anderson is no trifling or useless affair. Although it is sparkling with wit and humor, side-breaking jokes, and mirth-provoking illustrations in abundance, yet much sound sense and wholesome instruction is included. "All work and no play makes Jack a dull boy," is an old saw we believe in, and so we hesitate not to publish and to recommend to our readers Mr. Anderson's *Photo-Comic Allmyknack. It will do you good* to read it, and benefit you in your business. After fo-cussing a baby or a disagreeable

sitter, or on a dull, rainy day, take it up and read it, and we guarantee a "clearing up" of your ill humor, and the development of amiability. We shall have more to say of it presently than our space will now allow. Meanwhile, buy it as soon as it is issued.

## GERMAN CORRESPONDENCE.

*After-Exposure and the Theory of Becquerel —Washing Prints with Hypochlorate of Lime—Preserving Sensitized Paper—The Formation of Aldehyd.*

The lecture of Mr. Newton before the American Institute has been read here with a great deal of interest, and apparently it has settled the question of the existence of "rayons excitation," and "rayons continuation." I have always doubted the correctness of Becquerel's theory, and Gutzlaff also alludes in his article to these, my doubts, by quoting from the *Photographischen Mittheilungen.* Mr. Prim has recently experimented again on the effects of after-illumination, and although he exposed under a red glass and continued the exposure for several minutes, still he failed to obtain the least result.

A practical result has so far not been obtained from Gutzlaff's publications, although much time and labor have been spent on these experiments. I believe that Becquerel's experiments may be explained in a much more simple way, than by the belief in the existence of "rayons excitation" and "rayons continuation."

Becquerel states that pure chloride of silver becomes colored only in the violet and indigo of the solar spectrum, but if the chloride of silver has been previously exposed for a very brief time to daylight, it will be colored also by the yellow and red rays and will blacken into the red parts of the spectrum.

I explain the matter in this way. By the action of light a little subchloride of silver ($Ag_2Cl$) has been formed on the surface of the chloride of silver. We know, however, from the experiments of Seebeck, Poiteven, Niepce, and Zencker, that this subchloride is not only sensitive to the violet rays, but also for the yellow, red, and green ones. Even Becquerel himself has photographed the whole solar spectrum from violet to red upon a plate of subchloride of silver. The continuous action of the light consists therefore not in an action of the light on the chloride of silver, but in an action on the previously formed subchloride. This is reduced to metallic silver, and the metallic silver forms with the undecomposed chloride again a subchloride, as is explained by the following formula:

$$Ag+AgCl=Ag_2Cl.$$

This suffers again a reduction by the red light, and the process repeats itself.

That this action does not show itself with our iodide of silver plates, and when we employ a developer, is certainly due to the fact that the coloration of iodide of silver by the action of light is so slight as to be imperceptible, and the subiodide of silver which is formed is not affected by the yellow or red rays of the spectrum.

Last year Mr. Newton proposed a shortening of the wash process by means of a lead salt. Lately I have proposed iodine for the same purpose, but the latter salt may prove too expensive for a good many, or when a great quantity of pictures has to be made. Mr. Frierabend, a chemist of Tilsit (Prussia), employs now chloride of lime; he shakes the same with water and makes a saturated solution of it which is filtered quite clear. Of this he takes for every sheet of pictures to be washed, three cubic centimetres of solution, dilutes it to 100 c. c., and dips the fixed pictures which have been passed through three waters into it. The small remnant of hypo which has remained in the paper is destroyed by the chloride of lime, and it remains only necessary to rinse the paper once more in clean water.

Recently I made experiments to ascertain how many changes of water are necessary to effect a thorough washing, and found that it goes much quicker than most people believe. Loescher & Petsch have a washing apparatus which empties and fills itself four times during the night, and their pictures keep faultless. I have their pictures several years old, and traces of turning yellow are rare exceptions. The cistern in which the pictures are placed is very large, and this is

a very important point. Reissig has calculated that if the hypo in the paper is diluted to such an extent that the solution has only the strength of 1 grain hypo to 1 million grammes of water, the quantity adhering to the paper will not affect the print injuriously. Now, in taking a print out of the water, about 25 grains of fixing solution will adhere to it, which contain about 5 grains of hypo. If we would employ only one quantity of water in order to dilute the hypo to the desired standard, we would require 5 million grains equal to 5000 litres. But the case is quite different when we remove the sheets from one water into another. One thousand c. c. of water, equal to 1 litre, would at once reduce the hypo 40 fold; if this is poured off and another litre of clean water is taken, the reduction becomes 1600 fold, with the third litre we reach 64,000, and with the fourth, 2,560,000; we have reached now the necessary dilution, and I have, in fact, been unable to trace any hypo in a paper by employing chemical tests, after it had been passed through four changes of water. This refers, of course, to but one sheet; if more sheets are in the bath. more water and more changes will be necessary; but with ten sheets and eight changes of water I succeeded in removing the hypo, provided the quantity of water was large, and care was taken that the sheets did not stick together.

Some years ago Mr. Lea recommended to employ blotting-paper, saturated with carbonate of sodium and dried, for the purpose of keeping sensitized albumen paper white for some time. The suggestion is a very good one. The late Mr. Grasshoff tried it, and found that it worked well. Many photographers employ the carbonate of sodium paper for the purpose of keeping the sensitized paper, and it never fails.

Lately Mr. Schwier observed that the carbonate of sodium paper injures the negatives. He noticed brown spots, which are increasing gradually, and these spots only show themselves in the frames in which carbonate paper has been used. It is possible that the carbonate of sodium acts on the varnish, and different varnishes may be affected differently, for Mr. Prumm told me that he has not noticed these spots, although he also employs carbonate of sodium paper.

One of my correspondents, Mr. Feyerabund, has made a curious observation. It is the formation of aldehyd ($C_4H_4O_2$) whenever an alcoholic silver bath is treated with permanganate of potassium. It is sometimes mentioned in photographic journals that treating a bath with the permanganate does not always give good results, but produces fog, and even the addition of nitric acid will not remove this tendency. Nobody knew how to give an explanation of this fact; now it is demonstrated by Mr. Feyerabund that aldehyd is the cause. Aldehyd is a reducing agent; it reduces silver salts, and hence produces fog. In order to remove the aldehyd the bath should be warmed to about 150° Fahr.

Yours truly,

Dr. H. Vogel.

## THE EXHIBITION.

One very prominent object of our Association is, as in effect stated in the preamble to the constitution, to promote the production of the best class of photographs; to this end the Exhibition is established, which it is expected will call out the best work of the best photographers at present standards; and all are invited to bring samples of their best work, so that not only shall there be an interesting variety, but means of comparison be furnished on the spot, whereby each man can ascertain where he stands. Very wisely no official judges, nor medals, nor premiums, nor awards of any kind have been instituted (with the exception of the case of foreign exhibitors), but every man can form his own opinion, according to his degree of taste, and the dangers of a wire-pulling competition are avoided. In this respect it is devoutly to be hoped that the conduct of the exhibitions may never be changed, but in view of the facts elicited by four years' experience, it seems worth while to inquire if anything could be done to bring out a larger number of exhibitors, for the one conspicuous fact is, a great reluctance among photographers to place their productions on view. Why is this? Many

remark, "Well! I have got just as good pictures at home as most of these." Why, then, are they not brought? Is it from lack of interest? I think not. Having talked with many on the subject, I am of the opinion that the real cause is that *the men of smaller means find themselves overshadowed by the owners of more wealthy galleries.* I hope to give offence to no one by this or any following statement, but it is this way: A. has a large gallery; he is a zealous and enthusiastic member of the National Photographic Association; he sends to the Exhibition many large boxes, at no inconsiderable expense to himself; the contents are mainly "finished large work," in showy frames; they are placed all in one lot, and a sign erected, "From A.'s gallery in L." The consequence is that C., who perhaps can produce a better photograph than any in the collection of A., is not a little humiliated at the appearance his few frames of photographs make, is inclined to be sorry he sent anything, and next year stays away as an exhibitor; and not only is this effect wrought on C., but on almost all the rest of the alphabet, till the Exhibition has fallen into the hands of comparatively a few.

Let us look at this matter a little closer. Will any one pretend that a photograph, "finished" in oil, or in crayon, or in water color, or in ink, is any longer a photograph at all? Is not the genius of the photograph eclipsed in the precise ratio of the amount of hand-work that has been placed upon it? The effect may or may not be praiseworthy, but in either case the photograph is reduced to a secondary rank, has become a mere substratum, is perhaps totally covered up.

Does, then, the exhibition of such pictures promote or encourage the production of fine photographs? If so, it must be in a very secondary and remote way; and is not oftener the tendency to degrade the photograph and the photographer, both in the public estimation and in their own aims. "That will do," is often the excuse for a poor negative when any kind of touching up is to support either the negative or the print. We have a good deal of talk about art, and call ourselves artists; the propriety of the term in many cases may be an open question, but we can, as a body, become such, only by adhering to our legitimate productions, and trying to make photographs with the least possible bolstering with the pencil.

Besides, a photographic print ought never, for its own sake, to be hung on the same wall with this "finished work." The glaring oils, the heavy black crayon heads, and smoothly stippled gaudy water colors, diminish the effect of pure photographs; and when the former are large, and in flashy frames, they kill the latter quite. This kind of work may be profitable to its producers, it may take the eye of the public, and make a fine advertisement, it may be even artistic in a true sense (though mostly it is not), but it crushes the photograph, it discourages photographers, and defeats the prime object of the Exhibition. Moreover, the different varieties of these kinds of work are not with any mutual advantage placed together. Oils do not well contrast with crayons or water colors, or any of the above with either of the others.

Whatever course the immediate selfishness of individual photographers may dictate, the way out of these difficulties is clear and simple. It is a way that will be just to all parties, that will enlighten the public as to the true merits of photographs, that will improve the general effect of the Exhibition. Instead of having the work classified by galleries, let the arrangement be to place each kind of picture by itself. First the photograph, then each variety of pencilled work by itself. The photographs should be subdivided into silver and pigment prints, these again into portraits and views, the former, perhaps, into absolutely plain, and that from pencilled negatives, direct prints, and enlargements, genre subjects, and simple likenesses. The views having the subdivision of stereographs. A sort of catalogue might be issued to visitors descriptive of these classes, and conveying some general idea of the method of production; by this the public would be not only interested, but what is of great consequence to us, educated.

Is it not obvious, at a glance, that this is the only correct way of arranging the Exhibition?

In conclusion, I would wish it to be distinctly understood that I do not stand in

my present position as Local Secretary to carry out any pet notions or crotchets of my own, but more or less as the servant of the Association; and that, as far as I can understand my own motives, my advocacy of these views is based solely on the idea that such a plan will best serve the objects of its existence, and conduce to the greatest good of the greatest number. Feeling that such a plan would have the approbation of and increase the interest shared by the majority of our working members, I should, with their support, be only too happy to undertake the increase of labor it involves. If, on the other hand, such ideas do not impress others as being of the vital importance to the National Photographic Association that they seem to be to me, I will, with equal alacrity, endeavor to do my best according to former precedents, hoping that in time the majority will adopt such views, and enforce them by an amendment to the by-laws. The time is now somewhat short to obtain a general expression of opinion, but if those interested, and especially those intending to exhibit, will take the trouble to send me their views, or to name them in this journal, sufficient data to form my course upon can, I think, be had. Nor need any fear either that the wishes of the majority would be disregarded, or that a profitless discussion would be opened in these pages, for it is not my desire to have an argument about this matter with any one, as my opinion is already fully stated, and I now only wish to hear the general voice. Please speak distinctly and generally.

W. J. Baker.

## THE EDWARDS PROCESS.

We have had a great many letters from our subscribers concerning this process, since our last issue, and a number have purchased the secret for themselves. We know no more what that secret is than we did a month ago, but having since seen still finer results from those who are working it, our opinion that it is a good thing, is confirmed. We have heard but one opinion concerning it from those who have purchased it, and that is of unqualified satisfaction and praise.

Still, in order to reassure the skeptical, and to prove to our readers his entire willingness to have the results by this process compared with those obtained by any other, the agent presents you this month with a reduction and an enlargement by the process, from one of Mr. Rhoads's negatives of a little child. Neither of these prints, it will be remembered, are from the original negative. There were on the original plate two negatives, one of which had been retouched. From this a number of negatives, reduced to a trifling extent in focussing, were reproduced, to make the large number of prints required. In the case of the enlargement it was desirable, for the sake of demonstration, to have no retouching at any stage of the process, and the other negative on the original plate was therefore selected for this purpose. This was not so sharp as the other, and the expression of countenance less pleasing; but the reproduced large negatives retain perfectly all the detail, and are, in fact, exact, but enlarged, reproductions of the original. Of course, retouching would greatly improve them, as it would any negatives by any process.

The original negative was made in three seconds. From it any size up to life size may be made. By what other means can we obtain such a picture of a baby in three seconds?

It will be readily seen that the parties concerned have not chosen the very best subject in order to illustrate the process, in the one sense. In another sense they have. For while a picture of a beautiful woman might be more attractive, it might be shown that it is possible to get the picture of an adult of any size, if she but sit still, but of an infant, who would attempt to make a large picture of such an incorrigible subject? It could not be done, even with so good a baby as this one appears to be.

We have had many inquiries as to whether the process is really new; whether it is not a modification of some other process, &c. Not knowing the process, we cannot answer these queries except by saying that all with whom we have conversed on the subject, pronounced it to be quite novel in

its principles; and the published testimonials quite confirm this fact. This is also borne out by our contemporary, the *British Journal of Photography*, December 20th, 1872, p. 600, which says:

"At the last meeting of the South London Photographic Society, an agreeable part of the 'bill of fare' provided for the members consisted in the exhibition of a variety of enlargements by Mr. B. J. Edwards. A special feature in connection with this collection was, that these prints were quite untouched, having been exhibited in the same condition as they were after being removed from the washing water and dried. Even in this state, but for the presence of one or two white specks, arising from imperfections in the paper, or being possibly in the original *carte* negative, these pictures might, all untouched as they were, have answered for being mounted and framed. We mention this to give some idea of the great perfection in which the close of the year finds the production of enlargements. The process by which these specimens were produced is at present a secret one in a certain sense; but, having seen the various manipulations, we are in a position to say that, while it is simple, it differs in some of its details from any others with which we are acquainted."

In regard to the simplicity of the process, it is also stated in the same journal for March 7, 1873, that "Any one who speaks of Mr. Edwards's process as being 'very complicated,' must do so in entire ignorance of the process; for it is, on the contrary, quite as simple as it is excellent."

## PHOTO-MECHANICAL PRINTING PROCESSES.

It is surprising to see the many apparently different methods of printing photographs in printing-ink that are being heralded by industrious inventors and others, which in reality are based upon one simple idea, the original of which is the Albertype.

Early in 1868, Mr. Joseph Albert, the court photographer at Munich, Bavaria, discovered a method of securing the film of gelatin, from which these pictures are printed, to the plate upon which it is spread, and hardening it, so that a large number of impressions could be obtained, by which he solved the problem of utility and durability. He had for a long time experimented, with this object in view, and had kept a record of over a hundred different methods and over seventy different materials that were used and abandoned, when the happy thought occurred to him to make use of the sensitive qualities of the chrome gelatin itself for a cement.

It is well known that the moisture to which these gelatinous films are subjected would penetrate entirely through, and the film become detached from the plate upon which it is spread, were it not for this method of hardening it by exposing the back to the light, which makes it so insoluble that moisture will not penetrate through at all; he also treated the same film to chrome alum, chlorine water, and other coagulating or tanning solutions, which had the effect of toughening it in the parts that were not exposed to light; and by these methods it became possible to print *thousands* of good impressions from one plate.

Of the many modifications of this invention, none have been successful that did not use some of these methods for securing durability.

Experience has taught that the maximum of durability is produced by spreading only a part of the solution required to make the film, and hardening or coagulating this to a greater degree than would be possible if the whole were spread upon the plate at once, but still retain the surface in a sufficiently adhesive state to unite with a second coat of sensitive solution, and the two thus become one homogeneous film.

This method of dividing the solutions is in practice by the proprietors of the Albertype patent in this country, and they have printed *over four thousand impressions* from a single plate.

This patent covers the use of a cementing film to attach the gelatin to the plate, the hardening of the back of a film by exposure to light whilst the face is protected with a dark underlayer, and the use of chrome alum, chlorine water, or other coagulating material in hardening the gelatinous printing films, &c.

The "Photo-Plate Printing Company," of New York, under the management of Mr. E. Bierstadt, and the "Albertype Printing Company," of Boston, are the sole proprietors of this patent, which they have secured at great cost, and they are justified in defending it against infringements.

Should the photographic fraternity be invited, by patent venders and others, to invest in rival processes, it would be well for them to remember that their right to work the processes may be contested. As we have seen such processes offered for sale, we thought it desirable to caution our readers.

## Proceedings of the Executive Committee.

THE Executive Committee of the National Photographic Association met at No. 4 Beekman Street, New York, on Tuesday, April 21st. Present, Messrs. Bogardus, Adams, Rhoads, Wilcox, and Wilson. The business of the coming Exhibition occupied the main portion of the meeting, a full report of which will be given in our next number.

Mr. Jos Buchtel, Portland, Oregon, was accepted as a life member.

Among other things, it was resolved that by the passage of the former resolution, requiring dealers, &c., to pay ten dollars for their space at the Exhibition, that the committee did not wish to deter *any one* from exhibiting, and if parties who find the charges grievous will apply to the Executive Committee for other terms, they will be given attention.

Matters of very important interest to every photographer in the country were discussed, a report of which will appear as soon as they develop further.

EDWARD L. WILSON,
Secretary.

# Editor's Table.

WE recently had the pleasure of a visit to Mr. W. H. Rhoads's studio, at No. 1800 Frankford Avenue, Philadelphia. We say *pleasure*, because it *is* a pleasure to see such a neat, tidy, prosperous place. The dark-rooms and skylights, under the care of Messrs. Smith and Quimby, and the printing-room, in charge of Messrs. Marston and Sutter, are models, and Mr. Rhoads is another.

OUR friend, Mr. E. Liesegang, Elberfeld, Germany, desires us to state that in the month of May a permanent exhibition of photographs will be opened in his rooms at Dusseldorf-on-Rhine. American photographers are invited to send specimens of their work; and we hope they will do it.

MRS. M. M. GRISWOLD has sent us a number of formulæ left by her lamented husband, with permission to give them to the fraternity. We hope to do so as soon as the pressure upon our space will permit.

SUPERIOR ALBUMEN PAPER.—In noticing the paper on which the picture of Mr. French was printed in our March number, we failed to give Mr. Gennert's address. It is Nos. 64 and 66 Lispenard Street, New York. The prints certainly recommend his paper very highly.

MR. H. ROCHER, Chicago, Ill., is making a series of magnificent cartes of celebrities, which are exquisite, and fine studies for any photographer. Messrs. Lovejoy & Foster are his agents, whom address for copies. See advertisement. Photographers should avail themselves of this opportunity.

MR. L. G. BIGELOW'S address is Grand Rapids, Mich. He called on us a few days ago on his "missionary tour," and showed us a very ingenious "print-washing machine," which will be introduced soon. He also showed us some prettily printed "cloud effects," from his own original designs, and negatives which he sells so that any one can use his method. Address him for particulars.

MR. WILLIAM BELL, 1200 Chestnut Street, Philadelphia, has favored us with a sight of his grand views of the Colorado and Nevada scenery, taken on the recent United States expedition,

under the charge of Lieut. Geo. N. Wheeler, U.S.A. They are the fruit of much labor, and are a great credit to Mr. Bell.

THE CENTENNIAL.—If there are any of our readers, especially in this State, who are patriotic enough to subscribe to the Centennial stock, we should be glad to hear from them. The shares are $10 each, and $2 on each share are payable now. The Committee on Photographic Collections are Messrs. Edward L. Wilson, Chairman, William H. Rhoads, James Cremer, and George H. Fennemore. You will all want to exhibit in 1876, and will eventually be proud to own stock in the great Exhibition.

A JOURNEY TO EGYPT AND THE HOLY LAND IN 1869–70. By Henry M. Harman, D.D., Dickinson College. Philadelphia: J. B. Lippincott & Co., publishers.

This is one of the most refreshing and satisfying books of travel that we have read. It is a plain narrative of what a traveller saw, who went on purpose to see and to learn. Photographers who give lantern exhibitions will find it a very useful reference for descriptive matter for views in all parts of Europe, Egypt, and Palestine. We have enjoyed it much.

NEW CATALOGUE.—Messrs. R. Newell & Son, the enterprising commercial photographers, No. 626 Arch Street, Philadelphia, have just issued a large and beautiful catalogue of their views, of stereoscopic and larger sizes. Some of the latter readily sell in stores and galleries, and dealers in any of them would do well to consult this catalogue. From personal examination we know that the variety is beautiful.

MR. ISA BLACK, Franklin, Pa., called upon us last month and showed us some examples of his work which astonished us. Mr. Black is a young, studious, and enterprising photographer, and his work does him great credit. One picture, of a lady in white dress, is particularly fine.

ITEMS OF NEWS.—The *Carbon Democrat*, Mauch Chunk, Pa., has quite an extensive notice of the extensive stereo and view establishment of Mr. M. A. Kleckner, of that city, who has some 35,000 views already printed for his summer sales, of "the Switzerland of America." Mr. Kleckner's work is first-class.—Mr. J. J. Burke, Canton, Miss., sends us a photograph of the remains of his gallery after a violent tornado had nearly demolished it, which he calls "a photograph of a well-ventilated skylight. It is *principally* ventilated."—The *Exchange and Market*, edited by D. N. Carvalho (an ex-photographer), box 3983 New York, offers to insert advertisements for operators wanting situations free of charge.—Mr. L. W. Seavey, the world-renowned background painter, so many years at 684 Broadway, New York, has removed to No. 8 Lafayette Place.—Mr. C. D. Mosher, Chicago, has issued a little work called "Chit-Chat with my Friends," which he sells for 50 cents. It is well written and neatly printed.—We sent twenty-five Bigelow Albums to Germany last month.—We have sent a circular to all the important passenger agents of railroad companies, asking for terms for our fraternity to Buffalo and back. Go see them, and help us.—Mr. H. L. Bingham, Kalamazoo, Michigan, cautions photographers against one Mrs. E. G. Nunn, *alias* Miss E. Grace, &c., &c., who offers herself as a colorist, and who is not entitled to any such rank.—At the third lantern exhibition of the Philadelphia Photographic Society, given recently at the Franklin Institute, some splendid slides were shown made by the Edwards process.—Wilson, Hood & Co. offer to burnish "any card" sent them with the Weston Burnisher. Mr. Albert Moore, Treasurer N. P. A., sent them a whole pack of much-abused playing cards "to burnish." They remain "untouched," "unburnished."—Messrs. Zimmerman Bros., St. Paul, Minn., have sent us a very neatly printed price list of their goods. This is enterprise characteristic of them.

VISITORS to the Vienna Exposition who examine the magnificent pictures sent there from the studio of Mr. William Kurtz, New York, must not forget to examine the rich and elegantly designed standing-frame on which the pictures are hung. It was made from designs drawn and originated by Mr. Kurtz after much thought and careful study, and should itself stand as a competitor in the class to which it belongs. The whole thing is so elaborate that it will not only attract attention, but it will also have many imitators, the same as many other of Mr. Kurtz's originalities have had.

A VISIT TO NEW YORK.—After our duties as Secretary of the Executive Committee were done in New York last week, we visited several places of photographic interest, a more extended notice of which must lay over until our next. Among them was the Photo-Plate Printing Company (Albert's process), the American Optical Company's Apparatus Works, and several photographic galleries in Brooklyn. At the American Optical Company's works we saw some magnificent boxes with new movements, and among them a view box, measuring laterally only 1½ inches, a perfect gem for strength and lightness.

# EDWARDS' ENLARGING PROCESS.

**$30.** PRICE, THIRTY DOLLARS. **$30.**

## NOTICE.

***Specimen of Enlargement, and transparent positive to illustrate the above Process will be forwarded on receipt of $2.00.***

Owing to the universal demand for this Process, by Photographers residing in all parts of the country, and owing to the impossibility of the agent visiting them in anything like the required time, he finds it necessary to make such arrangements as will overcome this difficulty and enable them to obtain it forthwith. To effect this object, he respectfully requests Photographers to apply for specimens, which will at once be forwarded on the terms advertised above, together with such information as will enable all interested to test for themselves the merits of the process.

To forward this arrangement as much as possible an enlargement by this process is here presented to the subscribers of the *Philadelphia Photographer.* This is cut down to adapt it to the pages of the Journal, but it may in the estimation of some give sufficient idea of what can be accomplished, as to save them the expense of applying for a larger specimen print. It is however strongly advised that those who have a desire to look further into the process before purchasing, should apply for a glass positive which will be sent by mail for $1.00. From this they can make a large negative by following the instructions which will accompany it. This trial it is felt assured will prove satisfactory to them.

All those who purchase will have the fullest information respecting the working of the process furnished them, and if any further correspondence is required, it will be entered into, *and continued until each purchaser is quite proficient.*

This is a Process which every Photographer should have, the smaller his business the more necessary that he should avail himself of the advantages it possesses, and the saving of expensive apparatus it effects, and the price required for it is sufficiently low to bring it within the reach of all.

Photographers purchasing under this arrangement, will not do so in any way on more disadvantageous terms than those who have dealt with the agent personally, as those have only had the same opportunity afforded them of seeing what the Process will do, and have had to use their own judgment as to its merits, and the truth of the representations made concerning it, as the entire working details of the process have not, of course, from the nature of the transaction been disclosed, until it has been absolutely purchased.

The testimonials which follow, will fully substantiate the statements made in this notice.

***Address***

R. J. EVERETT, P. O. Lock Box 55,

**NEW HAVEN, CONN.**

☞ *Please refer to the other advertisements following this.*

* *

(OVER)

## IMPORTANT IMPROVEMENT IN ENLARGEMENTS.

# EDWARDS' NEW PROCESS

*Is the* ONLY *process which produces satisfactory results.*

*It is simple and easy to work, and requires no expensive apparatus.*

(See Testimonials.)

This unrivalled process is now offered to photographers on the most reasonable terms. It has already received the unqualified approbation of many of the first photographers of Europe and America, who acknowledge that it furnishes the means of producing results far superior to any heretofore known, and it is winning new friends here daily.

Enlargements produced by this method possess all the delicacy of texture, and are superior in definition to large negatives taken direct from life. Very little retouching or finishing is required on either enlarged negatives or prints.

The discovery of this process of producing perfect enlargements from small negatives by a rapid and simple method will, it is believed, inaugurate a new era in both landscape and portrait photography, and be the means of obviating the necessity of using the large and expensive, and also imperfect, instruments now used for making large pictures direct from life.

It is well known that, owing to optical difficulties in making large lenses, large portraits taken direct require a much longer exposure than those of a smaller size; and, while the large picture is less perfect in lighting and definition, the time of sitting is so prolonged that it is very difficult, and often impossible, to obtain a good picture, especially of children. By this new method it is only necessary to take a good small negative, and this can afterwards be enlarged to any size required, the enlarged picture being equally as good as the print from the original negative, and in many respects far superior to a large portrait taken direct from life.

Among other advantages of this enlarging process, the following may be mentioned:

It is simple and easy, and can be worked successfully with very little instruction.

It requires no expensive apparatus, nor any chemicals which are not to be found in every photographic studio.

It does not need special negatives to be taken, but can be used for producing large pictures from ordinary negatives which are already taken, thus conferring great value on the stock of existing negatives, and placing a new power in the hands of photographers, most of whom have already in their possession many negatives which will at once repay many times the cost of he process.

Pictures enlarged by this process do not require to be expensively finished by an artist, as is the case with other methods of enlarging. The plain prints are perfect in themselves if made from good printing negatives.

Aside from the great advantages secured by this ready method of enlargement, it furnishes the means of quickly reproducing negatives of the same, or any other size desired, thus making it possible to multiply prints *rapidly*, and to any extent, and not limiting the number of prints that can be secured from one valuable negative, to the necessary wear and tear of the same, apart from the risk of accident. Thus it may give to a truly valuable negative a treble value. It also affords the means of controling the density of a reproduced negative, while securing at the same time all the detail that can be seen through an original dense negative in a strong light. Thus oftentimes more detail will be shown in a print from a reproduced negative—enlarged or otherwise—than on a print from the original, in consequence of the original negative not having been brought to the exact density required for paper printing. This power of control is therefore to photographers as invaluable as it is indispensable.

Positives made by this process are the most transparent and beautiful that have ever been produced. *Fine in texture, rich in color, clear and brilliant*, and in themselves faultless. For the stereoscope and lantern slides they cannot be equalled. They are made by contact printing in diffused light, thus eliminating the defects due to bubbles and scratches on the back of the glass of the negative, and softening and reducing, to a great extent, the effects due to coarseness of film in the original negative, thus securing *softness*, while at the same time the *full amount* of sharpness possessed by the original is produced in the transparency and subsequent reproduced negatives.

The positives can be printed as well on cloudy days, and a bright day is not essential for making enlargements.

"Mr B. J. Edwards exhibited some singularly beautiful prints on albumenized paper which were described as produced from large negatives. We had carefully examined some of the specimens previously, and have no hesitation in saying that we should never have suspected that they were produced from other than very fine direct negatives unless we had been told. Gradation, modeling, delicacy, force; absence of 'blurring,' radiation, or rope-like hair, all suggested the direct print rather than the enlargement. A secret is involved in the production, which Mr. Edwards considers worth money; and although he is anxious that photographers generally should share in the advantage, he thinks they should be willing to pay for it."—*The Photographic News* (London), October 18, 1872.

## TERMS FOR THE PROCESS, $30.

Specimen Enlargement and positive, by post, $2.00. Positive only, $1.00.

Parties desiring instructions, or specimen pictures, address

**R. J. EVERETT,**
**Agent for the United States,**
**NEW HAVEN, CONN.**

Or,

**JOHN M. BLAKE,**
**4 York Square, New Haven, Conn.**

☞ *See* TESTIMONIALS *which follow.*

(OVER)

# TESTIMONIALS TO THE VALUE OF EDWARDS' PROCESS.

BOSTON, MASS., February 10, 1873.

We, the undersigned, having purchased "Edwards' Enlargement Process, and having made a practical trial of the same, hereby certify that it is thoroughly genuine, and possesses all the advantages to photographers which are claimed for it.

J. W. BLACK, E. L. ALLEN,
FRANK ROWELL, AUG. MARSHALL.

I consider the process of preparing the albumen for ordinary purposes alone worth the price of the process. AUG. MARSHALL.

MR. EVERETT. PHILADELPHIA, March 19, 1873.

DEAR SIR: The process I purchased from you for making transparencies on glass I consider the best process known. In it I possess a means of making enlargements which could not be done by any other means. The process is so simple that any good photographer can work it with perfect ease. WM. H. RHOADS, 1800 *Frankford Road.*

R. J. EVERETT, ESQ. PHILADELPHIA, February 24, 1873.

DEAR SIR: We are very much pleased with Edwards' Enlarging Process, purchased of you, which will prove invaluable to us in making our animal, landscape, and general work. We think that every photographer ought to have it, as it is really a new and novel process. Truly yours, SCHREIBER & SONS.

MR. R. J. EVERETT. PHILADELPHIA, March 22, 1873.

DEAR SIR: I have received your note, asking me to give my opinion as to the utility and practicability of Edwards' process for making enlargements and reproducing negatives. In reply I can state, having purchased the process and given the same a thorough practical test, that its merits are in no way exaggerated. The great advantages to be gained are these: any photographer with a small tube can make a better enlargement by this process and produce a negative with finer printing qualities than he can with any large tube which I have any knowledge of, and is thus quite independent of a large instrument in producing large pictures. Again, the reproduction of negatives is a most useful and important part of the process. Negatives I have duplicated by this process certainly possess more detail, delicacy, and softness than the original, teaching us that we have the same capacity of control in making the reproductions as we have over the original in exposure, &c., and thus doubling our means of producing first-class work. The process as a whole is simple and easy, and will prove a valuable acquisition to every studio. Respectfully yours, A. K. P. TRASK.

MR. R. J. EVERETT. PHILADELPHIA, March 25, 1873.

DEAR SIR: After giving the "Edwards' New Process" a thorough trial, we pronounce it not only all that is claimed for it, but a great deal more. We have been astonished and delighted at the results we have obtained. It is truly a step forward in our beautiful art, hastening the day when we will be master of the situation. R. NEWELL & SON.

PHILADELPHIA, March 19, 1873.

I herewith testify that the process of Mr. Edwards, of London, England, for producing enlarged photographs without solar camera is all that is claimed for it, and useful in many other respects and that I have succeeded with it at the *first trial*, and recommend it as well worth having. F. A. WENDEROTH.

PHILADELPHIA, PA., February 22, 1873.

Having purchased Edwards' Enlarging Process, and thoroughly tested its practicability, we willingly state that while it is simple and easy to work, it is founded on principles new to photographers, and no one who wishes to make large pictures should be without it.

GEO. H. FENNEMORE. (Suddards & Fennemore.)

MR. R. J. EVERETT. PHILADELPHIA, February 24, 1873.

DEAR SIR: We think that the process of Mr. Edwards for making enlargements is all that is claimed for it, or that can be desired. Respectfully, &c., GARRETT BROS.

☞ ***Please read the three pages preceding this.*** ☜

THE

# Philadelphia Photographer.

Vol. X. JUNE, 1873. No. 114.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## TO ADVERTISERS.

As Permanent Secretary of the National Photographic Association we are now crowded with an unusual amount of work, and the nearer the time of the Convention approaches the busier we will be. Therefore, in order to have a freer chance to attend to the thousand and one necessities of our share of the Convention and Exhibition work, we shall strive to issue our July number about the 20th of June, and our August number will be closed before we proceed to the Convention. Advertisers will please pay particular attention to this notice, for to *insure* insertion, the copy for advertisements must be in our hands before June 15th and July 10th.

The proceedings of the Convention entire will appear in our September number therefore, but it will also be issued early, say August 15th or 20th, so that our report will not be much delayed, if any. We think this plan will be more satisfactory to those who cannot attend the Convention than delaying the August issue. After the work alluded to above is over we have another announcement of a plan we have under way, which we hope will result in much good for every one of our readers.

As our magazine is *the only one* that publishes the proceedings of the National Photographic Association promptly, entire, unmutilated, and as an extra gift to its subscribers, we hope orders for extra copies will be liberal and come early.

## THE N. P. A. CONVENTION AND EXHIBITION.

Only six more weeks and the Grand Annual Exhibition and Convention of the National Photographic Association will be about to open for the year 1873. May much success attend it. The prospects are fine and the arrangements, we think, can hardly be better, or better calculated to do good. As the managers grow older they grow in experience.

Further on we give the usual announcements of the Secretaries, which we hope every one will read and give good heed to, as well as to the proceedings of the Executive Committee, and to the various papers on the subject by other thoughtful correspondents. The Executive Committee deserve great credit for their efforts in striving to bring the matters of the Association down to a systematic business basis. Heretofore there has been no regular *order* of proceedings, and at one moment the great body of good men and women would be considering some matter of practical interest, when some other party, just as good but a little more thoughtless, would broach

some *business* project which would get the whole assemblage at sea, the result being a great loss of time Now, the *business proper* and the *scientific* or *practical* discussions will be separated. Twice as much can thus be done, at least, in the same time, and with infinitely more satisfaction.

Another good move is in placing strictures upon those not members of the Association, concerning their admission. We are sorry to say that each year we have observed that no inconsiderable number make nice calculations as to which is "cheapest," to "buy season tickets" or to "join." The former, of course, costs the least money; and as they were admitted to the sessions of the Convention free, thus deriving all the great benefits of the instruction given there, and only had to pay a dollar for a season ticket to the Exhibition, they had a "cheap" time of it. But such procedure is neither noble nor generous, or right, but a *great injustice to the Association.* These Exhibitions and Conventions cost a great deal of money annually, and every man who would share the privileges of them should, *like a man*, come up and pay his share of the expenses. The fees and dues are low enough—*much* lower than those of any other national association we know of, and they must sooner or later be higher. Then, we say, let all good, loyal, patriotic photographers, *men* and *women*, come and *join the Association*, *for life* if they can afford it, and *help support* the best photographic institution in the world, and the one that will do *them* the most good.

If there are those who will not do this, then they have *no business* at the *business* meetings of the Association, and if they wish to share the benefits of the other sessions, then they should be taxed for a part of the expenses.

The charge for the privilege of exhibiting their manufactures, &c., by dealers, was made to head off another class who *use* the Association, but who never contribute to its support. Again, the treasury is empty and the Executive Committee need the money to carry on the affairs of the Association. They could do much more good *for all*, if the means were placed in their hands to do it with. We hope some provision will be made for them at Buffalo. We have no right to expect much from them otherwise. They are constantly on the alert for the interests of the trade, and we *know* are doing a good work, serving both as a preventive and as a cure for many hindrances to your progress.

Come to Buffalo, then, and see for yourselves the workings of the whole affair.

About one month previous to the Exhibition, the Permanent Secretary will issue the usual circular of instructions, concerning transportation, routes, &c. Those not getting a copy may do so on application to him.

## OUR EXTRA PREMIUMS.

We are very much gratified with the earnest spirit displayed on the part of some of our subscribers in getting us *new* subscribers. Those who have received the premium pictures for such service are delighted with them. Witness what was reported of them in the proceedings of the different societies last month, and also a few remarks by others in our last issue and in this.

The *wide-awake* photographer seems to comprehend the *real value* of the offer we make, but as many do not seem to, we state again what our offer is, as follows:

For one *new* subscriber for a year and $5, any of our publications to the value of $1; a set of six Luckhardt cabinet pictures, at least calculation worth $3; total value of premiums, $4.

Employers can well afford to present at least *one* copy of our magazine to their squad of employees, and it will only cost them $1. Employees can club together and get their employer (if he is a subscriber already, and if not, it would pay them to make him one) to subscribe for them and give them the premiums.

Remember, this offer is only to *present* subscribers, or to any person sending his own subscription and another with it. We do not agree to give the benefits of it to any one subscribing for himself. Our object is to benefit our *old* friends and *to make new ones.*

There are those who are in localities

where they cannot even try to get new subscribers, and such have complained that we ought to put a price on the Luckhardt set and sell them, and give such parties the benefit of studying them. After June 1st we will yield that point and sell the set of six, handsomely mounted the same as the premium sets, for $3.

Please read our advertisement concerning this matter and the following:

This day, per mail, have received the half-dozen prize prints of German cabinet portraiture. Please allow me to *withdraw* from any encomiums on them. They *need none*. In short, they are well worth striving for, and the photographers who allow this set to remain outside their collection, really don't deserve them, that's all. Whenever you have another half-dozen equal to these, send them to me with bill.

J. Pitcher Spooner,
Stockton, Cal.

The beautiful cabinets you sent me were received all right, and how can I thank you for sending me such a splendid premium? They are by far the best specimens of photography of white drapery that I ever saw, and the artistic part leaves nothing to wish for. Photographers in this part of the country have no chance to see such fine examples of photography, and you will please accept my kindest thanks for your beautiful prize. Such pictures distributed through the country cannot fail but result in good.

James Paris,
Fond du Lac.

Give one more good pull, and we shall succeed.

## HINTS FROM THE RECORD OF AN ARTIST AND PHOTOGRAPHER.

BY JOHN L. GIHON.

In my last communication I adverted to the fact that I contemplated a change of residence, no less a one than the removal from one hemisphere to the other. Fully aware that such circumstances will necessitate some modifications of the manner in which we conduct a gallery in the United States, I have concluded that it would be probably more interesting, and that it would certainly be a novelty to describe matters of interest arresting my attention, in preference to strictly adhering to my hitherto conceived plan of these articles. In the meantime it may not be amiss to familiarize my readers with the circumstances under which I write. Briefly then, some months since, I accepted a proffered position from Messrs. Chute & Brooks, long ago located in South America. These gentlemen have been successfully practicing photography upon that continent, and are now very much extending their former field of operations. Determined upon joining them as speedily as possible, I arranged for our departure (the party consisting of my wife and child, Mr. Murphy, a gentleman whose capabilities as a printer I take great pleasure in acknowledging, and myself) on or about the first of January, 1873. Although not at all relevant to our purpose I still feel considerable temptation to speak incidentally of the voyage, and trust that the deviation from strictly photographic boundaries will not be unacceptable. Adverse winds, and a great accumulation of ice in the harbor, prevented the possibility of our leaving New York until the fourth of the month. The morning of that day was a most delightful contrast to so many of its predecessors. A clear sky and a beaming sun brightened up the appearance of all that surrounded us, and a fresh breeze gave motion and apparent life to hundreds of inanimate vessels that had been lying like chained logs to the many contiguous piers. Busy little tugboats, pigmies in size though giants in power, were heard puffing and whistling about the shipping. As the ant carries away the comparatively enormously proportioned fly, so did each one of these sturdy little steamers drag from its late berth some well-loaded craft. By midday a perfect fleet was in motion, and although now, for a few hours, all composing it were gliding along in close enough company, before night each vessel was to shape its own course, and it is doubtful if there could have been named any part of the world but could have claimed one or more of us as its expected visitor. Soon, our crew commenced their work, and almost

anticipating each order, loosened and set sail after sail until our little pioneer seemed to have far greater effort to keep from under our bows than to aid us in our course. The city gradually became more indistinct, and the motion of the vessel told us that we were having different waves than those of the river to float upon. Gliding by mark after mark the last buoy and the light-ship were reached; then our tug cast off the line that had connected us; skilfully she neared us, and cautiously approached our stern. The pilot, shaking hands with all, clambered over our rail, then stood carefully watching his chance, then when it had come sprang upon the deck of our little aid, waved a final good-by and left us to our fate. We were started. Brilliant writers have so often claimed the theme of an adieu to one's native shores, that I dare not indulge in sentimentality. I confess that meditation became preferable to any attempt at merriment, and that snatches of verses, read long since, started up fresh in my memory. The "child's" farewell song seemed to have acquired new pathos, and I needed no book from which to recall its lines. The Neversink Highlands were at last lost to view, obscured by distance and the fast gathering shades of night. Then I cast off any inclination towards sadness, and accepted the present and the future as all with which I had to deal. The pleasant weather was transitory. A storm soon gathered its forces, and under shortened sail and with a disagreeable chopping sea to contend with, we were presently subjected to an unlimited amount of pitching and tossing. I totally escaped the infliction of sea-sickness, and, in fact, even the gentler portion of our little party had only a few days of suffering.

How delightful it is "to go to sea." So say the delighted occupants of some tidy little yacht as they cheerfully glide over the waters of a beautifully shored river, drift with the current around delightful little islets, or even endure the more bracing breezes found in the harbor of a fashionable watering-place. Compare their little trips to the realities of a long voyage, as you would the ravishing dreams of an opium debauchee to the grinding hardships of some poverty-stricken child of misfortune. Sailors don't adore the ocean. Still there are attractions not to be despised, and chief among them all are the glorious glimpses of nature, as we see her, uninterfered with, unadorned by the arts of man. Many of these influences that should be so elevating, are, I am afraid, lost upon the professional seaman. Long association with them has blunted his appreciation, and he looks upon his surroundings with a fearfully practical eye.

A few evenings since I was vividly enjoying a magnificent sunset, and in my enthusiasm invited one after another to gaze upon it. Egad! I could even have called up the other watch from their berths, and I cooled down only after a repetition of chilling remarks from the bystanders.

The captain, a gentleman of intelligence and ability, led the opposition. "Why! Mr. Gihon," quoth he, "I see nothing there to admire. It's very cloudy!"

Of course its cloudy, I replied. but what grand masses of vapor they are, and how magnificently the sun gilds and fairly burnishes them.

"Oh! pshaw," was the answer, "they are ugly, double-headed affairs, and dirty weather is all that will ever come from them."

Obviously the moral is, that sentimentalism is best indulged in the private apartments of one's own skull.

A diary at sea, kept on a purely practical principle, would become as tedious for general readers as is a dictionary. Like the latter its stories would be too short. The "log" is a record of latitudes and longitudes and a statement of the direction of the wind. The passenger, in accordance with a preconceived determination, generally makes notes of his voyage, but as a usual thing he is obliged to confine himself to the relation of very trivial incidents. All journals, compiled under these circumstances, bear to each other a very strong family resemblance. During our first three weeks "out," each day was but a repetition of its predecessor. A heavy sea and strong head-winds baffled our rapid progress. The mysterious wonders of the ocean failed to put in an appearance. It is true that one

day I drew a bucket of water and found it delightfully warm. We were in the Gulf Stream. It is also true that we had exchanged cold blasts for those of a milder temperature, and that great coats were no longer either necessary or comfortable All living creatures seemed to have avoided our path, and we began to fear that we should be denied many anticipated sights. A few gulls mercifully enlivened the prospect, and as they swooped about our wake, floated gracefully upon the crest of a wave, or hovered apparently motionless over our heads, they gave rise to admiration of and speculation as to their powers of flight and endurance. Looking upon and into the waters, all that seemed to claim our attention was the sea-moss, for we were now in that region of the Atlantic in which it abounds. Carried along by the ocean currents it forms in long straggling lines, accumulates in little fields, or is tossed about in detached fragments. It appears as yellowish-brown weed, and certainly does not promise the remuneration with which a closer inspection will reward you. However, scoop up a mass of it, and if your bucket has been a large one, and you were at all dextrous, you will have furnished yourself food for hours of study. The plant itself, with its stems, grass-like leaves, tendrils, and berry-like appendages, is an agglomeration of graceful and fantastic forms. Many of its parts are covered with saline incrustations, ranged in lines, curves, and geometrical shapes, all putting to shame the best of man's boasted works. Animal life is represented by the tenants of myriads of tiny shells, and even more beautifully by the minute and delicate little fish that have claimed its sheltering leaves for their retreat.

You will eventually sail away from all this, and cleaving strange waters will patiently watch for other novelties. Nature gradually made amends to us for the monotonous introductory passages to our voyage, and latterly regaled us with many of her curiosities.

After we had passed the Tropic of Cancer new visitants appeared, and strange birds and still more curious fish gave us a chance for their identification. Sailors would have made excellent adherents to the ancient doctrine of the transmigration of souls, for even yet some of the more superstitious will tell you, half jestingly and half seriously, how the spirits of seamen have taken up their abodes in the bodies of Mother Cary's chickens; how drowned mates fly about as Cape pigeons; how the unfortunate captains claim dignities with the more commanding albatross, and how the poor stewards are consigned to the ever hungry gulls. All these have excited our casual interest, and beside them we had the clumsy booby, the rapid-motioned shearwater, and the more rare Neptune-bird, with his marling-spike tail, to attract our eyes.

The first finny representative that honored us was an unfortunate flying-fish, that miscalculated his flight and tumbled upon our deck. Sensation, making a grand bound, next favored us with a whale, the monster, however, remaining but a short time in our vicinage. Next, we had a school of porpoises, and were now indulged in a genuinely exciting sight. They appeared about our bows without premonitory warning, and their number was literally countless. The entire party is broken up into little groups, and the members of these indulge in the wildest antics. They dart into the air, roll upon the extreme surface of the waves, tumble above and under each other, and swim in every direction with amazing rapidity. The vulgar name with which they have been dubbed from time immemorial, that of sea-hogs, suggests itself at once as curiously appropriate to them. There is a piggish motion, a sort of rooting propensity to obstinately disregard their neighbors, a peculiar kind of wallowing, and certainly an approximation in regard to size that does not fail to appeal to our sense of the ridiculous. I have never seen one out of its native element, and our attempts to secure a specimen on this occasion was a signal failure. A harpoon thrown at a fine big fellow succeeded only in wounding him, but our dangerous intentions must have been at once understood by the entire collegiate assembly, for on the instant they all disappeared with the same successful unity of purpose that had been evinced in their advent.

(To be continued.)

## PRINTING AND TONING.*

BY J. H. ABBOTT.

I APPEAR before you this evening with many misgivings as to my ability to give even the humblest photographer in our midst any new information upon this most important branch of photography—PRINTING and TONING.

The printing and subsequent manipulation are usually intrusted to boys of little experience, instead of men of mature judgment and cultivated taste; especially should the toning be done by experienced and cultivated perception, for in this part of our manipulations we are giving character to our work as compared with that of others, and are adding our little to the education of the public as to what is the proper tone of a photograph to make it pleasing to the eye.

A simple formula might suffice for me, but I know you all desire something more, and whether I am able to meet your desires remains to be seen.

I have devoted many years to photography, and have always tried to please my own taste in printing and toning, yet my taste in tone and depth of print might vary far from that of others.

There are many difficulties to overcome to secure *good* prints; we first want good negatives in order to give good prints. What I call good prints are those showing all the fine details when toned, that you find in the negative when viewed by transmitted light. Having a good negative and a brand of albumen paper of standard excellence, we will proceed to the silvering solution; and here I wish to say that in relation to a certain trouble met with by many (spotted appearance of the print), and always laid to the paper being *greasy*—do not rub anything over the surface of your paper, neither add alcohol to your silvering solution, for by so doing you are sure to sink the print deep into the paper and spoil the effect. Here is the simple remedy for your trouble: reduce the solution with water until your paper takes the solution evenly, and the greasy appearance is removed.

Many nitrates and chlorides have been recommended to save expense in printing, but I have found none so good as the nitrate of ammonia.

Forty grains nitrate of silver, twenty grains nitrate of ammonia, to each ounce of water, is my formula for a silvering solution, and I find it to work well on almost all brands of albumen paper—some requiring a longer silvering than others. Have used Hovey pink and the extra brilliant; silvered forty to fifty seconds, and with great success. In silvering, when your paper is floated fairly over the solution, raise the dish which agitates the solution and keeps the silver evenly distributed, and each sheet has the benefit of the full strength of the bath. When your solution remains passive, the sheets last silvered will show signs of weakness and will give you reddish prints. When the paper after silvering is nearly dry, it is well to complete the drying process by a gentle heat.

As a matter of economy, I fume my paper, use fresh liquor ammonia each time, and fume five to eight minutes. I find it necessary often to warm the dish which holds the ammonia. After printing, wash the prints in three or four changes of water, the last change of water having a very little common salt added to it.

The toning bath should be prepared with the greatest care—made barely alkaline; if too much so, it dissolves the albumen from the paper, leaving your prints flat and muddy. For toning bath, use one quart of tepid water in a large bottle; prepare in another small bottle fifteen grains chloride of gold neutralized with chalk; add to water twenty grains acetate of soda; about ten minutes before toning, add half or more of the gold solution; tone while the bath is slightly warm, adding gold as it is needed. When the prints have nearly lost their reddish appearance when viewed by transmitted light, they are toned enough. Fix with six ounces of hypo. soda dissolved in two quarts of water, to which is added a small quantity of carbonate of ammonia, which latter neutralizes any trace of acid in the soda. Wash your prints after they leave the fixing bath in three changes of cold water, then in two changes of warm

* Read before the Chicago Photographic Association.

water, and in thirty minutes you have your prints as effectually washed as though you left them in the vats a dozen hours.

## LIFE MEMBERSHIP.

A MONTH or two ago we recorded the fact that a "far West" photographer had been patriotic enough and far-sighted enough to become a life member of the National Photographic Association. We now have another one to record. We extract from the gentleman's letter. It speaks for itself, viz.:

"It is my intention now to start for Buffalo some time in June, where I expect to meet nearly all of the *photographic world.*

"As you desire one hundred more life members to the National Photographic Association in order to place it on a solid foundation, with the above named money order you will find another for the sum of twenty-five ($25) dollars, which with my name use for that purpose. Perhaps you may think it strange that one away off in the '*forests*' of Oregon should join the Association, but as we are 'travelling in search of light,' your interests in the 'East' are identical with mine in the 'West,' therefore, you will perceive that it is not so strange after all. I entered as an 'apprentice' in the 'art preservative,' and commenced taking daguerreotypes in Urbana, Illinois, in the year 1848. I am now forty-two years old, and crossed the Plains to Oregon in 1852. My knowledge of the art has been obtained from the various journals treating upon photography. *Yours* has been my standard and guide ever since it came into existence; whether I have profited by your valuable suggestions or not, I can only offer you the accompanying package of photographs as proofs.

"I have the honor to be

"Yours respectfully,

"JOSEPH BUCHTEL."

As Mr. Buchtel's work will be on exhibition at Buffalo, we hope it will be carefully examined. The number in the East who excel it are few comparatively. It is excellent.

Now, if any of our readers are unable to "afford" to support the best institution *for them* that ever existed, take poor Horace Greeley's advice and "go West," for our brethren "of the West" seem to prosper and to have "light" enough to see the advantages of the National Photographic Association. We trust there will be many more from all quarters, who will "join for life" at Buffalo, and put the Association on a real, firm, working basis. It will do twice the good, and have twice the power for good.

## Method of Eradicating Blisters.

BY D. H. CROSS.

HAVING a desire to return a little for the much received through the columns of the *Photographer*, I submit the following, and ask all who are troubled with blisters to try it.

| | |
|---|---|
| Alum, . . . . . | 1 ounce. |
| Water, . . . . . | 40 ounces. |

Dissolve and soak the prints in it for eight or ten minutes after toning and before fixing. It may be used repeatedly.

The tone and gloss of the print are also improved, especially with S. & M. double gloss paper. Should the paper show a tendency to crack after mounting and drying, use a weaker solution, or remove the prints sooner from it. I would ask a trial of this, and the results reported.

## MOSAICS—1873.

HAVE you read *Photographic Mosaics* for 1873? Its one hundred and forty-four pages of condensed, concentrated, practical photographic *good?* If you have not, you are losing more than you know. Its cost is but half a dollar, and it may put at least half a thousand in your pocket. A list of the articles it contains has been given in the advertisement heretofore. The copies left are limited in number, and lest you miss securing one, we apprise you of the fact, that the supply will soon be G—O—N—E!

## American Photographers in Europe.

We are glad to learn that a number of our subscribers are contemplating a visit to Europe during the coming season; the Vienna Exposition, of course, being the great incentive. Of this we are glad, and we do hope they will make their *first* object the study of works of art and art topics, such as will improve and benefit them in their chosen vocation.

Among those who are going are Mr. D. H. Anderson, of Richmond, Va.; Messrs. W. F. Osler and C. M. Gilbert, of this city, and Mr. H. Rocher, of Chicago. Prof. Towler is also about to make a second trip, with his class, and offers a very cheap arrangement to all who would join his party. His circular will be found in our *Specialties*, and we are sure all who go with him will have a grand, good time.

We commend all of these gentlemen to our fraternity abroad, as being fully worthy of any courtesies which may be shown them. If the multiform duties of a magazine could be easily shifted upon another, how glad we should be to accompany them.

## A Visit to the Works of the American Optical Company.

We had the curiosity and the desire, a few weeks ago, while in New York, to visit the works of the American Optical Company, Scovill Manufacturing Company proprietors, and we did it in company with Mr. Charles W. Stevens, the well-known stockdealer of Chicago. That we were surprised hardly covers the sensation. The scene before us was a most busy one, and, to the good photographer or dealer who appreciates first-class apparatus, it was an enchanting and a gratifying one. Here were about forty men, under the foremanship of Mr. Flamming, at work as busy as bees. The first thought that struck us was, *how very careful* they all are. Here is one man at a great, ponderous turning-lathe, merely "heading" and "pointing" little brass pieces an inch long, used among the intricacies of the mysterious multiplying cameras; there one adjusting the springs on a holder; another still fitting the carefully dovetailed joints together; a fourth making a bellows; yet another at a stamping machine, pressing out the myriads of little contrivances and conveniences used to catch, and control, and complete the camera-boxes; another yet, at a stone, polishing and smoothing these parts; a whole squad sand-papering, and sawing, and rubbing, and polishing one part and another, until we come to the man of the final touch, who, like the refiner of silver and gold, labors away until he can see his own image in his work, and then sets it aside ready to tempt the tastes and suit the notions of some enterprising photographer at the "Great Central," or the "O. C. S. H.," or at Wilson, Hood & Co.'s, or some other place as good. Verily, it was a busy scene. Well do we remember the time when the "American Optical Company" employed but one-fourth the men it now does, and we looked upon the "proprietors" as we do upon a hen setting upon her eggs, namely, as having a promising future before them. But they grew weary, and their works were taken in charge by Mr. W. Irving Adams, of the Scovill Manufacturing Co., and with his customary energy and persistence, care and caution, he has built up an apparatus trade that is unequalled in the world. Photographers owe much to this gentleman, for where would the good work be if you had to depend on the kind of apparatus supplied five years ago?

Before leaving, Mr. Adams took us aside, and uncovering a row of camera boxes whispered, "These—these are for the Buffalo Exhibition." We took the hint and kept it a secret, and now it is yours.

We hope we have made it plain to our readers that photography could not do without the works of the American Optical Company, and we hope it will be many long years before we have to do without its able manager.

## CONCERNING THE ANNUAL EXHIBITION.

BY GEORGE B. AYRES.

In the charming little annual—*Mosaics*, 1873—which bids a "Happy New Year" to all the reading members of our profession, will be found the real *beginning* of this chapter.

I there enlarged upon my first point, that "Progress in art development and technical ability, as shown by a *comparison* of the exhibitor's pictures," year by year, "should constitute *the fundamental idea* of the Annual Exhibition." Unless there is an *advance* the contributions even of our most able men will render the Annual Exhibition simply an annual repetition!—from which "Good Lord, deliver us."

II. I desire now to consider whether *Oil* paintings are *proper* contributions, and pertinent to the *object* of the Exhibition. I think not.

It may be urged perhaps (1st,) that they are *solar photographs* "finished in oil," and are therefore legitimate; whilst (2d,) they also add to the general attractiveness of the exhibition. Granted; but since the painter's work has not left a trace of the photograph—the colors being opaque in themselves—how shall we know but that the solar, *as a solar*, was hideous enough to scare Albert Moore to death! Nor would the case be different if the solar had been *perfect;* the result is, after all, dependent upon and attributable to the skill or incompetency of the painter, just as if the whole had been executed *without* the photograph.

For that matter, indeed, it might be proper to accept the works of almost any modern "portrait painter," since under pretence of saving time to the subject, but really because it is less difficult to *draw* from paper than from life—it has become the common practice to go to the *photographer* first, and to the "portrait painter" afterwards!

Secondly: Whether this class of work enhances the general attractiveness is a matter of choice and taste. We know that the so-called fine art galleries are not usually given to a display of *photographs*, however meritorious, on the ground that they are "not art;" simply *mechanical* productions. If so, then I say let each display its own glories,—and *by itself.*

I do not think any true devotee of our profession will waste much time or criticism upon "photographs finished in oil, life size," but rather seek the better collections of genuine oil paintings accessible in every city; and where oil-work upon a *photographic* basis would scarcely be tolerated. Surely there is in our own photography a field ample enough to save trespassing upon any other.

III. "Retouching the Negative" is a subject which I believe has been voted a nuisance, but I beg special permission for reference to it; for to *my* mind "it is a custom more honored in the breach than the observance."

Since excessive retouching has been so generally condemned, and since we have had at previous exhibitions the most abundant proof of ability in this superfine performance, why not try a little in the true direction; and endeavor to illustrate at Buffalo *how many good photographs* can be made *with very little*, or better still NO retouching! This would be a resuming of first principles; an effort to reach perfection under the skylight and in the dark-room; the production of healthy negatives which need no subsequent doctoring.

To this end, therefore, I suggest that photographers shall contribute sample prints from negatives which have required little or no retouching; and that the negative itself shall be shown *as proof*, and for examination. Let us see *who* will contribute *the best*, the *perfect* negative!

IV. I was not present at St. Louis, but I desire to say that, in the printed record of the Convention, there was nothing which elicited my hearty commendation and afforded me more pleasure than the very explicit, complete, and satisfactory report upon the "Progress of Photography," signed conjointly by Messrs. W. J. Baker and Dr. Vogel. It was a creditable counterpart to the one rendered at Philadelphia. But those who were at Cleveland will remember the intense disappointment which followed the announcement there that the committee were not prepared to report. It

was like going on with "Hamlet" without Hamlet.

Beyond question *this* is the all-important among the various reports to be presented at each annual meeting. I feel that nothing else should take precedence of it. Like the "message" of the President or Governor, it should be the key-note and pivot of action; the text of our proceedings.

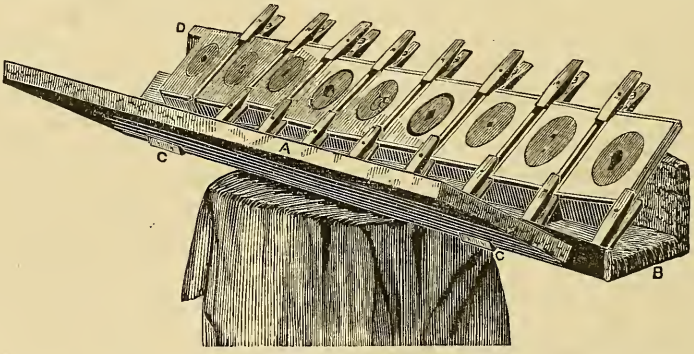
Instead of stating chiefly what *has* occurred during the past year, would it not be well also for this committee to *recommend* for consideration in the Convention such matters and measures as, in the "progress of photography," it becomes necessary to discuss, if not to determine finally. Hence, gentlemen, in making up your narrative for Buffalo, please act comprehensively and decidedly, and I will venture to assure you of the general approbation.

(To be continued.)

## CONTRIVANCE FOR PRINTING MEDALLIONS.

BY C. L. CURTIS.

I HEREWITH send you a picture of a—well for the want of a better name we will call it a "concern," which I find very useful when printing the borders of medallions.




After printing and trimming my photographs, I take a thin board the size of a one-quarter glass and cover with canton flannel, then lay the print on the board and cover with the oval centre, which is gummed to a one-quarter glass, put two spring clothespins on the corners, and it is ready to print. When all my blocks are ready I stand them on the "concern," turn the cover over them and set it in the sun; when the prints are dark enough, turn the cover over them again, and take in and change.

It can be made long enough to print any number you wish.

The cover A, is hinged at C C, and rests on a standard at D, so as to keep it from bearing on the printing-blocks.

When it comes to mounting, just "tally one" for the Slee's prepared mounts coming from A. M. Collins, Son & Co., of your city. I do not believe that any photographer will go back to the paste-pot and brush after once using them.

I can mount two hundred in less time than it would take to mount one hundred by the old way, and do it neater, cleaner, and better every way.

## Important Modification of the Hyposulphite of Soda Bath.

SOME two years ago I was called on to make some modifications, if possible, in hyposulphite of soda crystals. The complaint was that they were too hard, and not as readily soluble as desired.

I can now control the size and hardness of the crystals to almost any desired extent, even to a fine deliquescent powder difficult to keep dry, which is, of course, very readily soluble in cold water.

In photography, its affinity for water being thus so much increased, it is very readily washed out of a film or paper, and a saturated solution being much stronger than usual, clears the iodide from a plate at once, and the solution shows no tendency to form a mass of

water conducting crystals all over the dish, and down the sides, thus syphoning off the contents on to the shelf.

Has any one else made a similar discovery?

J. Voyle,
Tuscaloosa, Ala.

## A HOME-MADE SYPHON.

BY JOHN H. GRIFFITHS.

As I promised you some time ago to send you a description of my syphon for the benefit of my brother photographers and others, here it is. Procure a glass syringe with a pipe at the end, not one with metal stops, as those with cork are the best. Get also a piece of rubber tubing any length you wish, but the longer the tube the larger must be the syringe. Now, insert the pipe of the syringe into one end of the tubing; put it (the tube) into any fluid you wish to draw off; pull out the rod of the syringe its full length, then with the thumb and finger press the rubber close to the pipe of the syringe; withdraw the syringe; conduct the tubing into any vessel you wish your solution to run into; discharge whatever solution may have drawn into the syringe, and you have it O K. Instead of using all rubber, I get two pieces of glass tubing any length I may require, and then I join them together with a piece of rubber tubing by inserting one end of each of the glass tubes into the ends of the piece of rubber, which forms a kind of hinge, which makes the glass not so liable to get broken as it otherwise would be if it was simply one piece bent in the middle; besides it is more handy to stow away. I then get another piece of rubber about two inches long, and put one end of the glass tube into it for about one-quarter or one-half an inch. The other end of the other piece of glass I grind or nip with nippers till I get it something the shape of a quill pen. The advantage of this is that you can put it to the bottom of your bath-holder without disturbing the sediment at the bottom. Of course, should any dirty photographer have more than half an inch of rubbish at the bottom of his bath, he will have to make the nib on his tube that much longer. To use it you have simply to put the end of your syringe, as mentioned before, into the end of the rubber attached to the glass tube. But I find it well sometimes to draw the rod out of the syringe, and dip the end with the cotton upon it into the solution. The advantage of this is it swells the cotton and makes it fit the cylinder of the syringe better than when dry. Of course if you wish to draw off any solution to the last drop, you have simply to change the rubber from the end not cut pen-shape to that end, and so reverse the pipes which go into the solution. If any of your readers have anything more simple and better for its purpose than the above, I should really like to know it. I have used the above for the past eleven years, and it has never failed to answer every purpose for which a syphon is required. If you should think it worthy of a place in your valuable journal, you can publish it for the benefit of others, and whilst I am now writing you, I may as well ask you how Mr. Woodward came to obtain a patent for his solar camera, or for the camera he calls his. I am no lawyer, but I really cannot see how a patent can be taken for a thing that has been known and described since about 1796. I have a book in my possession called Emerson's *School of Arts*, in which there is an *illustration* and *description* of a solar camera* exactly on the principle of the so-called Woodward's, with reflector, condenser, and object lens, as used in solar cameras as at present used. Should you think it of any interest to you or any of your readers, I will make a photograph of the illustration in the book and send it you.

Of Mosaics for 1873 the Philadelphia *Ledger* says:

"This annual record of photographic progress contains fifty-six essays, contributed by the most prominent photographers, and by both amateur and professional artists. The preliminary essay, by Edward L. Wilson, gives a valuable review of the advances in photography during 1872, and the other papers treat of subjects highly interesting to photographers."

* A solar microscope, perhaps. There was no use for a solar *camera* in 1796.—Ed.

## GERMAN CORRESPONDENCE.

*Appreciation of Photography by the Public—Correctness in Panoramic Views—Curious Effect of Permanganate of Potassium—Enlargements.*

Is photography appreciated by the public as it ought to be? I think not. Perhaps in America this may be the case, but here in Europe it certainly is not. Some time ago a friend of mine happened to be in a police station; a gentleman left when he came in; after closing the door my friend heard the following conversation between the two officials:

*First.* Who is that man?

*Second.* A photographer.

*First.* Is he innocent?

*Second.* I do not find any wrong act mentioned in his passport.

*First.* Pshaw! any loafer who does not like to work, buys himself a box, and becomes a photographer nowadays; I do not trust him.

That is the opinion of a police officer, not of all, but of some of them; under these circumstances you will not feel surprised if our photographers of good reputation do not enter their names in the hotel register as "photographers," but prefer writing "art editor," or "manufacturer," or "apothecary."

Policemen are distrustful, and I will excuse them, but it is a pity that many intelligent people have also a very poor idea of photography, and that they place the photographer with his camera on a par with the man who turns a hand organ. Here is a very interesting instance: A celebrated poetess was invited by a photographer to sit for her portrait, to which she consented; he succeeded, and sent the first print to the lady. She was not satisfied with it, and wrote to the photographer as follows: "The picture is very well made, but the position is very unnatural. I never incline the head in the manner shown on your picture, and my eyes are more open than you have made them; *but I see that you and your machine* (the poetess calls the camera a machine) *work well;* I will sit a second time, and select my position myself."

She came, and selected a position according to her own choice (a very curious one), the photographer took a picture, and sent her the first print from the untouched plate with the following letter:

"I beg to send you inclosed the result of *my machine* and *myself*, but I must remark that the work has been principally performed by the former (the machine). The sensitive plate of the machine reproduces everything, every line of the face, the surroundings, &c., &c., with equal sharpness, making no distinction between what is characteristic and what is not. It is the duty of the artist photographer to remove or to reduce the latter and to strengthen the former. This is not so easily done, and I would not like to undertake it until I have received your answer stating that you are satisfied with the picture in general, especially with the position for which, as you know, I am not responsible."

It is stated that this celebrated lady after reading this letter, was at first very angry, but she answered the photographer very amiably, and acknowledged that the first picture was the best.

The photographer is a young man proud of his art, and I recommend his action to the fraternity.

In one of our late meetings a rather lively discussion took place on the value of the so-called panoramic or pantascopic apparatus. This apparatus is provided with a revolving camera moved by clockwork. It was invented by Marten, and improved by Johnson & Brandon. Braun, in Dornach, first introduced it into practice. With an ordinary landscape lens this apparatus makes pictures of an angle of view of 130° and more. Braun has taken with it hundreds of Swiss views. These views have also found their way to America, and are appreciated everywhere.

Lately we had occasion to compare these panoramic views with other photographs taken from the same point of view, but with an ordinary camera and an angle of view of about 60°. The majority preferred the latter pictures.

The panoramic apparatus is indeed very good if you intend to take a panorama from a summit like Mount Washington, or the Righi in Switzerland, but it is a mistake to

use the apparatus when we have to take a view of only a small angle, as, for instance, a narrow valley with rocks on both sides. If the apparatus is employed for such a purpose the camera is directed first perpendicular to one of the rocky slopes, which is therefore taken in a front position, but when the camera revolves it is brought in an oblique position to the same side of the valley, and the slope which had first been taken from the front is taken from the side also. The case is exactly the same with the other side of the valley, and the result is that the picture does not look like a narrow valley, but like a plane; in the foreground we have on either side two walls of rock, which are separated in the centre by a narrow valley.

The panoramic apparatus should not be used for such purposes. It is also a fault of this apparatus that straight lines which are not situated in the horizon are reproduced as curved lines. For instance, Braun's panoramic view of Geneva, Switzerland, has a curved bridge in the foreground. Panoramic views in general give only a correct impression of the object if they are curved so that the picture forms the inside of a cylinder, and you place your eye in the centre of it.

Attention has been frequently called to the disadvantages which may be caused by impurities in the mounting board. A curious case of the kind I noticed last year in a number of stereoscopes mounted on green boards. The photographs turned yellow in four weeks, and became perfectly useless. The cause of this was easily discovered—the green color contained ultramarine, and this substance readily develops sulphuretted hydrogen, the most injurious body in existence, so far as photographs are concerned. Our mutual friend, Simpson, mentioned last year another very injurious contamination with hyposulphite of soda. The latter, by reason of its containing sulphur, acts in a similar way as ultramarine. The presence of hypo is explained by the process of manufacture of paper. The rags are bleached with chlorine, and in order to remove the last trace of this gas after the bleaching has been completed, hyposulphite of soda is employed. Since photographers have complained of this evil, many manufacturers have stopped using hypo, and the consequence is that the mounts contain a trace of chlorine. In white filtering-paper it is contained sometimes in such quantities that we can detect it, when fresh, by the smell.

But there are other impurities which act very injuriously; for instance, chromate of alum in combination with gelatin is very often employed as a coating to the glazed mounts. The chromate of alum reacts acid, and all substances with an acid reaction will turn photographs yellow. Not long ago a number of pictures were sent to me by a photographer, who is acknowledged to be a very particular man. They had turned yellow to an astonishing degree, but the fading had only taken place with those which were mounted on a particular kind of glazed Bristol board, while other pictures which had been mounted at the same time on different boards remained white.

I examined the mounts and found but a small quantity of alum, but an enormous quantity of gypsum. Until now I have not considered this substance injurious, but I feel different now. I shall make further experiments in order to find out how gypsum affects photographs, and call attention to the fact now, hoping that perhaps others may be induced to publish their experience.

The American photographer reading the European periodicals on photography, will hardly be able to suppress a smile at the many articles on enlargements. He lives under a clearer sky—under a brighter sun. Boston has annually one hundred and twenty cloudless days, Berlin has only twenty-one, and London is still worse off, and the further we proceed northward the number of bright days decreases. Thus it happens that with us so many branches which require sunlight become practically impossible, for instance, the mezzotints, and this is the reason also why the enlargement of photographs gave us so much trouble. The American photographer simply mails his photograph, with a ten-cent stamp, to Mr. Moore, in Philadelphia, and for $2.50 he receives a life-size picture, more beautiful than we can make it in Europe—a picture so full of effect, that we would willingly pay double the amount if we only could get it. Under these circumstances it seems to be a thankless job to

describe our clumsy methods of making enlargements independent of the sun, and still this process has interest for different zones, for, practically, it is a reproduced negative, whether it is larger or smaller than the original makes finally but little difference.

Our friend Simpson writes in your January number about the method of Mr. Willis to accomplish the above purpose, as it is necessary first to make a transparency (positive), and afterwards a negative; he makes the first by simple contact printing on albumen paper, which is backed by a piece of India-rubber, in order that the albumen film with the picture on it may easily be separated from the rubber by dissolving the latter with benzine and transferring the film to glass. Although this seems to be very simple, still it has its difficulties.

The preparation of the caoutchouc paper is very unpleasant, and unfortunately it does not keep long. I have tried such paper before, which had been prepared according to a formula of Mr. Sutton, and I got spotted pictures. Another drawback is, that it takes a very long time to print; four or five times as long as ordinary paper; that is to say, in our climate, sometimes several days; this is tedious. In the camera I scarcely require as many minutes as with this process hours; and I believe that with due care, a transparent positive may be made in the camera as clean as an albumen print.

The main points of the method are well known; only in regard to the proper illumination in taking positives, I should like to make a few remarks. Generally, the camera with the negative which is to be reproduced, is directed towards the sky. This is frequently wrong. The strong light causes the transparent parts frequently to be overexposed. With a subdued illumination we obtain much better results, particularly with the now customary thin negatives. It is the same as with the printing process, where a thin negative, under the subduing influence of a plate of green glass, yields much better results than printing with full light. I generally illuminate the negative by the reflected light from a white card mount; this subdued light has the further advantage, that a species of blurring, which is due to the light being reflected from the back of the negative, is entirely avoided. Only in dark weather, or with very considerable enlargement, when the intensity of light is already considerably weakened, I expose towards the clear sky. Another circumstance to be taken into consideration, is the collodion and the bath. Sometimes the ordinary formula gives excellent results, but at other times a fine precipitate covers the light, which I remove by adding five drops of nitric acid, sp. gr. 1.20 to every 100 cubic centimetres of collodion; such a collodion will give, with an acid bath, perfectly clear transparencies.

The collodion decomposes, however, quite rapidly. Not more than necessary should therefore be made. The bath I make always more acid than usual. Such an acid bath gives, with a sufficiently long exposure of a hard negative, a very soft positive. Of course it is necessary to time correctly; mistakes are easily made in this direction. I have made negatives and positives by this process, which I preferred in every way to those made by any other method.

It is to be observed that the acid does not only give us the control of the silver bath, but also of the picture. I have obtained from many too brilliant negatives, very soft positives; and from many weak negatives by choosing the time of exposure properly, I obtained brilliant positives.

Lately, the quantity of the different materials which are used in photography, was discussed in our society, and the rather unexpected result was brought to light that, in portrait photography the expenditures for mounts are greater than the cost of silver.

Truly yours, H. Vogel.

## The Purity of Card Mounts.

COMMUNICATION OF MM. ROHAUT AND HUTINET TO THE FRENCH PHOTOGRAPHIC SOCIETY.

We have the honor to lay before you the results of new researches and experiments into the causes of spots which appear upon some paper prints.

The prints pasted upon cards thickly sprinkled, intentionally, with bronze powder (metallic particles) become covered with

spots of a green, grayish-green, and sometimes of a brown color, but only after remaining a long while in a very damp place. The samples, Nos. 1 and 2, were left for many days in a cellar.

The samples, 3, 4, 5, and 6, equally imbued with the bronze powder, but which were kept in a dry place, have undergone no alteration, notwithstanding they have been pasted six months. This induces us to believe that moisture alone can produce the oxidation of the bronze and lead to the green and brown spots. The spots generally observed, instead of being either green or brown, are white, like sample A. They must proceed, then, from another cause.

The sample 7 is a print sent to us by Mr. Schweisforth, of Remscheid, who also believed in the action of the bronze powder located, so to speak, at the surface of the card. For the purpose of avoiding direct contact between the card and the print, he separated them by a piece of paper, placed between, and nevertheless the spots continued to appear. This result proves, in our opinion, in the clearest manner, that the card is not to be considered the cause of the spots. This experiment obliges us to accept the explanation of M. Frank, who attributes the spots to the fermentation of the paste when the prints are placed one on top of the other before being sufficiently dry. The sample in question had been pasted twice, and the amount of moisture must necessarily have been greater; the effect also is more marked.

The samples Nos. 8 and 9 strengthen this conclusion; in fact one perceives on these two samples, not only spots, but long stains following the direction of the brush used in applying the paste; and in examining the card one perceives the marks left by the paste, where it was left, by uneven thickness in being spread upon the card, in the exact shape and position as seen upon the proof. There is then evidently an influence exerted by the paste upon the print; if they had been properly dried the spots would not have occurred.

We do not think, however, that this explanation in any way contradicts the reasoning or the experiments of M. Boudrimont: a prolonged condition of moisture, producing fermentation of the paste *unevenly spread*, could actually incite, *locally*, the action of the hypo left by imperfect washing in the prints. Neither would it invalidate the remarks of M. Davanne, that the hypo, in consequence of its being in a state of solution, would be found equally distributed throughout the print, and not found in spots. This salt could really be uniformly distributed, yet produce a local effect from a local cause.

## THINGS NEW AND OLD.

BY R. J. CHUTE (ROLAND VANWEIKE).

### Working Large Plates.

Every operator remembers with what trepidation he handled and coated his *first* large plate. In the earlier days of the practice of photography, when a quarter or half size was the largest plate in general use, the coating of an 8 x 10 was quite an achievement, but now we are called upon to use the mammoth sizes from 14 x 18 to 20 x 24, that really require skill in their manipulation. And as now the enlarging processes are coming into so general use, the working of large plates will become a part of the practice of many who have seldom or never used them before. Where large plates are used only occasionally it is well to clean them as wanted. If albumenized and kept ready for use, they should be wrapped carefully in clean papers and kept in a dry place free from dust.

Collodion for large plates should be a trifle thinner than for small ones, and should be from a fresh sample; that is, a sample that has not been used from before. Success in coating a large plate depends much upon the ease with which the plate is held and the *complete control* the operator may have over it during the operation. Various methods are practiced by different workers. One holds the plate by one corner while the other rests on a shelf or stand; another devises a support on which the centre of the plate rests, and is easily balanced by holding the corner. A method which I prefer, however, and which requires no special preparation or place to operate is, to balance the plate on the open hand. A piece of

card-board, or clean paper folded several thicknesses, to place between the hand and plate, is necessary to keep the warmth of the hand from affecting the film. Holding the plate in this way it is under perfect control and may be manipulated with the same ease and facility as in coating a small plate. An important item is to pour on the proper quantity of collodion to cover the plate easily, and not pour too much on the floor; and also prevent, if possible, the collodion overflowing the edges of the plate and running across the back. A little moisture of the pad or paper on which the plate rests, will insure it from slipping while pouring off the surplus collodion. When the plate is ready for the bath, it may be seized by the lower left corner with the left hand, the palm of the hand turned upward and the fingers supporting the plate on the under side; let the plate drop into a nearly perpendicular position, and carry it to the dipper, which is to be raised to receive it, with the right hand. It must be lowered carefully and steadily into the bath, being careful that there is no stopping or hesitation until it be completely immersed.

The next important point is the development. This may be conducted by balancing the plate on the hand, the same as in flowing the collodion; but as the flowing of the developer is an entirely different operation from that of flowing the collodion, it requires a different handling and control of the plate; it is done in a different light and necessarily in a different position. The best method I have found is, to have a support that can be placed in the developing tank on which the centre of the plate may rest. A bottle, of the proper height, with a cork in, answers the purpose well. Great care must be taken, *if the plate comes under the tap*, that there are no drippings, for a drop of water on the plate before development has ruined many an otherwise beautiful negative. Holding the plate by the left-hand corner, so that it can be easily inclined in any direction, flow the developer from a wide-mouth bottle, commencing at the left-hand corner and carrying the bottle across to the right as the developer flows. Enough should go on to cover the plate without any hesitation, and manage the development in every respect the same as with small plates.

The care and skill necessary to produce a good negative are required in the same ratio as the increase in the size of the plates. Large plates exhaust a bath very quickly, and are more liable to suffer from any sediment or particles floating in it, hence the necessity that the strength of the bath should be kept up, and that it be filtered before being used for large work. The careful worker, with a little practice, will easily overcome all difficulties and soon manipulate a large plate with the same confidence and success as he does a small one.

## BE WATCHFUL.

Our caution last month, page 133, on the subject of "Fraud and Impositions," was not an empty one. We had received word, among other similar things from our readers, that a party was offering a matter for sale, about which information was asked.

We set to work our *usual* method of obtaining knowledge in such matters, and ere long we received a brilliantly printed circular, with the N. P. A. monogram at the head of it, and the name of a good Western photographer at the foot, announcing that he was ready to impart to any one a "process so simple that any one can work it," for making enlarged negatives, for the sum of $3. Our next step was to obtain the process, which we did at the cost of $3 and some correspondence. Imagine our astonishment to find that nearly the whole "process" was, word for word, the same as was given by Mr. Simpson in our last January number.

We immediately notified the gentleman of our knowledge of his affairs, and we believe he has stopped; so we spare his name, hoping he will not continue, and cause us to reveal it.

We only state this case to show you the importance of being watchful, and how continually *we* have to be watchful, for your sakes.

Another instance occurred recently,

where another party, hankering after photographic "flesh-pots," set out to sell a process of questionable value. He found himself frequently in "a nest of the subscribers to the *Philadelphia Photographer*," and so great was the opposition to him that he found sales difficult to make. The happy thought occurred to him that he could *buy* the *Philadelphia Photographer*, so he proceeded to our office, blandly explained his mission, offered his money "for an advertisement and notice," but was told just as blandly that his process could not be advertised *at any price* in the *Philadelphia Photographer*, for it was not believed to be of value. He could not show us good results, and so he was forced to hunt an advertising medium elsewhere. We notice that he found it in a contemporary. Thus our subscribers will see that our magazine makes money for them by what it *keeps away* from them, and on what they *don't* get, as well as by what it teaches and gives them.

## Waymouth's Vignetting Papers.

"WHAT we have so long wanted," is the general verdict with reference to the Waymouth vignetting papers. As many of our readers may have overlooked the specimen "paper" which we presented to them in our last number, we desire to call their attention to that fact, and again ask a trial of the same.

You will not use cumbersome blocks and breakable glasses, or other contrivances which have to be adjusted every time you make a print, after trying these. Once adjusted, the Waymouth vignette papers need no changing. The whole order may be printed in the same time that ordinary prints could be made.

One "paper" may be used for any number of negatives, and sizes and shapes are made to suit all sizes and shapes of subjects, from the smallest carte head to whole-size. Great pains have been taken to make them properly and well; but if our readers find any suggestions to make, the publishers would be glad to hear from them.

Meanwhile please try the specimen sent you.

## MR. ANDERSON'S ALLMYKNACK.

THE ready interest in Mr. Anderson's new and novel production, as shown by the prompt orders which have followed the announcement of it in our last, reassures us that we have not mistaken the wants of our readers in securing its publication.

Why should not photographers have something to entertain them as well as other good people, and why should they not have something gotten up especially for them as well as any of the rest of the dear public? We see no reason why they should not.

It is dedicated to the National Photographic Association, and we have delayed the publication of this effort of Mr. Anderson's because the original intention of it was, to intermix by its means a little merriment and good humor with the more solid material, which will be found in plenty at the great Buffalo banquet—to make it a sort of light dessert, which should aid all in the pathway to amiability, who have a corner in their hearts for such things.

The Convention being postponed, of course, the Allmyknack was delayed again, in order to make it larger and better.

It is nearly completed, and we hope to have it ready by the time you read this.

Be assured that this is no catchpenny book of empty nonsense. It is *useful* as well as funny, and has many fine things in it, which any smart photographer can make use of in his business.

An example of the illustrations, and a partial list of the contents is given in our advertising pages. It is a work which all photographers can find sale for among their customers, and one which will interest and amuse them. For special terms apply to the publishers after first reading the advertisements.

MORE PICTURES FOR VIENNA.—Mr. W. R. Howell, of New York, gave us the pleasure last month of examining the pictures which he has sent to the Vienna Exposition—truly elegant specimens of photography, well sustaining the American reputation for good work.

## THE EXHIBITION.

REGULATIONS AND ARRANGEMENTS.

The Fifth Annual Exhibition of the National Photographic Association of the United States will be held in the Rink at Buffalo, N. Y., beginning Tuesday, July 15th, 1873.

The meetings of the Association will be held in the Hall near the Rink, morning, afternoon, and evening.

The business meetings of the Association and Exhibition will be free to members presenting their badge.

No admission to the *business* sessions for those not members.

Those not members will be admitted to the *scientific* sessions on payment of fifty cents each admission.

A cordial invitation is given to *all* photographers abroad and at home, whether members of the Association or not, to exhibit of their work, and space will be provided *free of charge.*

Manufacturers, dealers, &c., are charged $10 fee to help defray the expenses, unless the Executive Committee reduce the rates to applicants in special cases.

### DIRECTIONS TO EXHIBITORS.

1. Estimate about the wall-space required for your work, and send, early, the computation thereof to W. J. Baker, Local Secretary N. P. A., Buffalo, N. Y.

2. Inquire of your express agent the time required to forward a box from your place to Buffalo, N. Y., and send so that it will arrive here not before the 12th of July next, nor after the 15th.

3. At the time of despatching your box, mail a descriptive invoice of the same to the Local Secretary, and place a duplicate of the invoice in the box itself.

4. (*Very important.*) PREPAY ALL CHARGES.

5. Screw each frame on to two cleats, and also fasten the cleats to the sides of the box with SCREWS.

6. Fasten the lid with screws; use no nails for this purpose.

7. Put your name on the back of each frame, or place your card under the glass in front.

8. Put your name on the bottom of the box inside.

9. Direct the box to W. J. Baker, Local Secretary N. P. A., Rink, Buffalo, N. Y., and on the inside of the lid put your own name and address.

10. You can easily see how mistakes and much confusion will be avoided by strict adherence to these instructions in every case.

Arrangements with express and railway companies are being made for a commutation of fares and freights, and the result will be announced in a circular, to be issued in due season.

The list of hotels will also be given in the circular, and their rates.

A copy will be sent to all photographers who can be reached. Those who do not get it, may have copies by applying to either the Permanent or Local Secretary.

W. J. Baker,
Local Secretary, Buffalo, N. Y.

Edward L. Wilson,
Permanent Secretary, Philada.

## A Word Further to Exhibitors.

But very few responses have been made to my proposition communicated in the May number of this Journal, and while they have all been heartily favorable to the plan of arrangement there suggested, they are certainly not numerous enough to enable either the Executive Committee or myself to form any opinion, as to how well the plan might meet the general sense of the Association, unless we assume the truth of the old adage that "Silence gives consent."

We very much wish that a larger expression of opinion would be given. It is not too late yet, and it can hardly be imagined that the matter is one of such entire indifference to exhibitors as the lack of expression seems to indicate.

Will, or will not, those most interested, the exhibitors, place me in a position in which I can feel that I understand their desires?

To secure good will and entire unanimity is one of the first essentials in the conduct

of our Association. To effect this the change of time was agreed to, placing the date of this Convention in what is to Northern photographers a busy season, and suit the leisure of our Southern members.

And in consideration of the fact that the proposed arrangement of the Exhibition is an innovation on established usage, and might by some be considered an abridgment of their rights and privileges, if there should be one single exhibitor who expresses his disapproval, the scheme shall be laid aside for the present, till it can be discussed and acted on in a business meeting.

But in order that it can be carried out successfully, it will be necessary that all exhibitors communicate with the Local Secretary *by the last of June at the latest*, and inform him specially, how much work they propose to send, and how much space each frame will occupy, and of what class the contents of such frames are.

Mr. J. F. Ryder, of Cleveland, in an answer to the May article, proposes that a "square appeal be made for plain photographs, with reference to making a special show of that class of work as being the test of true and pure photography, and of skill on the part of the producer."

He goes on to say, "It is true that the retouching of negatives and prints is so universally practiced that it must be done, as surely as a tailor must press and brush a coat before it can be offered to the customer. I know that much harm is done in this way. I feel that a reaction must come; whether it is yet time is the question."

When that time will come no one can tell; that it must come and will be a *good* time all will agree, and what could help it along faster than the carrying out of our friend Ryder's proposition. His plan can be made to work if you will each send a few plain photographs, and if the severer classification cannot be carried out, there can be no dissent or lack of time for his, and it would be beyond a question the most useful feature of the Exhibition.

To greater skill in plain photography we must sooner or later come. The public will in the end tire of, and detect the falseness of so much touching. Nature and not "finish" will be required of us. Then we will become "ARTISTS" in our own right, and while we obey the same laws, will not imitate the manner and tricks of painters or engravers, but in our own section of the realm of art, practice our own methods of representation.

The appeal is to all of you to help this good time come.

W. J. BAKER,
Local Secretary.

BUFFALO, N. Y.

## Classifying the Work at the Buffalo Convention.

IT is with pleasure I read Local Secretary Baker's ideas of arranging pictures and classifying them at the Exhibition of the N. P. A. I have been an advocate of the same for some years, at our annual fairs, for the very reason that many meritorious artists of small means will not exhibit their work in competition with work styled photography that is made up of gilt and gaudy frames and the pencil of the professional artist, with but little of the work of the practical photographer showing. Admitting that some of the work of those that are styled our first-class artists is very beautiful and attractive at our exhibitions, and I am afraid without them it would be considered a poor showing of our art (the way pictures are exhibited at the present time), still it is not legitimate photography; it is the work of dollars and cents called to its aid, and not practical photography.

What we should aim at and encourage is plain photography, worked out perfect with the aid of lighting the subject, chemicals, instruments, posing, accessories, and O'Neal's formula, brains; if you will use the retoucher's pencil to do away with slight imperfections caused by the freaks of nature or manipulation, do so. Such pictures are made perfect daily by photographers who are not known as our best artists; so give such practical men a fair show to exhibit their work.

The daguerreotypist that excelled in the early days of the art was known and recognized by his own handiwork, and not by the aid of paid artists, as there was no necessity for them at that day, except to copy

from the daguerreotype. Young, ambitious photographers dislike to exhibit their work, let it be ever so good (as many of them informed me at the last Exhibition in St. Louis), alongside of grand and costly displays, say what you will to the contrary. Give them a fair show by either curtailing the big show of colored work, or make it so that plain work shall have the precedence of light and position in our exhibitions; no mixture of the two allowed on any consideration,—it don't matter who the work is got up by or belongs to; if our worthy President or any one else have the two styles, let them be separated in different sections. Then there would be a stimulus given to our practical photographers to show what can be done by them in plain photography in competition with the biggest guns in our profession. There should be a committee formed for such a purpose to say what was considered plain work and what was not, or it might be left to the judgment of the Local Secretary to decide.

By this means, no doubt you would have six exhibitors where you now have one by the present plan. Something should be done at the next meeting of the N. P. A. to bring about the much-desired change; if not, in time you will have fewer exhibitors and but little legitimate plain work to show in competition against the man of means that has the almighty dollar to exhibit his show or buy his greatness.

I believe one of the principal features of the N. P. A., to benefit the greatest number at the smallest cost to them, is the reason plain work should be encouraged by those that have the welfare of the Association at heart.

J. H. Fitzgibbon.

## KENT'S HAND-SCREEN.

After much delay, which he could not control, the Permanent Secretary, by order of the Executive Committee, will soon forward to each member of the National Photographic Association a photograph showing the manner of using Mr. Kent's *Hand-screen*, and with full instructions how to make it and how to use it, together with a license to the use of the same, the whole being a present from Mr. Kent to the members of the National Photographic Association.

We need not allude to the matter formerly published on this subject of screens, or to discuss who first used a screen to modify the light on the face of the subject. Mr. Kent does not claim that honor by any means, and never did.

But he *has* invented a method of screening *by hand*, so to speak, which he fully explains with the photograph alluded to above, for the benefit of his fellow-members; and it is well worth all it costs to become a member to secure the privileges so generously given by Mr. Kent. All who join hereafter will have the entire instructions, &c., sent them.

The Executive Committee have already sent Mr. Kent a handsomely inscribed vote of thanks, and we hope that after others have used the advantages he has given them that they also will have the courtesy to tell him to what degree they are pleased.

## BUFFALO PHOTOGRAPHIC ASSOCIATION.

The great good derived from associated effort has come to be recognized even by us here in Buffalo, and in accordance with the spirit manifested at previous meetings, the photographers of the city met at the stock house of David Tucker & Co., on the 25th of April, for the purpose of effecting a local association. The meeting was called to order at 8 o'clock, and David Tucker, Esq., was called to the chair. Mr. W. J. Baker was chosen Secretary *pro tem.*, and the duties of the occasion began.

Mr. Joseph Samo, from a committee appointed at a previous meeting to prepare a constitution and by-laws, made a comprehensive report of the same, which was unanimously accepted.

The following list of officers were elected unanimously and by acclamation, for the term of six months. W. J. Baker, President; S. B. Butts, Vice-President; G. C. Farnsworth, Secretary, and D. B. Miller, Treasurer.

Joseph Samo and F. Meredith constitute the Executive Committee for the same term.

All present manifested an encouraging interest, and acquitted themselves to the entire satisfaction of the Treasurer by signing the constitution and by-laws, and paying one dollar.

It is hoped that this harmony of feeling and this union of forces will place the success of our coming Convention away beyond the possibility of doubt, at least so far as Buffalo is concerned.

G. C. FARNSWORTH,
Secretary.

## German Photographic Society of New York.

THE regular monthly meeting of this Society was held on Thursday, May 1st. President W. Kurtz in the chair.

Minutes of last meeting were read and approved.

The chairman called attention to the resolutions of last meeting, changing the meeting nights from *Friday* to *Thursday*.

Mr. Lewin asked for advice, if it were possible that the silver bath could get spoiled by metallic salts contained in the glass bath? In explanation, he stated that he had a glass bath, which whenever used resulted in streaky, funny-marked negatives. He had attributed this first to the dipper, but after using different dippers of glass, wood, and rubber, and using different silver solutions which in other vessels worked all right, with the same bad effects, he had come to the conclusion contained in his question. Mr. Kleinhans, and in fact a great many others, doubted that the minute quantities of metallic salts, contained in glass, could be the cause, and after a short debate a committee, consisting of Messrs. Lewin, Nagel, and Boettcher, were appointed, to make experiments with the badly behaving bath in question.

The undersigned called the attention of the meeting to an article in *Anthony's Bulletin*, about keeping silvered paper longer white than usual, by using blotting-paper as backs in printing-frames, previously saturated with a solution of bicarbonate of soda. As nobody had tried this yet, a committee, of Messrs. Nagel, Schoene, Trapp, and Boettcher, was appointed, with instructions to test and report.

The following question was found in the letter-box, viz.: Is the frame that Mr. W. R. Howell sent to Vienna a copy from the one sent by Mr. W. Kurtz?

Mr. Schoene said he understood it to be, but would like to hear Mr. Kurtz himself on the subject. Thereupon Mr. Kurtz surrendered the chair to the Vice-President, Mr. G. W. Weil, and answered:

"Gentlemen, the frame in question *is an exact copy of mine*, with the exception of a few slight details, which Mr. Howell, my colleague and neighbor, for some reason saw fit to make. Maybe he considered them improvements, but there were *no material* changes."

Mr. Kurtz was then asked by a gentleman who had not seen either frame, whether it was not possible that Mr. Howell had the same idea? (Laughter.)

Mr. Kurtz replied that it would be truly wonderful. He had gotten his idea from former experience in Europe. Knowing that a photographic exhibition of small black and white pictures in a large hall was monotonous to the public, and that everything depended on the framing, hanging, arrangement, &c., he had sent the different kinds of pictures, large and small, plain and colored, nicely arranged in separate frames, to the Paris Exposition, requesting the parties in charge to arrange them according to an accompanying plan. And the first letter he received from Paris made him savage; it stated that his plain photographs were hung in one room and the colored work in another, as they (the French committee) did not consider painted porcelains as photographs; in fact, that the whole harmony was destroyed. He then made up his mind that whenever he should send pictures abroad again, without being able to superintend them personally, he would build a wooden structure in the shape of an elegant piece of furniture HERE, hang and arrange the pictures himself, screw them fast and ship them in that way; and this he has done for the Vienna Exposition. His experience at Paris gave *him* the idea. Mr. Howell has never sent pictures to Europe

before, and it is only there they make that distinction.

Mr. Kurtz further stated that the German Photographic Society had seen the frame at the "Palette Club-rooms." It consisted of a structure 20 feet long by 14 feet high, with a base of about 2 feet 6 inches; above that a space for large and small work, colored and plain, divided by pilasters and columns in five sections of different heights and widths, covered with maroon cloth. The centre was raised above the other sections in order to admit a life-size picture. *Exactly the same has Mr. Howell.* Above that I have my name. *So has Mr. Howell.* In the lower sections of the design are cabinet cards on block mounts with gilt edges, gray paper, &c. *So has Mr. Howell.* Where Mr. Howell's frame *differs* from mine, where his is original, is on the base. *Mine* is plain with a thin gilt edge. His has a couple of tremendous gilt monograms, extraordinarily large and plain. His also differs from mine in the upper part of the two outer wings. There I have two ornaments, which form part of the frame, holding the Paris and New York medals of award. *These* Mr. Howell naturally has left out. His also differs in the choice of the wood; mine being imitation of ebony, and his black walnut with a great deal more gilt and inlaid wood. But the change I understood was a necessity, dictated by the carpenter, who was obliged to complete the frame in a great hurry, and the varnishing process for imitation of ebony takes a great deal of time, which Mr. Howell could not give, having ordered his frame (after mine was on exhibition) *only* two or three days before the government vessel sailed, and consequently black walnut was the wood that *had* to be used. My frame was over three months in hand, Mr. Howell's as many weeks, and strange to say he had applied for space at General Van Buren's office long before myself. Why was he not ready first? And why did one of his employés tell me just four days before the vessel sailed that Mr. Howell had given up sending to Vienna; that they had not a single picture prepared?

I am perfectly willing Mr. Howell should pattern after me, in fact it is a compliment, although a poor one; but I am not willing to be robbed in this way by anybody. He had no right as a gentleman to imitate my design, when both of us are in competition in Vienna. If it were here in New York I would simply pity the imitator and laugh, but going to the "Palette Club-rooms," measuring and copying the whole thing, getting it up in great haste, and sending it on at his own expense at the eleventh hour, *as his idea and his taste*, is—very wrong.

After a short discussion, it was moved and seconded to give Mr. Howell a vote of censure, for conduct unbecoming a fellow-photographer, and that it should be published in the minutes of the Society. The motion was unanimously carried.

Adjourned.

EDWARD BOETTCHER,
Corresponding Secretary.

## A CALL

### To the Photographers of Wisconsin, Northern Iowa, and Minnesota.

IF all and every one of you who contemplate going to the Convention at Buffalo will please notify me, to enable me to know by the 5th of June how many might go by the route of Milwaukee, I shall make most strenuous efforts to obtain a reduction of fare for you upon all the branches of the Milwaukee and St. Paul Railway.

Allow me to urge every one of you to attend, not for the sake of the Convention, nor for the sake of the National Photographic Association, but for your own sake, for you may safely look upon the incurring expenses as seeds sown which will yield a hundred-fold I expect to report, through the July number of the *Philadelphia Photographer*, with the kind permission of Mr. E. L. Wilson, what I have been able to do.

I have no other object in view than to see the fraternity occupy the position in the public esteem which they ought to, and of which they have heretofore, to a large extent, been deprived by lack of energy.

Hoping to receive enough reports to be able to charter a special car for the Northwestern photographers, I add my address.

PH. E. THUEMMLER,
No. 138 Reed Street, Milwaukee, Wisconsin.

## MY "ANOMALOUS POSITION."

NEW YORK, May 6th, 1873.

MR. EDITOR: After several days' delay, my copy of the *Philadelphia Photographer* (May, 1873) came punctually to hand, and I sat me down to enjoy all the good things it contained, especially those articles written by myself, which, of course, I think by far the most sensitive, you know. I came to one article, however, which attracted my attention with very great muchness; written by a beloved friend, Mr. Alva Pearsall, of Brooklyn, N. Y., entitled "Chemical Manipulations and Lighting."

Now, it appears that some time during the latter portion of last year I wrote an article for Mr. Wharton Simpson's *Year-Book*, nominated "The Artist and the Workman," which has been universally perused by all who have read it attentively, and among that crowd we find "our mutual friend" Alva. When Alva had read this he became him in a mighty wroth, and he scratched his left ear with the marriage finger of his dexter flipper. He arose him up, crying out with a loud voice, saying: "This won't wash; this is too, *too* thin; I can't see it; I'll up and have a shot at this fellow, if I die for it." And, lo! and behold he shooted, and he fired him a whole broadside of blank cartridges across my bows. So I took the hint, luffed up, trimmed my sheets flat aft, put my helm down, and waited to be boarded. He soon came alongside, and leaping with his accustomed grace and activity aboard my deck, he raised his right hand, exclaiming: "Now sir, I'll box your" (I involuntarily trembled, and covered mine ears mit mine hands) "compass with you." "Oh!" said I, "ah! yes, I see," and we went below where we smiled convivially. "Now," says he, taking out a little blue-covered book, "you have written something in this y'ere book,* what I hold is not only wrong but absolutely *pernicious*" (gracious! Alva) "to advocate such a doctrine! Why do you assume this anomalous position?" Now, Alva deary, ease up your mainsheet a bit, and I'll put in my oar. In my article in this *Year-Book*, I claim that the workman (*as* a workman, mind you) can do nothing without the artist, and that "any chemicals *in good working* order will make splendid work." So they will. I further stated, "that if you light and pose like some monstrosities which I have seen, my formulæ will reproduce them in all their hideous deformities." So they will. If they wouldn't they ain't worth a cuss. Again I said I could no more turn out such work as I now produce, without my master and friend Kurtz at my elbow, than, "I don't know what." So I can't, and I'll stick to it. Now, darling, you say, "I do claim that he (the operator) is entitled to a share of the credit due, for he could easily have destroyed this exquisite gradation by the manipulation of his chemicals, and instead, made the lighting short, patchy, and hard." Good boy! you're right, so he could, and that's just the point—THE MANIPULATION.

I said never a *word* against the *manipulation;* my words were: "Let me try earnestly to induce you all to believe me, and urge you to abandon now and forever that wildest of all chimeras, *that this is done by rare and secret formulæ, wonderful collodions, and magical baths.*" *That's* what I said. You say: "He (the operator) must have a feeling in common with the artist, and prepare and manipulate his sensitive plate so as to give an image that will harmonize accordingly, otherwise the artist's labor will have been in vain."

Exactly, petty; but this very "feeling" makes the operator in some degree an *artist*, and to prove to you how exactly I agree with you, I said: "I will take certain meats, vegetables, flour, eggs, butter, lard, &c. (chemicals), and a good fire (bath), will place before two cooks (operators) a written recipe (formula). What will be the result? A. will make you a vile, unsavory mess (cast-iron negative), whilst B. will cook a dish to set before the gods" (one of Anderson's negatives, for instance). You say, love, that my article was written "either from very great modesty, or a very great desire to flatter the artist" (Kurtz). Bless you, pet, do you doubt *which?* No, of course you don't, and you are right, *'twas* my very great modesty. Oh! dear, this cursed modesty of mine has been the very bane of

* The Year-Book of Photography, 1873, p. 31.

mine existence. When I first went to Kurtz I didn't know one chemical from another (not that I do much now, by the by). Mr. Kurtz had no less than seven *operators* while I was with him. The last one was and *is* a professor (and teaches photography in the Photographic Section of the American Institute in this city), and even *he* didn't suit. Mr. Kurtz told them that he wanted to produce such and such an effect, and they had replied with commiseration that, "it couldn't be did." Mr. Kurtz, nothing daunted, told *me* to do it. I did it (using no other than their own chemicals, as I had never mixed an ounce of collodion nor made a bath in my life), and I fancy with *some* degree of success; for when I went to Kurtz, he was—nowhere, and *now* he is *about everywhere*. I don't mean to say I made Kurtz, bless you no, *he* made me. I am the very pink of courtesy. Kurtz was already made, I only helped to trot him out, you see. His success is such that tender babies cry out in their dreams, and with a wail of grief, shriek to be taken to Kurtz to be photographed. Fact.

In this same article I said: "The operator could no more have made that picture," mind you, "*picture*," not negative. No more he couldn't. Finally, you say: "I maintain that the *manipulation of chemicals is of more importance than the formulæ.*"

Why! precious, isn't that exactly what I said (*vide* the two cooks); don't I distinctly say: "Throw formulæ to the dogs?"

For heaven's sake, sweety, let's hear no more of my "anomalous position." I see that your paper "was read and received with applause, a unanimous vote of thanks being passed for the same." I regret that I wasn't present, for I would have applauded thee to the echo, which would have applauded again. I cannot commend too highly your remarks in relation to flowing the plate, &c. You are indeed to be congratulated, making as you are, by far, the best work in your city; and last, and best of all, you have not been constrained to use developer for *eighteen long and dreary years*, for I may add, without "bellowing with flippant vanity," thou hast far too much *brains*, for that, my own.

ELBERT ANDERSON.

## THE TRANSIT OF VENUS.

THE transit or passage of the planet Venus over the disk of the sun, to occur in December, 1874, will be the scientific event of the year, and extensive preparations are being made for its observance in all parts of the scientific world. Our own government has acted for once in a liberal manner towards the cause of science, giving us hope for the future, and made an appropriation of $150,000 for the expenses of expeditions to be sent out to observe the great phenomenon. The trial of instruments for photographing the "spot on the sun" has been going on some time, and we trust that the suggestions of men of experience like Mr. Rutherfurd will be accepted in preference to some we have seen emanating from gentlemen in the government service, but of very little experience in solar photography. Mr. Zentmayer, we learn, is making the instruments for both home and foreign use. We shall turn to this subject again.

THE ALBUMEN SUBSTRATUM.—On page 138, May No. *Philadelphia Photographer*, J. Parker, Jr., says in his article for cleaning glass and ferrotype plates: "White of 6 eggs; water, 6 ounces; ammonia, 1 ounce," &c. This makes a thick albumen solution difficult to flow, as he admits, and too much ammonia, which is apt to injure the *bath*. If instead he will take the white of one egg to one quart of water, and about two drops of ammonia, he will find his albumen to flow easily, on wet plates, either glass or ferrotype, and to need no subsequent washing; only drain and dry, and set away for use.—A. HESLER.

THE *Daily Graphic*, New York, continues to interest the public, and is no longer considered an experiment, we believe, but a decided success. Its illustrations are mainly produced by the Leggotype process, we believe. Some of them we cannot give credit for much good quality, but we hope for improvement in that direction. We understand that a Ross lens, costing $4000, is used for copying purposes by the Graphic Company.

## LANDSCAPE PHOTOGRAPHY.

This is the season when photographers should brush up their outdoor apparatus and busy themselves with such view-taking as they may have on hand. The foliage in most localities having been very backward is now in *just* the condition to give the best results, but it will soon be greener and darker and therefore more difficult to photograph.

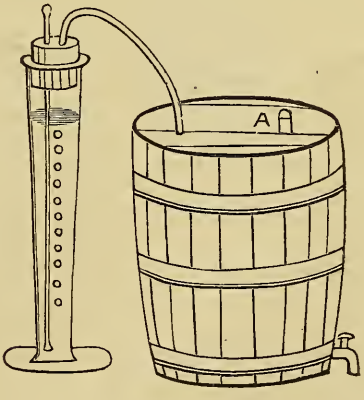
And in providing for such work permit us once more to recommend the study of that capital little book *Linn's Landscape Photography*. It will give you many excellent hints, which you *may* find out if you work long enough, but it will save you that time and trouble, for it teaches the lessons of experience. Read it before you go out, and put it in your pocket and take it with you.

Again, in photographing foliage there is much, *very* much in the collodion you use, the detail you get depending entirely upon that. If your own is good, very well. If not, permit us to suggest a trial of Hance's White Mountain and Niagara Falls Collodion. For distances, foliage, and rock, the former, and for water, fully lighted subjects, &c., the latter. Some of both should be kept in store for all classes of subjects. They are capital.

While on this we are reminded of a little *winter* landscape excursion, just made by our friend Mr. Robert Benecke, of St. Louis, and as he gives us some good practical hints, we add a few extracts from his letter, viz.:

"Since I wrote you last I have been down through the Indian Territory as far as Dennison, Texas. I send you a few prints. I was engaged by the president of the Missouri, Kansas, and Texas Railway to accompany a couple of gentlemen sent there by the editors of *Scribner's Magazine*. We had a very pleasant time, although we got stuck in the snow, going down, for over five days. I took the most of the negatives coming back, some twenty large ones and about thirty stereos, and on 5 x 8 plates. I had to do the work in four days, and without any assistance except the young man who was detailed to point out to me the different places to be taken, and who carried the box and stand. The lenses used were No. 5 Zentmayer and a pair of No. 2 Steinheil's. As dark-room I used a baggage car. I had to fight wind and dust, and lost one negative only and my silver bath, but luckily after I got through the job. I was very sorry to lose this silver bath, though I had a reserve bath along, but which I never had an opportunity to use. This bath was made in the proportion of ½ ounce of glycerin, ½ ounce of water, 30 grains of silver, acidified with nitric acid. Several times I had to walk over a mile and back, but found no trouble whatever to keep the plate in good order. But more anon.

"I have made a little apparatus which does away with the evaporating of the silver solutions in order to get rid of the accumulated alcohol. It consists of a tall bottle to hold the solutions to be doctored. The bottle is closed by a stopper perforated by two holes, through which one short and one long glass tube, reaching down to the bottom, pass. To the short tube an india-rubber tube is fastened, and the other end of it is connected with a barrel full of water. Now, as soon as the water is turned on, the air is drawn through the long tube and bubbles up through the silver solution, removing all the alcohol in a very short time This sketch will help you to understand it I hope.




"A is a hole to insert the funnel for filling the barrel with water, now closed.

"The inclosed prints were made on Dresden paper, and silvered on the following silver bath: 1 ounce of silver; 1 ounce of

nitrate ammonia or potash; 10 ounces of water; 1 ounce of alcohol and a little alum scraped into it. In hot weather I add a few lumps of sugar to it. No fuming necessary.

"Toning bath: Gold, boiling water, soda to neutralize the acid, and a little acetate of soda. Use about an hour after it is made.

"Looking over this letter I noticed that I forgot to mention that I had to leave my silver bath over eight or ten weeks standing in the daylight, before I could use it. When new a bluish film or deposit in the shadows would take place, but after leaving it standing in the strong light it never gave me the least trouble

"In my next letter I shall mention a few novelties which I introduced in my daily practice since January, 1872, and only wish that other photographers would go to the trouble to mention briefly, say once a year, what new ideas and wrinkles they have adopted."

Mr. Benecke's views are excellent, as his work always is, and we are indebted to him for many useful hints. The last one he makes above we hope will be regarded.—Ed.

## THINGS USEFUL.

(Continued from page 75.)

"I was much amused on reading the latter part of the article in the January number of the *Philadelphia Photographer*, entitled 'Our Noble Selves,' referring to the Western operator producing his revolver, &c. Does the author of the article in question really think a Western operator ever did such a thing? Does he think 'we of the West' have no artistic feeling, no gentlemanly instincts, no courtesy, that we 'push the sitter into a chair,' 'jam a rest against the head,' in short that we do not know how to be gentlemen? Let me assure Mr. H. that his 'art education' may be perfect, but he lacks one thing, charity. If he should ever come 'West,' he will find as many gentlemen in our profession as there are East. We may not be so polished, our clothing so fine, our manners so perfect, but for all that we are men, and humbly trust, gentlemen. I also notice this Mr. H. talks much about brains, thereby imitating Mr. Anderson, as he followed in the steps of Hugh O'Neil. Did Mr. H. ever suppose that he might lack a little 'brains,' or that by accident a little 'sheep brains' might be mixed with his? In all truth I think this 'brains' business, like retouching, might be better let alone; this parading of 'brains' by the 'high toned' (I do not just know what this means, but I suppose it will answer as well as any other phrase), in our profession is, very much in the nature of a contemptuous slur to us all. The quality of brains possessed by us may differ, but that we are to be contemned for that is all wrong. A neighboring photographer was in a few days ago; I asked him if he had read Anderson's book. He said 'No.' So I let him look at mine. He happened to open it at Elbert Anderson's portrait collodion formula. Read it until he came to the words 'I was just going to say brains' He laid it down, with the remark, 'I guess I have not got brains enough for this.' Now, we who occupy a lower position in the art than Mr. A. or H. have just as sensitive feelings as they, and because we cannot comprehend a thing at once or make a failure, we do not like to be twitted with our lack of 'brains.' It is not gentlemanly, it is not kind. They all lack charity. I do not want to sit in judgment, but I am tired of this talk of brains, at least in the way the dose is given us; it is nauseous; we all like our pills sugar-coated. Mr. Baker's foot-note on this subject is most excellent. Brains are not needed in the formula, for if one follows them strictly how can he go astray? The brain comes in under the skylight and in the manipulation. I know some are better operators than others, some can work at the business but a few months and soon know it all, others will be years and still be indifferent; now this cannot be attributed to a lack of brains, but simply that one has chosen his profession wisely, the other foolishly. I would only say to Mr. A., H., and others, who are so fond of parading brains, to give us a less nauseous dose, and exercise a little Christian charity. None of us object to being taught, most of us are willing and anxious to learn, but we want our lessons taught us in a gentlemanly

way; if we lack brains do not twit us of it. I will leave this subject for fear I tire you, and tell you a story almost as good as the sugar developer. One day, not very long ago, a man came in to see me, and introduced himself as Mr. ——, and stated his intention of opening a gallery in a little town some ten miles away. He represented himself as a photographer of over twenty years' experience, and I inwardly reverenced him as one of the fathers in our art, but in the course of conversation I found that he was not so much of a father as I supposed; my reverence for him was oozing away. I found that his only object in calling on me was to get information, not that I had any objection giving it to him; at last our conversation turned upon lenses and boxes. I showed him my No. 2 Ross. I sat down, and he looked through it. Said I, 'It is a pretty good tube.' 'Yes,' said he, 'but I have got a tube to beat it.' 'Have you?' said I; 'what kind is it?' 'It is a French tube, made by the celebrated Mr. Darlon' (I spell it as he pronounced it); 'they are the best lens-makers in the world; they got the prize medal.' 'Ah!' said I, 'I have used the Darlot lens, but I never liked them much, they are so much trouble to correct the focus.' 'What do you mean by that?' So I explained to him as I best knew how about the chemical and visual focus; so I told him that all kinds of lenses had two distinct foci, unless they were corrected. At that he turned to me and said, 'Mr. Hunter, I am an old operator, and when you attempt to cram such stuff down my throat, you don't know who you are talking to.' I timidly suggested that I did not. At that he asked me, 'if he understood aright that the Darlon lens was of that class, having two *focusses?*' I told him he understood me aright. 'Well,' said he, 'you are a bigger fool than I took you for. Good day.' And so he left me. What his experience has been I do not know, but he was a man ten years my senior, and a very nice-appearing person, and I do not believe he knew there was such a thing as a chemical and visual foci. I forgot to mention that he bought his tube and box from Stevens, in Chicago, and it was fitted to the box, and in all probability the ground-glass was adjusted by him. Now, I would wager considerable that he never read a work on photography." J. H HUNTER.

## OUR PICTURE.

THE very beautiful example of photography, presented with our current number, was printed from negatives made by Mr. F. Luckhardt, in Vienna, Austria.

Those who attended the St. Louis Exhibition last year will remember the wonderful specimens exhibited there by Mr. Luckhardt. They were the constant study and admiration of many, and there was always a little group around them discussing their merits and the means by which they were probably produced. Many left them with a sigh, while others went away with a look upon their faces which seemed to say "I will *equal* them if I don't *beat* them, before I die." The exhibition of those pictures no doubt did a vast deal of good, and the committee on the award of the foreign medals did well when they awarded the handsome gold medal of the Association for 1872 to Herr Luckhardt. It was a deserved tribute *Our* thoughts when looking upon those pictures ran in this wise: "Oh! how beautiful; how carefully studied in pose, in lighting; in the management of the draperies; in the choice of accessories; in the chemical effects, and in the whole production of the work how excellent! Would that we could place such examples of work before our readers, and induce them to study them, and take pattern after them." This was our covetous desire, and it did so take possession of us that we made it known to Herr Luckhardt. He responded most generously by sending negatives of six lady subjects all fully equal to, if not exceeding, those exhibited at St. Louis.

To enable our readers to see them quickly, we offered prints from the whole set to any one sending us a new subscriber. Many have taken advantage of this offer, and are in possession of the whole six. We have used *three* of the subjects for our current number, and prints of the others will appear later in the year. The subjects being all different we could make this arrangement. But even now, no one sub-

scriber will receive more than *two* of the set, so we continue to offer the six as a premium. They are worth *five dollars* to any one. Are they not?

We mount the premium sets on handsomely designed boards, 8 x 10 size for framing, and they will attract visitors to any gallery.

Mr. Luckhardt is undoubtedly leading his colleagues in Europe, to say the least, and visitors to the Buffalo Exhibition are promised a number of fresh works by him. We hope they will arrive in time, and that they will be well studied.

The prints were made for us by Mr. William H. Rhoads, No. 1800 Frankford Avenue, Philadelphia, on the Trapp and Munch Rives paper, for which Mr. Willy Wallach, 43 John Street, New York, is the agent. This paper is exceedingly popular and holds its reputation well.

The mounts were made by Messrs. Rohaut & Hutinet, Paris, France, and forwarded for our purpose especially. These gentlemen were the leaders in this line, and have done much towards cultivating good taste in the choice of photographic cards.

An article on the purity of their stock will be found on page 174. When we present Herr Luckhardt's other pictures we hope also to give a drawing of his studio, and his method of working.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*American Photographic Literature—Provident Societies amongst Photographers—A Simple Method of removing Fog Stains—Wooden Baths.*

*American Photographic Literature.*—I recently had occasion to call the attention of the readers of the *Photographic News* to the great advance in American photographic literature of late years. As the article was quoted in the *Photographic Times*, your readers may be familiar with what I said. I regret that one photographic veteran in the United States seems less than satisfied with my remarks. Admitting the fairness of my observations, so far as they go, Mr. Snelling, in an English contemporary, thinks I have not done "justice to the past." He thinks I forget, or am ignorant of the fact, that photographic journalism had its birth in America. He proceeds to admit that the earlier American photographic journals were chiefly made up from English and French publications at that time, as "there were not half a dozen men in the United States capable, or willing, to write upon the subject of photography," whilst those that could preferred the "philosophical and photographic press of England as the best means of being appreciated."

In establishing the *Philadelphia Photographer*, he proceeds to say, Mr. Wilson conceived nothing new, but simply continued the plan of a predecessor who failed by being ahead of his times. Although this matter is a little personal to yourself, I am sure you will allow me one brief word of explanation. Let me hasten to assure Mr. Snelling that I am familiar with the history of American photographic literature and journalism, and with Mr. Snelling's early labors in that field. One of the earliest books on photography which I possessed was Mr. Snelling's *Art of Photography*, which I purchased in New York upwards of twenty-one years ago, at Messrs. Anthony's, where, if I remember aright, Mr. Snelling was then personally engaged. I have seen, I think, every photographic journal which has been published in America, both by Mr. Snelling and those who succeeded him in the same walk. I mention these things simply to show that I was neither ignorant nor inappreciative of the literary progress of photography in America when I wrote the article to which Mr. Snelling takes exception. Let me assure him that I do not underrate the labors of the pioneer. But I was speaking of recent progress, and not referring to general history. But since the issue is raised, I must distinctly affirm my conviction that Mr. Wilson *did* conceive and establish *something new*, and to that fact the vitality of his journal was due.

There were other journals in existence holding the ground when Mr. Wilson started his. Where are they now? They have perished, whilst his remains more vigorous than ever, illustrating Darwin's law

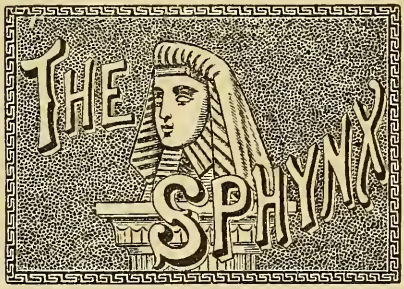
of the survival of the fittest It is not important here to estimate the causes of failure and success in photographic journals, but I take strong exception to Mr. Snelling's explanation, that former journals failed through being "ahead of the times." That being "ahead of the times" is often a dangerous piece of cant. Few things fail through being ahead of the times, if they have only strength and vitality about them. The chick which breaks the shell too soon dies, not because it is ahead of its time, but because it makes its début before it has strength to meet the vicissitudes of its position. I speak with all respect to a veteran worker, and to assure him that in exalting *recent* American progress I was not depreciating the day of small and feeble things.

*Provident Societies amongst Photographers.*—After much advocacy and discussion during something like ten years, I think that English photographers promise at last to secure the formation of some society for the relief of the less fortunate amongst their number who may be overtaken with sickness, old age, or disaster. It has been a curious thing to note for years past, the history of the idea. Everybody has been satisfied that the formation of a relief fund of some kind was desirable. Photographers have no immunity from misfortune and the indigence which generally follows in its track. Life in the darkroom is not more than usually conducive to the highest condition of vitality. Other trades and professions, younger and older than photography, had formed guilds, in the purposes of which relief of distressed members bore an important part; why should not photographers do likewise? The wealthier members of the community offered liberal contributions and encouragement; but *no one set about doing the preliminary work.* Everybody seemed to look for a *Deus ex machina.* And hence no actual progress was made. A few working photographers have at length set to work, held a preliminary meeting, and formed a committee. If the same prudence characterizes their future efforts which appears to prevail now, I think I shall be able shortly to tell American photographers of the definite establishment of a provident fund by their English brethren. The precise form is not decided; but I think that a combination of the principle of a provident society in which every member has a claim in definite ratio to his subscriptions, in sickness or old age, with that of a benevolent society by which, in case of necessity, more extended aid can be given than the mere beneficial society could afford. Already you have, I believe, something of that kind in connection with the N. P. A. How does it work?

*A Simple Method of removing Fog Stains.* — A correspondent sends me a simple method of removing the foggy stains which sometimes occur in pushing development or intensifying. He says:

"Having to photograph some race-horses lately, some distance from home, I left the intensifying and fixing until I returned. One of the negatives, although sharp and good, was rather underexposed, and in the process of intensifying fogged badly in the shadows. Not wishing to take the trouble of the journey, &c., again, I was anxious to try and save my spoilt plate. At this juncture I remembered that nitric acid dissolved the deposit of silver; so fixed, washed, and dried the negative as usual. I then poured a few drops of nitric acid on a clean glass plate, and, taking a small soft brush, painted the fogged parts of the dry film, and, to my satisfaction, completely removed the fog, and of course saved my negative."

*Wooden Baths.* — I recently reproduced the suggestion of one of your correspondents, Mr. Chute, I think, for using a wooden bath made waterproof by the application of tar. An English correspondent writes to me to suggest a modification of that plan. He says: "Respecting the use of tar for making baths, might I suggest the use of pitch, which is better, from two causes: there is no smell, it is 'dry' immediately, and the operation is completed. I have used it now four or five years, both for baths and trays. Purchase the pitch at any oil shop, place it on the fire, and boil up once or twice. Then stir it with a *candle;* this makes it more fluid, and makes it adhere firmly and prevents its chipping off the wood. It is perfectly safe for silver solutions."




*Queries.*

1st. Is there any *safe* method of separating an ambrotype from another piece of glass that has been cemented together, say with Canada balsam. I have a job of repairing several that look as if air had got between the pieces of glass, nearly spoiling them.

2d. Will those who are working T. & M. paper successfully, tell how they do it? I used to work it to my entire satisfaction, but can't do it lately. I floated on a new 58 grain bath, slightly acid, two minutes, fumed fifteen. Face of paper was nearly covered with a metallic-like surface, or as if the gloss had been eaten off by the ammonia, leaving it very dull, which however cleared up bright when washed. What was it and what caused it?

Floated other pieces, about the same time, fumed less to avoid the above. Paper was so awfully *mottled* had to throw it away.

There were about 4 ounces alcohol in about 80 ounces of solution.

Have tried to work it with 60 down to 25 grain bath, but not with results I used to get.

3d. Made some collodion thus:

| | |
|---|---|
| Alcohol and Ether, each, . . | 10 oz. |
| Iodide of Ammonium, . . . | 80 gr |
| " Cadmium, . . . | 20 " |
| Bromide of Cadmium, . . . | 10 " |
| " Ammonium, . . . | 30 " |
| Cotton "Snowy," . . . | 5 gr. to oz. |

Let settle and it will look perfectly clear. Then gently shake and see the cloudy or milky streaks. What's the matter there?

Don't like to ask Sphynx many questions lest it have a "vision" and annihilate me, as somebody must have been by the first "vision." G. R. E.

Is there any way to mount prints without having the mounts cockle and curl out of shape?

I have tried all ways I know of, and my cards as well as my larger mounts curl.

Please state as explicitly as possible, and oblige A. L. M.

I have had some trouble with albumen, the prints getting soft, like a jelly, on the face, after the prints were toned and fixed. I used Clemons's paper. I could not tell what was the cause. Would like to know. Has not appeared the last two weeks.

Yours, GRIT.

# Editor's Table.

PICTURES RECEIVED.—From Messrs. Buchtel & Stolte, Portland, Oregon, we have received a number of cabinet size pictures, which in pose, lighting, chemical manipulation, retouching of the negative, and other good elements, rival the greater part of the work done in the East, and are highly creditable to the gentlemen who produced them. We hope these gentlemen will make a display at Buffalo. See Mr. Buchtel's remarks on the National Photographic Association on another page.—Mr. E. P. Bushnell, Jefferson City, Mo., has sent us a composition group of original design of the Twenty-seventh General Assembly of the State of Missouri, which evinces great skill and patience, and which is a specimen of good work. Those about to get up such groups would do well to learn the *modus operandi* from Mr. Bushnell.—Mr. Silas Selleck, San Francisco, California, favors us with some examples of excellent work. It is a pleasure to have our subscribers feel that we have interest enough in them to be glad to examine specimens of their work. It delights us to know of their progress, and we wish we had the time to respond at length to all the pleasant letters we receive from such men as Mr. Selleck. We *rejoice* in your success, even if we do not tell you so. Mr. Selleck is one of the oldest and best workers on the Pacific Coast, and a man willing to give his neighbors credit for their attainments too.—

Mr. T. S. Johnson, Chicago, has sent us some more *genre* pictures, the best one of which is called "Putting on Skates"—a young man and a young woman and skates, and you can imagine the rest. Mr. Johnson improves in this specialty, and we hope in due season to have one of his pictures for our magazine.—We also have examples of their "everyday work," from Messrs. Fosnot & Hunter, E. Finch, and S. S. Hull, Carbondale, Pa. The latter gentleman is making excellent work, and work that ought to shame his elders. He is evidently a most careful and cleanly operator.—Mr. J. W. Morgeneier sends us a photograph of himself of excellent quality, the whole picture, negative, retouching, and print, having been made by his son at the age of eighteen. There is much promise in that young man, and the future of our art *depends* on just such as he.—"What are you going to do about it?" is the title of a picture from Mr. L. C. Mundy, Utica, N. Y., representing two ferocious bull terriers, face to face, each waiting for an answer to that unanswered question. From the size of their heads we judge that their intellectual powers exceed their physical.

Landscape Work.—Some exquisite stereoscopic gems of views of Northern New Jersey have been received from Mr. Doremus, Paterson, N. J. Mr. Doremus proposes to do much of this class of work during the summer, and will no doubt make a success of it, for he has the eye of an artist and the skill of a first-class photographer.—Mr. C. P. Hibbard, Lisbon, N. H., has sent us some creditable ice views, but they could be improved, as most work can. Good collodion is a great essential for such subjects.—Mr. H. P. MacIntosh, Newburyport, Mass., has sent us some views of the "Haunted School-house," "where the spirits make the broom and the dust-pan fly about the room."—Mr. C. H. Tallman, Batavia, N. Y., has issued a new catalogue of stereoscopic views of Watkins and Havana Glens. The views, so far as we have seen, are good.

Items of News.—Mr. G. W. Edmondson, Plymouth, Ohio, has opened a new gallery, and issues a photograph of it with the local newspaper. Enterprising.—Mr. Charles E. Wallin, Fort Wayne, Ind., has also opened a grand new establishment, and lately had a fine reception attended by all the *elite* of the city. Mr. Wallin is a worker in all senses of the word.—In our last we stated that Mr. M. M. Griswold was deceased. It should have been Victor M., his brother.

Quick Returns.—Mr. Frank Jewell, Scranton, Pa., whose excellent photograph embellished our last number, writes, after saying what a pleasure it was for him to do the work, "Why, sir, my reputation has already, by means of my picture, reached Providence, and a photographer there has written me 'that if I can *average* as good work as that, he would give me a situation at $20 per week.'" Permit us to say to all who covet Mr. Jewell *so much*, that he owns a prosperous business in a live city, which business makes him a Jewell worth several sums like the one named per week.



The Crawshay Prizes.—Full and further particulars concerning these prizes, offered by Mr. Crawshay for superior work, will be found in our *Specialty* column. We hope our readers, who can do it, will not forget to compete for these prizes.

Books Received.—*The Legend of the Wandering Jew*, a series of twelve designs, photolithographs by the Rye process (Rockwood Photographic Engraving Company, New York), from drawings by Doré, with an explanatory introduction. George Gebbie, publisher, 730 Sansom Street, Philadelphia. $2. An interesting book for the students of Doré's works, and giving one a cheap way of obtaining some of them.

*Manual of Photography*, based on Hardwich (English), by George Dawson, A.M. Philadelphia: Lindsay & Blakiston, American publishers. $2.25. Hardwich's Manual was always excellent. Mr. Dawson has clipped and interpolated much, but we cannot assent to the statement that it is improved. There is much of value in Hardwich (the original) which we cannot find elsewhere, and it should be preserved. However, there is much good in this.

Portraits Received.—We have received examples of their work from Messrs. J. G. Bar-

rows, W. A. Manville, R. B. Lewis, Flower & Hawkins, J. Pitcher Spooner, and Ormsby, of Chicago. It is a splendid privilege to know that these gents are making such capital work.

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Italian Photography.—Our friend Sig. Ottavio Baratti, of Ivrea, Italy, has sent us a very interesting work containing several beautiful photographs. The book consists of a series of criticisms on the statues and paintings in the Second National Exhibition of Fine Arts, held at Milan in August, 1872, and which first made their appearance in the newspaper called the *Pungolo*, over the *nom de plume* of "Yorick."

The book is dedicated to Ishmael Pascha, Khedive of Egypt, and the style is light and facetious to a degree.

The critic speaks in very high terms of the statue (page 16) representing the genius of Franklin, by Giulio Monteveide. If only one-half of what he says of it is true it must be a remarkable production. The statue is supposed to be animated by the electric spark (you can distinguish the rod), and "you see," says the critic, "the head accompanying every movement of the arms; the back curving itself in delightful undulations, the hands tremble, the fingers stretch themselves out, the legs hugging fast the stone, the feet contracting themselves, the wings flapping, &c., &c. The electric spark invades all parts of the body, and puts in motion every nerve, contracts every muscle." The whole work is beautifully gotten up.

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Life Membership of the National Photographic Association. All loyal members of the National Photographic Association who can afford it should become life members. It is cheaper and helps the Association *now*, when it needs funds to make it a permanent thing.

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Waiting at the Stile.—Messrs. Robinson & Cherrill, Tunbridge Wells, England, have sent us a copy of their magnificent combination picture, "Waiting at the Stile." It is an exquisite work of art, representing a charming landscape in a charming light, and a rustic maiden "waiting at the stile." As we look upon it we find ourselves humming the old tender love song, "Somebody's waiting for somebody"—

"Thrice has she been at the gate,
Thrice has she listened for somebody,
'Mid the nights stormy and late
Somebody's waiting for somebody."

We shall have to do something to induce our readers to practice this sort of work, so very beautiful are the results.

Mr. P. A. Mottu, our esteemed correspondent at Amsterdam, Holland, has favored us with some beautiful examples of portraiture, fully equal to the average work which comes from Europe in all particulars. Holland not only boasts of such photographers as Mr. Mottu, but it also publishes a photographic magazine, *De Navorscher*, of which Mr. Mottu is the editor. Mr. Mottu has also sent us some excellent photolithographs of outdoor views.

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Photographs of Diffraction Gratings.—Mr. John M. Blake, New Haven, Conn., has sent us a glass picture of one of Mr. Rutherfurd's diffraction gratings of 6480 lines to the inch. The Edwards process was used to make it, and the result proves the extremely fine deposit secured by Mr. Edwards's method. The prismatic colors, as seen through this photograph, are really finer than when viewed by means of the original ruling.

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Messrs. W. H. Allen & Brother, Detroit, Mich., have sent us a specimen "porcelain effect," by the Van Deusen process, advertised in our present number, and also burnished by the Van Deusen burnisher. The result is a very successful one, by the process, and one far superior to the mezzotint, there being no harshness about it at all.

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Mr. J. J. Atkinson, the eminent stockdealer at Liverpool, England, calls his establishment the "*American* Photograph Warehouse," and has agreed to receive and forward parcels to the Buffalo Exhibition. American photographers going abroad should surely call and make the acquaintance of Mr. Atkinson. They will be well received.

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Thanks to Mr. F. Gutekunst, of this city, for excellent examples of photography, than which there are no better.

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Laid Over.—The press of matter in behalf of the National Photographic Association, compels us again to lay over several valuable papers, Mr. Webster's spicy Mincemeat, Mr. Melander's excellent article on Collodion, and the proceedings of several societies, received too late. Please bear with us awhile longer. It is as trying to us as to you.

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Atkinson's Safety Mail Envelope.—Photographers who have trouble in mailing their pictures should read the advertisement of this new article. We shall describe it in our next. Meanwhile, get a sample and try it.

THE

# Philadelphia Photographer.

Vol. X. JULY, 1873. No. 115.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## TO ADVERTISERS AND OTHERS.

As announced in our last number, which was issued earlier than usual, we issue our current number also ahead of time, and shall likewise do so with our August number. This is done in order to facilitate our work in behalf of the N. P. A. Convention, so we trust it will give dissatisfaction to no one.

The duties of the Permanent Secretary are by no means light, and coming with our regular work makes us desirous of getting ahead with the one to make room for the other.

Our regular advertisers, and those desiring matter in the August *Specialties*, will please make note of this therefore and oblige us with their changes, &c., by July 10th. We cannot receive anything and guarantee its insertion later than that.

The report of the proceedings of the Convention we hope to give entire in our September number, which will also be issued early, and matter for it must reach us by the 10th of August.

After that we hope to resume our usual regular habits.

As all these changes we believe to be *for the good* of the majority of our readers, we trust we have not presumed too much in making them. Our agents should send in orders for extra copies of our September number in advance, in order to secure them, as it will contain matter equal to three of our usual issues, of great value, and will be in demand. Carefully read all concerning the N. P. A. in this number.

## A FEW CONSIDERATIONS
### For the Considerate, Concerning the Next Convention.

THE photographer who is wide awake and progressive is interested in everything that pertains to or relates, remotely even, to our art. The science of physiology, for instance, might be supposed to contain not much of anything to affect photography, but besides the general statement that people should be in good health to obtain a favorable likeness, we know that users of tobacco, subjects under the influence of liquor, children who are candy-fed, &c., are very unreliable sitters, apt to move, to have stupid expressions, and to be generally uncontrollable.

If thus from a field which seems at first sight so remote, we can draw facts of direct interest worthy of study, how much greater is the necessity of accurate observation when we come to those branches of mechanics and chemistry which we daily use. This is no new thing; we all know and feel it; we read the journals clear through, advertisements and all; take trips to the centres of

trade, to inspect the novelties in apparatus and stock. To me—and I hear many say the same thing—it is very interesting to look through a collection of well-appointed apparatus and nicely arranged chemicals.

Our Conventions afford peculiar facilities for such inspections. We can see rival boxes side by side and rapidly examine corresponding points in each: a very favorable manner of comparison; so of head-rests, camera stands, &c., &c.

I trust that I will be pardoned for alluding to the fact that there has been a feeling in our Association that the stockdealers ought not to have much space; that the show was for photographs, and that the dealers should take the back seat. Undoubtedly the exhibition of specimens of pictorial art is one of our main objects, but, what a convenience it is to most of us at the same time to examine the various new inventions of our mechanics and chemists. It saves perhaps a tedious journey and time that could ill be spared. "But," says one, "it is an advertisement to them; they ought not to run this thing, it is for photographers." Here are two questions. Obviously the dealers could have an advertisement without "running" the Convention. As to the advertisement, granting it, what possible harm is done? Is the advertisement out of order? What then are the magnificent exhibitions by some galleries; don't they advertise, too? Is any one injured or offended at that? As to the "running," if the dealers should run us, they might do it better, or worse, than we could for ourselves; they might do it for their advantage, or for ours, or to mutual benefit. Charitable doubts, at least, can be suggested. But what has the conduct of these men been? They have given considerable sums to forward our objects; by one of them, annual medals have been established. When a whisper arose, they, to a man, retired from having voice or hand in the management; when our hall has been ample they, in one instance, occupied considerable space, but to the exclusion of no one else; when there was less room, they quietly curtailed their part of the show. On no occasion have they shown a desire to push their enterprises to the injury of our highest objects.

In view of all the facts of the case, as one individual member of the Association, I hope to see all our stock-houses well represented in the approaching Convention. Officially, I would say—and in saying it I hope I do not overstep the wishes of any member—that in Buffalo we shall have plenty of room, and we want you all to send us something; we shall need something from each of you.

In this Exhibition GIVE THE STOCKDEALERS A CHANCE; no one shall be pushed to the wall for it. Full information is given in the present number to all classes of exhibitors when and how to make application for space, and how to send.

W. J. BAKER.

## Photographic Mutual Life Insurance.

BY MRS. E. N. LOCKWOOD.

THERE is not a photographer in the United States but what has felt, in some manner, the influence of the National Photographic Association; and yet there are many who still stand aloof, content to receive what benefit they may therefrom without exerting themselves to help sustain it, and realize a still greater good.

I believe I have a plan in view which will have a tendency to arouse the indolent, and induce them to join with the workers, and at the same time make every member of the National Photographic Association feel an INDIVIDUAL *interest* in its continued success and number of members, viz.:

If the Association will enter into an agreement, that the family of any member of the National Photographic Association in *good standing*, shall receive on his or her decease, the sum of one dollar from every remaining member; also, should any member become disabled by accident, disease, or age, and unfit for any work, they shall receive the same appropriation, *unless they are addicted to intemperance.*

I think this course will induce many to join our numbers, for no one can be so blind as not to see it will equal a nice little sum in the savings bank to benefit their loved ones,

should they be suddenly called to leave them forever, and it will be in a *safer* bank than any other, for there is no danger of the managers running away or becoming insolvent. Neither is there any danger of the fatality becoming so great as to tax each member equal to the common rate per cent. of the insurance companies.

I hope this question may receive some thought from every reader of the *Photographer*, and be brought up before our next convention, and meet with favor; for I think much good will grow out of it, if accepted.

## BRAINS!

BY WILLIAM HEIGHWAY.

To a man not endowed with the disposition of an angel there is nothing so utterly exasperating, so well calculated to raise all the bile in his composition, as a hint that he is lacking in good nature. Now, here is a gentleman who actually, with the thermometer boiling in the nineties, wants to quarrel with me about—what do you think? of all the ridiculous things in the world! —BRAINS!

I averred (in January *Philadelphia Photographer*) that *we*, the photographic WE, lacked brains, and my misguided assailant with immense ingenuity fits on the cap, and finding it a tight fit, querulously queries, "Did you ever suppose that you might lack a little brains, or that by accident a little sheep brains might be mixed with it?" This is putting a head on me with a vengeance.

Now let me be calm? I do not wish to make matters worse by abusing Mr. Hunter, though he has attacked me in a vital spot. I might wildly rave at being misunderstood, and wonder that any one should take as a personality a general charge, one that does not really touch any reader of this magazine, or I might forthwith assume the war paint, the insinuating club, and persuasive scalping-knife, and set out with monotonous chant on the warpath, to raise my irritable assailants "haar," and measuring out his brain in a graduate, set at rest the question of his intellectuality forever. Again, I might wither him with sarcasm. What has he to do with the brainless ones, or the brainless ones with him that he should champion them?

But no! rather let me mildly expostulate with him, let me soothe his ruffled feathers, and say that the article to which he takes such grave exception was prompted by none of the egotism and illnature he gives me credit for.

Of the allusion to the Western operator and his peculiar mode of handling his sitter, I should hardly think it necessary—as I thought it wholly unnecessary then—to give the story in detail. Suffice it to say that there *is* such a story, which I thought was as well known as it is good, nor do I see that its truth or ridiculousness affects its merits as a story to be told or quoted. If the gentlemen of the West are maligned in this instance, how many stories are told at the expense of the gentlemanly, educated, polished, and talented butchers of art in the East

(N. B.—For fear of being misunderstood again, this is written in sarcastic vein.)

But the real *casus belli* is the brain business. I think no one can admit that, however large and level our heads are, there is no objection to an accession of talent, education and brains. Believe me, we shall not suffer by it; the more culture and artistic feeling we bring to the service of the beautiful art we practice, the more we conduce to the advancement for which we are all striving—to raise it above the mean position it has lamentably taken, because brains were despised for so long a period.

Why! oh why, should a gentleman, possessed of the talent which Mr. Hunter's article undoubtedly evidences, go so far out of his way as to sharpen his quill in behalf of such a lame, lost cause? And why should he glory to identify himself with men whose boast is that they have no brains and don't want any? Perhaps Mr. Hunter feels that no one would believe it of *him*, but very often a man's mock modesty is taken for truthful utterance.

In bidding Mr. Hunter *au revoir*, let me express the hope that he will take stock of his own mental capacity, and hold brains at its own superlative value, and (with proper modesty) place a proper estimate on the

talents with which nature has bestowed him, and strive to improve his advantages.

I was going to ask the meaning of the title of his article, but he has unconsciously well named it, for among the list Brains comes first of "things useful."

## Our Extra Premium Pictures.

THE "taste" which we gave our subscribers in our last number of the style of the six elegant pictures we offer as a premium to them for a new subscriber has set many of them to working hard in order to secure them. As a result our subscription list is swelling, but not by any means as rapidly as we should like. Unless more "hard work" is done during the present, the *last* month of our offer, we fear the number will not be great enough to induce us to enlarge our magazine as we proposed. We hope the thing will be taken hold of in real earnest now and pushed hard. The pictures alone are worth all the effort you *can* put forth to secure a new subscriber, to say nothing of the other good things you get to pay you for your trouble.

Mr. S. C. Wright, of Battle Creek, says, "In regard to the premium pictures they are perfectly elegant, and are much admired by my customers and myself." Mr. W. E. McKecknie, Toledo, says, "I can scarcely express my admiration of them. I would not take twice three dollars for them and be without them." Mr. J. D. Dunn, Meadville, says, "They are almost photographically prodigious, viewed from my standpoint. I shall place them among my jewels."

We hope, therefore, that the demand upon us for them will keep us busy enough during the last month of our offer. Work hard; the time is short.

MR. E. P. SPAHN, Newark, N. J., has sent us a very useful contrivance, in the shape of a wall-album, if we may so call it. It is a huge album, holding nearly one hundred cabinet-size to eight by ten pictures, and so contrived as to hang on the wall in a position rendering its examination quite as easy as if lying on a counter. It will be found very useful indeed in the reception-room.

## A Fine Thing to be a Photographer.

YES, this is the idea exactly, the country over, and many a young man, all buoyant with hopes, starts out, measuring the future by his great good heart and huge muscles, ignorantly classing the art of photography with all other kinds of business—easy enough to learn, of course; gets a situation, but upon trial he occasionally finds out (if not too conceited) that his huge muscles (though a credit to any man) are not of any special use in dark-room "fining down," his large heart (though a God-send) is of no particular benefit to him in studying lights and shades, and if he is fortunate enough to see for himself in season that the business on the whole is of that kind calling more particularly for *mental* effort; or if he should *not* happen to find it out for himself, and upon being told by his instructor that such was the case, and if received kindly (it being given in the same way), why then the young man, whoever he may be, is certainly deserving of favorable consideration.

But there is a class of apprentices who "can't see it" in this light, and who are so wrapped up in conceit, in addition to their natural aversion to all mental effort, that it is utterly impossible by any effort you may put forth to raise them to any higher plane than that justly deserving the appellation of stupid daubists. Such persons could not be more kindly treated, to say the least, than to be advised to seek *any other* occupation, be it honorable, than that of engaging in one requiring, as it does, the highest order of mental perception, and I would suggest here, which I think is a duty all photographers owe to themselves and to the fraternity at large, viz., that in admitting apprentices at first, *make no specified bargains* or give no alluring encouragements; take them on *trial* for four or six weeks to see if they have the element *in them* to make a workman (all good photographers know what that element is), and if it *is* in them do your best by them, help them to grow; but if it is *wanting*, kindly advise them to seek another calling. It must be apparent to the most casual observer that already we have too many poor photographers in the country, men doing all, as it were, by *main strength* and *stupidity*, *mechanism* first and

last; everything regardless of atmospheric changes is made to run in *grooves*, and when the *grooves* fail, "the thing is played." This is not at all necessary; *all* should study to do better work upon intelligent principles; never be satisfied with your present attainments; work for some *glory* as well as *all* money; remember good negatives on hand are money at compound interest, and every picture sent from your gallery is an advertisement for or against you, and do not flatter yourself that because you have succeeded in getting rid of a poor picture on the strength of the sitter's ignorance, that it was not a bad job—*it will tell on you in time.* Then I repeat, let us all who are in the business study to do *better work*, and those who think of learning it, and before investing too far, be sure that you have the taste and the ability.

N. E. G.,
Warren, O.

## HINTS FROM THE RECORD OF AN ARTIST AND PHOTOGRAPHER.

BY JOHN L. GIHON.

(Continued from page 165.)

Our latitudes are now being registered by single figures. The air we breathe is very analogous to that of our skylights "at home" in July and August. My experiments with the quadrant are very discouraging, for old Sol makes his rays glaringly unpleasant. The pitch bubbles up along the seams of our deck, and jig-dancing might be acquired with no other tuition than would result from indulging in bare feet. We have lost the "northeast trades," and the sea its white-caps. Long heaving billows have replaced them, and on these our bark sluggishly rolls with but little forward motion. We become more oppressed with "ennui," and are delightfully startled when we discover brilliant masses of color gliding in the depths below us They gradually approach, and their before indistinct forms resolve themselves into those of half a dozen dolphin. Oh colormen! where are the emeralds, azures, and the golden hues; and where are the skilful hands that can ever image these glorious creatures? More murderous ones are, however, ready, and a stalwart figure may be seen, standing with admirable balance, on some projecting point of our craft. He holds a veritable trident, and with unerring aim dashes it into one of the shining tribe. Then follows a splashing of the waters, a rapid hauling in of the line by which the weapon had been secured, and then, in an instant, transfixed by the cruel prongs, we have upon the deck, a gasping, struggling, and dying object, rivalling and excelling in its changes of hue the properties of the famed chameleon. Dolphin is beautiful to gaze upon; dolphin is good to eat. The capture is succeeded by others, and, per consequence, during the ensuing week our breakfasts, dinners, and suppers are made memorable by the presentation of dolphin, stewed, fried, baked, devilled, and chowdered. Dolphin becomes monotonous.

Another excitement attends the fishery department, and the history of it necessitates a preface explaining the fact of our having a little dog for a passenger. I should relate how that suffering animal became infested with little black jumping things, common to most dogs, and how salt water baths were recommended for their speedy extinction. Due regard to little Juan's safety caused the master of the ceremonies to attach him to a bow-line previous to dousing him into the sea. On one of the interesting occasions, when this performance was being enacted to the great delight and intellectual edification of a numerous audience, a new actor claimed our attention. A long, shadowy, sombre fellow he was, and might have escaped notice had he not laggingly approached, and turning up his white belly, opened his capacious jaws, and endeavored to re-enact the drama of Jonah with himself and our four-legged Juan as the leading characters. A quick jerk, productive of much yelping, brought the latter performer safely among his sympathizing friends. As it would scarcely do to cut the play off so abruptly, a piece of pork, into which an enormous iron hook had been cunningly insinuated, supplied his place. Mr. Shark proved himself unmindful of nice distinctions, and as readily gulped the bait as he would have swallowed the living morsel.

Instantly, a magic change possesses the group; from expectant sight-seers they become insane actors, and a Babel of voices aids in making confusion worse confounded. Recognized authority finally interferes, and by direction a bowline is passed, not without great difficulty, around the monster's body. Half a dozen strong men work with a will, and presently there thumps upon the deck a fearful mass of flesh, one of God's most dreaded creations, one, whose fellows have ever carried with them awe, destruction, and death. Sailors can scarcely be blamed for their fiendish delight in mutilating such a carcass, and they certainly take care to indulge in it upon all occasions. The vitality of the shark is fairly incredible, and I have seen their bodies exhibit powerful muscular contortions long after having been deprived of all vital parts. Attempts to bleed them to death are often made, but Gloster's command in reference to the Duke of Buckingham is here reversed, and is literally rendered, "Off with his tail." Removing the peculiar appendage you will have ample opportunity to verify the physiologist's assertion that fish are cold-blooded, for an icy though gory stream will spurt out, and in its long-continued flow will ensanguine all around. This fish is also edible, but the universal sentiment was that of the countryman who said that he "*could* eat crow, but didn't hanker arter it." A sailor desirous of endowing himself with everlasting courage claimed the quivering heart for his own lunch, another carefully cut out the back bone to be fashioned into a walking cane, and a third secured the vicious-looking jaws with their rows of serrated teeth as another trophy. A few strips of skin were secured as substitutes for sand-paper, and then the loathsome mass was heaved overboard, doubtless to be soon gulped down by some other of his cannibal tribe.

And now we approach the mystic circle of the equator. Speculation is rife as to whether the great sea king will honor us with a visit, for it is remembered that cautious and well-directed inquiries some time since discovered the mortals who had never before travelled this far. These unfortunates directly became very uncomfortable as the dread of certain traditionary rites seize their minds. Curious smiles enliven the faces of the others as they express their belief that Neptune has heard of our coming. It is Saturday, and we know that during the night we shall "cross the line." As the day wears away huge mountains of clouds loom up around the horizon. Within view, but at great distance, several heavy rain-squalls darken the surface of the waters beneath. The descending black lines of one of them contract. The cloud itself seems fearfully agitated, and a portion of it becomes funnel-shaped with its cylindrical end dragging along with a serpentine, irregular motion. A misty vapor arises from the ocean and attaches itself to this dangling end. The whole forms into a column resting upon the sea, and apparently supporting that roof of darkness. It moves along as if trying to meet a far-off vessel that we fear is perilously near to it. Now the stem narrows at its base, becomes indistinct there, and suddenly vanishes. The funnel is drawn up, and in its place we behold a rainfall that would remind us of the deluge were we beneath it. We have seen the birth, course, and dissolution of a waterspout. A gorgeous rainbow builds up its arch, and then the setting sun sinks beyond the waves like a mass of fire, the whole scene likening itself unto our imagination to the opening of some heavenly furnace, streaming its rivers of molten light towards our very feet. Twilight succeeds, and brings a peculiar, melancholy silence. There is no wind, the sails hang limp, and useless from their supports, and the heaving billows are unbroken by even a ripple. The noise of a fish, darting into the air and falling back with a heavy splash, makes the all-pervading quiet doubly intense. The tropics call upon the very heavens to aid in asserting their peculiarities, and as we lay upon the decks, watching the mastheads describing all sorts of eccentric curves among the constellations, we are almost inclined to wonder if the moon, now so beautifully rising, is the same that nightly gilds our housetops at home.

Such a night under the equator—hold—our ship's bell is clanging furiously. What's the matter? Two or three blasts of a trumpet; the sounds are very like those made

by boys on Christmas eve. All hands rush forward, and behold a strange figure slowly clambering over the rail. Fantastic and weird it looks in the moonlight, and if he is a man he is surely one made up from the contents of a ship's lazaretto. Hempen locks and beard reaching to his knees, chains rattling with every motion, and shreds of canvass and coils of rope trailing behind. He makes his way to the quarter deck, and speaks with *such* a voice.

"Avast there! Captain; so you're invading my dominions again, and with a lubberly crew, and carrying strangers too."

"Why, Mr. Neptune," quoth the captain, "it is true that there's a couple of young men for'ard that have never paid you their respects, but as to the passengers, you know, you'll have to be easy with them."

"Well, then, since you're so awful pressing, I *will* take a drink with you, and I'll attend to the lads, and as to the cabin folks, there's such things as fines, you know, that'll rid 'em of trouble. I'll think on it; I'll think on it. Come, my hearties, is the barber shop all ready?"

"Aye, aye, sir," from the crew.

The party, led by Neptune, proceed to the forecastle deck, and our own fears being overpowered by curiosity, we are induced to join the motley throng.

The sea-king draws from his girdle an enormous pair of shears fashioned out of a couple of strips of lath, and a ponderous razor, also of wood, but more ingeniously constructed. He thwacks an antiquated Dane with them alongside of his chops, and dubs him the Royal Barber. The initiated seamen were called upon to act as assistants.

"Where's the little lad I smelt as I come along?" And at the question a couple of tars search for and drag between them Tom, a sturdy specimen of the John Bull genus. He is brought to the chair, that is, he is made to stand very near to and rather above a large cask ominously filled to the brim with salt water.

"Lather and shave, lather and shave," are at least the words of the song that is now acted upon. Night's obscuring mantle prevents too critical a view of performances that daylight would discover to be decidedly vulgar.

The victim is stripped, and a brush well charged with tar smeared over his person.

"What's your name?"

"You know well enough; my name's——," and before the sentence is finished an assistant with another tar-brush obstructs further utterance.

A few more questions, and as many half-choked responses, mingled with exclamations more fervid than polite. The razor is applied with a motion vigorous enough to strip the bristles from a scalded hog.

"Wash him! Wash him!" and at the injunction the watery contents of half a dozen buckets deluge the youth; his legs are skilfully tripped up, and he plunges head foremost into the filled cask. Scrambling out, he hurries on some dress, and is foremost in aiding like services administered to his successor. Those of the crew who had never before "crossed the line" were in turn favored, and the washing of the last victim was made more interesting by the skilful discharge of the buckets, which was so directed that our little party received a good drenching, it having been concluded by the principals that any further tonsorial attentions to us would be inadmissible. During the laugh and confusion attendant upon this denouement Neptune escapes down a hatch, and as his old clothes are soon after tossed upon the deck, he is reported to have passed through the bottom of the vessel to his own realms. So much for ye ancient custom, now more frequently honored in the breach than in the observance.

The moon is now on the wane, a light breeze ruffles the surface of the waters, and fills our sails. We retire to our respective rooms, whilst the occasion that gave rise to the last few incidents admonishes us that we have successfully accomplished much more than half of our voyage.

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Mr. J. H. Morrow, the microscopic photographer of New York, is in Texas, trading mustangs, &c. Recently he traded for a mustang, which left rider and saddle in the road; and since then, even with his most powerful microscopic camera, Mr. Morrow cannot see a trace of his mustang. He does not think he will return to—Morrow.

## PHOTOGRAPHIC MINCEMEAT.

THIRTEENTHLY. We are now supposed to have all of our chemical combinations prepared for the production of negatives, and we proceed to make one. There are, however, other arrangements necessary before we can produce good work that will be treated upon in future papers. The sitter comes up, and is shown to the toilet-room. If a lady, ask her about how long before she will be ready, in order to give you a chance to dip your plate in time for her, so as not to keep it too long in the bath, nor to be obliged to hurry it up too much, as both of these mistakes, as a general thing, produce bad results. Take the plate, carefully remove whatever of albumen or dirt there may be on the back of it, hold it between the thumb and forefinger of the left hand, *at the lower* left-hand corner, nearly horizontal. With the right hand remove the stopper from the collodion bottle, and pour sufficient collodion on the plate to cover it a little above the centre, and by a gentle tip allow it to run, first to the right upper corner, then over to the left upper corner, thence to the left lower corner (being careful not to let it run against the thumb), and allow the surplus to run off the lower right-hand corner back into the bottle, during which keep up a gentle rocking *fore and aft*, to prevent ridges. Do not rock too fast, or clouds will be the result. Replace the stopper, and return the collodion to its place, and when the collodion has sufficiently set immerse it in the silver bath, and tip the dish gently forward, in which position it should remain until coated. This position, *with the back of the plate up*, prevents whatever of foreign matter the solution contains, held in suspension, from falling on its surface, and is a great preventive of pinholes. Cover the dish with a piece of velvet, and proceed to arrange for the sitting. Sometimes the posing, lighting, and focussing can all be done before the plate is ready. I would not, however, advise the whole to be done ready for the plate until the plate is ready, as the time to them seems too long. It is better to make a general preparation, and then have the plate at hand, after which go into particulars. Expose long enough to secure *full detail in lights and shadows*, for be it remembered that good photographs are not black and white, but *light and dark*. The whole anatomy should appear in the high-lights, while the shadows should be sufficiently transparent to allow all of the anatomy to be seen through them (more upon this point after awhile). When the exposure has been made, proceed to the dark-room and apply the developer. I cannot describe that operation as well as Mr. Pearsall did in the April *Philadelphia Photographer*, 1873, and will refer to his able paper on the subject. It accords with my experience so thoroughly, and is such an able paper, that I recommend *all* to read it. Redeveloping and strengthening follows developing. I treated upon those points in my last. I therefore close this paper here, to be followed by other subjects in future Mincemeat.

I. B. WEBSTER.

## POST-MORTEM PHOTOGRAPHY.

HAVING been an anxious and interested reader of your invaluable journal, the *Philadelphia Photographer*, for several years past, and not having read much on the above subject (except from my friend John L. Gihon), I thought, perhaps, a short article might afford assistance to some photographer of less experience, to whom it might befall the unpleasant duty to take the picture of a corpse.

My mode of procedure is as follows: Where the corpse is at some distance and cannot be conveyed to the glass-room, my first step is to secure proper conveyance, select and carefully prepare a sufficient quantity of plates, pack necessary instruments, implements, chemicals, &c., being careful not to forget any little thing necessary to manipulation. Proceed at once to the cellar or basement of the building, that being more spacious, and generally affording better opportunity of shutting off the light than any other apartment in the house, set up your bath, have your collodion and developer in readiness, your fixer, &c. handy, secure sufficient help to do the lifting and handling, for it is no easy matter to bend a corpse that has been dead twenty-four hours. Place the body on a lounge or

sofa, have the friends dress the head and shoulders as near as in life as possible, then politely request them to leave the room to you and aids, that you may not feel the embarrassment incumbent should they witness some little mishap liable to befall the occasion. If the room be in the northeast or northwest corner of the house, you can almost always have a window at the right and left of a corner. Granting the case to be such, roll the lounge or sofa containing the body as near into the corner as possible, raise it to a sitting position, and bolster firmly, using for a background a drab shawl or some material suited to the position, circumstance, &c. Having posed the model, we will proceed to the lighting, which, with proper care, can be done very nicely. I arrange the curtains so as to use the upper portion of the windows, allowing the light to flow a little stronger, but even and smoother from one side, and just enough from the other to clear up the shadow properly; turning the face slightly into the strongest pencil of light you can produce a fine *shadow effect* if desirable.

Place your camera in front of the body at the foot of the lounge, get your plate ready, and then comes the most important part of the operation (opening the eyes); this you can effect handily by using the handle of a teaspoon; put the lower lids down, they will stay; but the upper lids must be pushed far enough up, so that they will stay open to about the natural width, turn the eyeball around to its proper place, and you have the face nearly as natural as life. Proper retouching will remove the blank expression and stare of the eyes. If the background should not suit you, resort to Bendann's style of printing and make one that will. Such with me has proved a successful experience.

CHARLIE E. ORR.

SANDWICH, ILLINOIS.

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MR. J. C. MUYBRIDGE, San Francisco, Cal., has recently issued a new and magnificent series of Yosemite views, including one hundred 16x20 size, one hundred medium, and seven hundred stereos. The examples sent us are from capital negatives, elegantly printed.

## CONCERNING THE ANNUAL EXHIBITION.

BY GEORGE B. AYRES.

(Continued from page 170.)

V. *Monotony* is a thing characteristic of photographic exhibitions, to avoid which I think greater efforts should be made. It seems to be impressed on everything. It exists in almost every element which make up the picture; in lighting, position, accessories, tone, and finish. The inevitable curtain, the exquisitely wrought chair, vases, statuettes, &c., of refined life are mingled strangely with the wolf and tiger skins of the savage, *ad libitum*, *ad nauseam*.

A.'s No 1 city gallery hits upon a new idea in manner or matter of a picture; B.'s city gallery No. 2 seizes upon it instanter; C.'s country gallery follows next; and so on, applying the new idea without discrimination to every subsequent customer!

Thus, when specimens of *all these* photographs are congregated annually at the Exhibition it becomes really more like a "family gathering" on Thanksgiving day, with the family likeness in common, than what it *should* be, a collection of distinct ideas, differing as the "many men of many minds" do in themselves. Considering that the eye becomes tired, even in a good fine-art gallery where the variety of subject is yet more varied by distinction in subject, color, and handling, it is easy to realize how comparatively interminable the sameness of our photographs must appear to the looker-on who cannot appreciate their distinct and respective qualities and merits.

If it be urged that monotony is *inseparable* from the "business" aspect of our profession, I answer that it is *not necessarily*. True, the man who never thinks or studies *will* make stereotyped work, and always be glad to *copy* from his more ambitious brethren; but if monotony *does* ensue to a certain degree in ordinary business, *that* is no reason why VARIETY shall not be considered *in making up specimens for the Exhibition*.

Has there yet been an exhibition where this painful similarity in photographs has not prevailed? Shall it continue? We have all felt that, one-half of the pictures

being seen, the other half are, to all intents and purposes, just the same! It is really vexatious to witness such painstaking in almost every element *but variety*. It is, indeed, pitiable to find, as we too often do, a contribution so complete and admirable, and then overhear it said, "but *they are all alike!*"

The remedy for this monotony is plain: cleanse our ways, and *do otherwise*. If one's *best* pictures have the same lighting, and all look one way (as twenty-four cartes *did* in one frame at Philadelphia), put in a few reversed, if they are only your second best. In selecting photographs for the Exhibition, remember to do so with a view to how they shall hang or be arranged in your space there. Give the beholder a chance to *escape* strabismus, and remember that pictures well "grouped" assist each other in effect, whilst those selected and hung at random neutralize, perhaps "kill," each other.

If "variety is the spice of life," let us hereafter show ourselves both alive and spicy!

VI. With the exception of large solar pictures there seems to have been hitherto no interest manifested in "plain paper" prints. This has always been to me a strange oversight or singular neglect; and it is no less an unfortunate one, as most of my brethren of the brush will join me in testifying.

I regret to be compelled to admit the fact, based upon my experience in working "for the trade," that not one in ten of photographers in general know how to prepare a "plain" print for the artist; the consequence of which is that not one in ten of the "worked up" pictures *are* what they *should* be.

Nowadays, when a gallery can scarcely be found, even in the remote districts, that does not advertise "Pictures copied and enlarged, and finished in India ink, water colors, or oil!" it is lamentable to contemplate the time and labor wasted upon excessive retouching and other follies, some portion of which *might* be put to *far better use* in learning how to make (shall I say even *decent?*) "plain" prints.

No more on this topic now, as I propose to resume it at another time; but I close with the *hope* that, in making up the *variety* of photographs to be looked for at Buffalo, we shall see large contributions of plain paper prints. *Who* will show the *best?*

VII. Finally, concerning the annual meeting itself, and the purpose and expectations of our brethren in attending it.

I think, in the first place, photographers should go to the *Convention* rather than to the Exhibition; go to learn rather than to see; to inquire and be inquired of rather than to gratify the eye, or take notes with the mere intention of *copying* what they see.

Further, has it not *seemed* in the past as if the National Photographic Association labored solely to get up a "picture show," in order to entertain the local public at twenty-five cents per head? If that same public were out of town, or "could not see it," and did not respond, it was *said* that the Exhibition *did not pay!* If the expenses for hall, music, labor, printing, &c., were not liquidated by the door receipts it was considered *a failure!* But was that *true?*

I think not—they *did* pay!—perhaps not in dollars, but in the spread of knowledge, and in the advance and elevation of our profession. The status of American photography in 1872 at St. Louis as compared with 1869 at Boston prove it.

But the fundamental error committed in the past has been the *apparent* effort of the National Photographic Association to provide something—a picture show!—for the entertainment of the public *instead of for the edification and improvement of its members!* For this reason many are discouraged from contributing because their work is not of the superb class, and many pictures containing points for investigation and discussion are left at home because they are not altogether complete. This is unfortunate.

My humble opinion is that the *public* should be quite a secondary party; and if all that is *beautiful*, is to be paraded for its gratification, then let an equal amount of space be devoted to the *useful*, the technical and instructive; and let members understand that prints of their *failures* will be as welcome as prints of their *successes*.

Why should not our gathering (to a certain extent) resemble that of a medical as-

sociation, whither can be brought our "cases" for inspection and decision. Does the medical student learn most in the hospital, or in the gymnasium? Do not our chemicals get sorely diseased, and do not too many negatives and prints show that the doctor is badly wanted? There *are* physicians, and balm *is* abundant in our Gilead, but they that are sick *must* be *brought in*. "Room for the leper!"

As compared with the pleasure of interchanging thought, increasing fraternal love and acquaintance, and the instruction to be derived from the *Convention*, to my mind the Exhibition should be regarded as only a side-show! In the former we seek for principles and a foundation of good works that we expect to carry home, practice, feed upon, and live; in the latter we see results, which do us little good beyond a temporary gratification if we lack the ambition to overtake them, and we leave them hanging on the walls.

## Clemons's Advice to Printers.

In going into a gallery to take charge of the printing, the first thing I would do would be to see that the silver was all right, *i. e.*, if any organic matter was present that was detrimental to making fine work, such as albuminate of silver, &c.; and to test for any I would place one tablespoonful of the solution in a saucer, and with it one teaspoonful of 95 p. c. alcohol, and then flame it with a match. Let it burn until it expires of its own accord. This must be done where there is no draft of air which can affect it. If there is any foreign substance present it will oxidize by heat and fall to the bottom, and at the same time the silver will test acid,* although it was strongly alkaline before it was burned. Do not add anything whatever to make it alkaline. I am writing now as if it had been found so by test; and then do the whole bath so, by burning with alcohol. But when you do a full bath you should evaporate it away about two-thirds; it saves alcohol. This should be done about once a week if the bath is used constantly, for by so doing you will keep up the appearance of your work, and it will have a much better tone and surface than if neglected. The next thing I would look at would be the *run* of negatives, to see if they were strong or weak in their make. If made too strong I should use my silver much weaker than if the negatives were made weak, and that will vary from 30 to 50 grains. And, this will vary according to hot or cold weather. This you would do well to make a study of, and you will find it will repay you tenfold by doing so.

John R. Clemons.

N.B. It would be to the advantage of all proprietors of photographic establishments who read the above, to allow their printers to attend the Buffalo Convention in July next. There they will learn something which will be of advantage to themselves and the establishment which they represent, for years to come.

* If you flame alcohol and water that has been mixed together, though both neutral to test paper, the mixture will test acid, after being burnt, the flame having taken the oxygen from the air while burning.

## THE PHOTOGRAPHER TO HIS PATRONS.

We feel warranted in again calling attention to our little leaflet, *The Photographer to His Patrons*, by the continued good-will which it seems to meet from those who use it. It is the very best means of advertising your business, and at the same time it carries a great deal of information to your patrons, which it now takes much of your time to give over and over again day after day.

It has been demanded in English, German, and Spanish—*two kinds of Spanish, in fact*—one for the West Indies, and one for the South American trade, and over 501,000 have been printed.

An ingenious photographer has discovered a way by which he can have all the advantages we speak of without much cost to himself. He secures the advertisements of his neighbors for the cover pages, gets a good price for them, and the balance he has to pay for his leaflets is quite small. Now

we give to those who order the leaflet of us the privilege of placing anything they choose upon the four pages of the cover, we care not *what* it is or *whose* it is. If *our* patrons can get advertisements to help pay for what they order, we are perfectly willing and glad to have them do so, and make the suggestion to those who think they cannot afford to go it alone.

Mr. E. T. Whitney, Norwalk, Conn., a veteran photographer, uses them, and writes, "I cannot say how much I am pleased with the little books. They do good service, and I wish I had thousands of them."

The *fact* is, you cannot afford to do without *The Photographer to His Patrons.*

## APPRENTICESHIP.

A WESTERN correspondent sends us the following:

"I would like to inquire if the subject of apprenticeship is likely to be settled by the National Photographic Association, as regards terms of taking apprentices to learn the business. I have at present a persistent applicant, who wishes me to take him to learn, but I have told him I did not wish to take another apprentice until the National Photographic Association had decided the question of rates, &c., or established a regular school.

"I never have taken but one apprentice (whom I now employ) at four months' time, without charging any fee for instruction, but the fact is photographers have been in the habit of turning out apprentices, after a few weeks' or months' learning, to prey on the public, not being thoroughly learned, nor having that sound basis from which to grow into first-class photographers. The consequence has been, that because those same apprentices could not turn out strictly first-class work, at first-class prices, they would go into the cheap picture business, and thus cause great damage to the art. I feel that in this photographers have been to blame; it looks to me like cutting off our own heads.

"I am aware that all who undertake to learn do not turn their attention to the cheap picture business, and depreciate our art. There are a great many who are climbing to the top of the ladder, and while I would not wish to keep a single one out of our profession who might prove an honor to it, at the same time I think we ought to have some standard as regards terms of taking apprentices, and not turn out new-fledged photographers of a few weeks' apprenticeship, to operate against the good of the fraternity.

"Please let me have your opinion, Mr. Wilson, as to what terms I ought to give if I take this man. I do not wish to take him, but if he is to learn the business I would like to see him do so as thoroughly as possible. Please write me a line if it is not asking too much."

This is a subject which we think ought to have some *positive* attention at the Convention in July. It is not a *new* topic. The "*fathers*" of the National Photographic Association had it in mind when they wrote the constitution, and a committee was appointed in Cleveland to consider the matter and report upon some definite plan to regulate a system of apprenticeship. The committee have done what they could, but the Association have always dodged the issue, being, apparently, not yet ready to take it up. We think now the time has come to *act* in the matter. Our Association is over a thousand strong, and Buffalo will make it one-third stronger. All are aware of the scarcity of good help, and almost all are painfully aware of the evils caused by unfledged photographers who cut down prices and degrade the art. It is in your power, gentlemen of the National Photographic Association, to correct these evils. Awake out of sleep and do it.

We hope the committee having the matter in charge will report *actively* on the subject, and recommend a plan that is feasible and business-like. Pending that report we would say a word or two to employers.

First. We *would*, by all means, take apprentices. The need for good photographers is great, and the only way to get them is to *make* them.

Second. The main condition should be *as to time.* Compel the apprentice to serve for a good, reasonable *time*—not weeks but

years—before you allow him to scatter his work to the world.

If he will not submit to that, do not teach him.

Third. The matter of compensation to one party or another is a minor consideration. The thing does not hang on that at all. No rule can be established to regulate it. It is a matter of business between you, but make an apprentice serve out the established *time*, and the result we all desire, *i. e.*, good photographers—will surely follow, no matter how much or how little money passes meanwhile from one to the other.

Let us develop no longer, but *fix* the thing at Buffalo.

## A FEW SUGGESTIONS.

BY B. F. HALL.

I WISH to make the following suggestions "to whom it may concern," which, if carried out, will substantially aid all practical photographers.

*First.* We want a contrivance that will cut ferrotype plates, cardboards, &c., into any desired size. An arrangement something similar to those used in printing offices for cutting leads or cardboards, only a combination of the two. At present, photographers who buy their plates 10 x 14 size, by the box, which is decidedly the cheaper way, are compelled to mark each plate to the size required, and cut with the shears, which is tedious and inconvenient, to say nothing of the danger of soiling by finger-marks, which is difficult to avoid.

A machine of the right kind could be made at a trifling cost, which could be gauged to cut any size perfectly true, clean, and expeditiously.

*Secondly.* Why do not manufacturers of chemicals grind or pulverize their sulphate of iron before doing it up for sale, instead of sending it out in large quartz-like crystals that are hard to pulverize at best, and require, not only a large outlay of muscular strength, but the expense of a mortar and pestle, and any quantity of time and patience? I *know* it will keep just as well, if properly bottled, for I have tried it. Five months ago I pulverized a quantity, weighed it carefully, and bottled it, sealing the cork with wax. To-day it is as bright and fresh as ever, and has not lost a grain in weight. Pulverized iron for developer would be a great convenience, saving of labor, and would sell at a premium.

*Thirdly.* Why does not some enterprising individual in one of our larger and more central cities open a "Photographic Exchange" for the convenience of all parties wishing to exchange second-hand apparatus?

Is there a photographer in the land that has not some good lenses, camera boxes, and stands, bath-holders, &c., or a scenic background of which he is weary, that are useless to him, but desirable to some one else? I believe not. Is there one who would not be willing to pay a reasonable commission to a competent party to effect an exchange of some of these for something he DOES want? I believe not. You may suggest that, to such, your advertising columns afford an easy and cheap method of communication, but I beg to assert that such a house, established by a responsible party, could solicit and would obtain consignments of thousands of dollars' worth of apparatus, which the owners would never advertise, and which would, in consequence, remain in the rubbish-room, dead stock.

## ON COLLODION.*

BY L. M. MELANDER.

IN bringing the subject I have chosen before you, this evening, I feel that I am entering upon a well-trodden path. I am, however, convinced that it is a subject so intricate in its nature, that however well and carefully studied, you may find some little gem of truth unearthed by the experience of another. I desire your attention for a short time to the subject of this paper.

### COLLODION.

I will not attempt to trace the many and varied modifications since it was first suggested by M. Le Gray, of Paris, but will confine myself to collodion as we find it to-day, and endeavor to show how we can com-

* Read at the April session of the Chicago Photographic Association.

pound collodion understandingly, adapted to our various wants in photography. We find so many recipes in publications, and otherwise, that it would seem easy to select and adapt, but I have found that it requires the greatest nicety of judgment. "Brains" seems to be a pet phrase with many writers on photography, and it certainly requires brains. I do not suppose that any one entertains the delusion that one sample of collodion will answer for every variety of subject. This would be simply folly, and you would thereby underrate the means at your command, placing photography among the most ordinary mechanisms of the day; when, by properly comprehending and adapting those means, you might place your works among the arts of the land.

Let us glance at a few types of subjects in portraiture, that day by day present themselves at our studios, that we may appreciate the importance of grappling with the requirements.

You find the man of business, the "girl of the period," the fop, the sturdy farmer, the delicate child in its mother's arms, and then you have *copies* to bother and perplex you, solar negatives to worry and vex you, transparencies often to tax you, but smile and endeavor to please. These, with a score of others, constitute the variety. You spring to your collodion vials, there to meditate and scratch your head (and if you happen to be the president of a photographic association you will find it necessary to carefully and properly adjust your eye-glasses upon your nose), but your customer must not wait. It is not only your duty, but an absolute requirement that you exert yourself to the utmost of your ability to do justice to all these different subjects, for in proportion as you succeed or fail in this will depend your future reputation as an operator.

We will first consider the different compounds commonly used; what they are, &c. Alcohol, ether, and gun-cotton are the ingredients of plain collodion. We find that we cannot get absolute alcohol, but as far as *my* experience goes, Atwood's alcohol answers very well. The alcohol commonly found contains at least ten per cent. of water, and in this state it is not pure enough for a good quality of collodion. Collodion made from such alcohol would have a tendency to render your film bluish, transparent, lacking the vigor and peculiar bloom so valuable in a negative with good printing quality. Should you doubt the purity of your alcohol, you can easily test it, by simply setting fire to a small quantity of it; the alcohol will burn and the water remain. To correct and purify it, add to every quart of alcohol two or three ounces unslacked lime, broken into pieces; let it remain for a few days, occasionally shaking the first two days, then let it stand until perfectly settled clear; decant carefully, and the alcohol will be ready for use. The affinity the lime has for the water will cause it to take up all the water in the alcohol and leave it pure.

### Concentrated Sulphuric Ether.

The ether we can buy of any reliable stock-house. It dissolves but few of the ingredients of collodion, and then only sparingly. It is, therefore, necessary to dissolve your different salts in the alcohol before adding the ether. It becomes acid by contact with air. It should be neutral to test-paper; hence, at all times keep it well corked.

### Gun-cotton.

We find so much difficulty in procuring good, reliable cotton in market that every good operator has become accustomed to eye every box with due suspicion, and not without good reason, for the cotton we bought one month ago may be far better or worse than the cotton bought to-day, both bearing the same maker's name.

We have the Helion cotton; generally, a long fibre cotton, very good where a tough, strong film is desired. It should only be used for collodion where great contrast is sought, as in collodion for copying, &c. The Anthony cotton, Nos. 1, 2, and 3, a very reliable cotton, gives us a very good film, but does not generally give the delicacy to collodion that some others do, though very good for general use. Then we have the Hance's and Parys' cottons; both very fine and well adapted for a delicate film; excellent in collodion suitable for *so-called* Rembrandt photographs. There are

many other cottons in market, but those already mentioned are the only ones I am practically familiar with. I have used the papyroxylin, but never advantageously. Any one at all acquainted with the process of manufacturing gun-cotton will not be surprised at the difficulty makers experience in giving us, at all times, the article we so much depend on of a uniform quality. I will not attempt to explain the process—will simply say that a good quality of cotton (previously boiled in a solution of carbonate of soda) is immersed in a mixture of nitrate of potash and oil of vitriol heated to 150° Fahrenheit, after which it is thoroughly washed in running water, then immersed in water containing a small quantity of liquor ammonia, to neutralize the acid and dry spontaneously. I would not advise any one not acquainted with the process to attempt the experiment of making gun-cotton, as it is attended with much difficulty and might disarrange things if by accident it should come in contact with the flame of your heating apparatus. Should you chance to get a sample of cotton that has become acid by coming in contact with the fumes of some acid, you can correct it by thoroughly rinsing it in pure water; in the last water add a few drops of liquor ammonia; spread it on a clean piece of glass, to dry spontaneously, in a room where no fumes of chemicals can reach it.

The alcohol, ether, and gun-cotton are commonly used in compounding our plain collodion, in proportion varying according to the temperature, the quality, and nature of your excitants, the state of your silver solution, but generally in proportion of equal quantity of ether and alcohol, and from four (4) to seven (7) grains of cotton to the ounce of collodion. In summer ether evaporates quicker than in winter, you would therefore use more ether, or occasionally add ether to the collodion as it evaporates while in use. I would advise having a sample of thin collodion on hand, to thin with, as by evaporation it becomes too thick; for you must bear in mind that every plate you flow changes the nature of the collodion in proportion as the ether escapes faster than the alcohol, as well as in proportion as they both escape, leaving a strong iodized and bromized collodion. The cadmium salts also have a tendency to thicken and glutenize collodion when those excitants are used. It will be necessary to make due allowance for this peculiarity of these salts, and thin your collodion occasionally. I have also observed that collodion having alcohol in excess of ether will work better with a new silver solution than with a bath contaminated with alcohol and ether by long use.

We will now glance at the different compounds used as excitants. The salts commonly used are the iodide and bromide of cadmium, the iodide and bromide of ammonium, the iodide and bromide of potassium, the iodide of lithium. We also find the iodide of sodium, the iodide and bromide of magnesium, and the bromide of arsenic, but with these latter salts I have never been able to compound collodion in any respect better than the cadmium, ammonium, potassium, and lithium excitants. In selecting your excitants great care must be exercised, as many fall into error by not thoroughly comprehending the nature of the ingredients, as I will endeavor to show. You may use three (3) grains of iodide of ammonium in *one* sample of collodion and three (3) grains of iodide of cadmium in *another* sample. It does not therefore follow that you use the same quantity of iodine in both, as the combinations of iodine and bromine differ in their proportion with the base of the salts. This is not only true with the compounds, but the elementary substances differ materially in their atomic value; it will therefore become necessary to acquaint ourselves with those substances, not only in the light of the chemical equivalents, but also in the light of the difference of weight of atoms.

The atomic theory furnishes us with a systematic method by which we can readily comprehend the rarity or density of atoms of the principal elements commonly used in the compounds of our salts. We know that all substances are composed of atoms so minute that perhaps no one can possibly comprehend them, and still it has been proven that those atoms are distinct and individual, held together by natural laws, but differing in their proportion and chemical combina-

tion. Hydrogen gas being the lightest substance known, is marked one in the scale, and all the other elementary substances are comprehended by this. Thus we find iodine marked 126, bromine 78, cadmium 55, lithium 6, potassium 39, magnesium 12, &c. We are taught by this theory the value of these substances in the light of their chemical combination, and the first step is to note their difference, if we would compound collodion understandingly, for in proportion as they differ in this respect will our compound salts differ; but as we do not use these chemicals in their elementary state, but in combination—not iodine, but iodide; not bromine, but bromide of ammonium, &c.—it also becomes necessary to find in what proportion they are combined, or their equivalent value; for instance, iodide of ammonium is combined in proportion of one part iodine to four parts ammonium; iodide of cadmium, one part iodine to one of cadmium; iodide of potassium, one part of iodine to one part potassium; iodide of lithium, equal parts, &c. You will readily comprehend that you may vary the iodide and bromide very materially, if you allow that each salt contains the same amount of iodine or bromine in a given quantity by weight. If you should compound one sample of collodion, using a given quantity by weight of your sensitizing salts, and another sample using three times the quantity, they may both contain the same amount of iodide or bromide.

Iodides and bromides are the required substances to form the bromo-iodide of silver in your silver solution; this forms the latent image; the ammonium, cadmium, &c., merely hold these in suspense or combination. I do not think the bases of the salts are essential only, as they liberate the iodide and bromide; true, they impart certain qualities to collodion, peculiar to themselves, as, for instance, the iodide and bromide of potassium, the potassium has very great affinity for oxygen. Water, being composed of oxygen and hydrogen, it attracts the oxygen and liberates the hydrogen, thereby freeing the collodion of water. This gives to potassium great claim, and I believe this theory explains the fact, that potassium collodion (if properly compounded) will give better printing quality to a negative than any other collodion.

The iodide and bromide of ammonium contain a greater quantity of iodine than any other of the excitant salts, and being of a very deliquescent nature liberate more iodine in the same space of time; hence the fact that ammonium collodion can be used sooner after being compounded, and will work hard and harsh in a short time. This is due to the excess of free iodine liberated, naturally enough, when we consider that it contains four times as much iodine as the same weight of iodide of cadmium. We find three kinds of iodide and bromide of ammonium in market: the white, the pale yellow, and the brown. I prefer the brown, when it can be obtained, but it is a French chemical, and as we do not always find it in this market, I have made the yellow answer, but have found it necessary to add tincture of iodine to the collodion when the white or the yellow iodide of ammonium has been used.

### Iodide and Bromide of Cadmium.

Cadmium has a tendency to glutenize collodion when used in excess. It has greater "keeping" qualities than collodion made with any of the other excitants, and samples of collodion made with iodide and bromide of cadmium have been kept even for years, and have improved the older they became. Cadmium liberates free iodide very slowly, partly from the fact that the atoms of cadmium are closely knit together, having an atomic weight of 186, and partly from the affinity cadmium has for iodine and bromine combining firmly with both of these substances.

### Iodide of Lithium

Combines with cadmium in collodion very nicely. Cadmium having an atomic weight of 186, and lithium only 6. You will see that if combined it would give an atomic value less than ammonium. The lithium contracts the atomic firmness of the cadmium. To illustrate the difference with which you may introduce iodide or bromide into your collodion, by using equal quantity by weight, of different salts, let us compound two samples of collodion.

No. 1.

| | | |
|---|---|---|
| Iodide of Ammonium, | 3 grs. | to the oz. |
| " " Cadmium, | 1 gr. | " " |
| Bromide of Ammonium, | 3 grs. | " " |

No. 2.

| | | |
|---|---|---|
| Iodide of Cadmium, | 3 grs. | to the oz. |
| " " Ammonium, | 1 gr. | " " |
| Bromide of Cadmium, | 2 grs. | " " |
| " " Potassium, | 1 gr. | " " |

Each of these samples contains 7 grains of excitants, but if we compare the equivalents we find that No. 1 contains 25 parts of iodine and bromine, to 7 parts of cadmium and ammonium; while No. 2 contains only 10 parts of iodine and bromine to 7 parts of cadmium, ammonium, and potassium. The iodine and bromine vary in proportion of 25 to 10.

The collodion I am now using is as follows: I have four (4) samples on hand at all times, which we will designate as Nos. 1, 2, 3, and 4.

FORMULA No. 1.

Alcohol and Ether, equal parts.

| | | |
|---|---|---|
| Iodide of Ammonium, | 2 grs. | to the oz. |
| " " Cadmium, | 2 " | " " |
| Bromide of Ammonium, | 3 " | " " |
| Parys's Gun-Cotton, | 4½ " | " " |

FORMULA No. 2.

| | |
|---|---|
| No. 1, | 1 part. |
| " 3, | 2 parts. |
| " 4, | 1 part. |

FORMULA No. 3.

Alcohol and Ether, equal parts.

| | | |
|---|---|---|
| Iodide of Lithium, | 2½ grs. | to the oz. |
| " " Cadmium, | 1½ " | " " |
| " " Ammonium, | 1 gr. | " " |
| Bromide of " | 1½ grs. | " " |
| " " Cadmium, | 1½ " | " " |
| Parys's or Hance's Cotton, | 5½ " | " " |

FORMULA No. 4.

Alcohol and Ether, equal parts.

| | | |
|---|---|---|
| Iodide of Potassium, | 3 grs. | to the oz. |
| " " Cadmium, | 2 " | " " |
| Bromide of Potassium, | 2 " | " " |
| Anthony's or Helion Cotton, | 6 " | " " |

In addition to these I keep a small quantity of tincture of iodine to use as occasion requires, when collodion is too new or when the white ammonium has been used.

With these samples of collodion in good condition, well filtered and settled, you will be prepared to adapt to almost every variety of subject in portraiture that may present itself in the ordinary routine of work, as your practical experience may dictate. I would advise not to blunder into experiments, but fully acquaint yourself with the nature of the ingredients you use in making collodion.

You must not, however, be surprised at failures; you may often be disappointed in the very formulæ you have placed the utmost reliance on. I have never been able to make one sample of collodion that would work alike at all times, as the atmosphere, the light, and, above all, the *silver solution*, are constantly changing. You will find it necessary, therefore, to keep the most diligent watch. As for exhilarators I have never found the least advantage in them—always destroying better qualities in collodion. This fact may arise from an improper *use* of them, but I have discarded them entirely.

## MATTERS OF THE

THE next annual Convention and Exhibition of the National Photographic Association will be held in Buffalo, N. Y., beginning Tuesday, July 15th, 1873. Mr. W. J. Baker, Local Secretary. A full list of routes, &c., will be ready in a few days. If not sent to you, write to the Permanent Secretary for a copy.

THE Permanent Secretary invites papers from *all* who choose to offer them, and requests that they be handed in to him before the opening of the Convention, that place may be made for them in the order of business.

THE SCOVILL AND HOLMES MEDALS.—Competitors are notified that their applications and matters concerning the same must be in the hands of the Permanent Secretary

by June 25th, to insure the consideration of the committee. Do not forget this.

Life Insurance.—Read Mrs. Lockwood's paper on this subject on page 194.

Mr. Frank Jewell, Scranton, Pa., says: "I shall shut up shop during the National Photographic Association Convention, and will be at Buffalo *with all hands.*" If all would do this photography would fairly *hum* during 1873–4.

To become a member of the National Photographic Association costs $4; $2 for entrance fee; $2 for one year's dues, in advance; employés, half rates; life membership, $25. Apply to Edward L. Wilson, Permanent Secretary, Philadelphia.

Life Members.—Mr. J. P. Buchtel, Portland, Oregon, is added to the list.

Veterans.—Mr. Alfred Hall, Chicago (1848), is added to the veteran list.

What a Texas Man thinks.—You doubtless recollect the long road I had to travel last year to reach the N. P. A. at St. Louis; but I made it, and home again, all safe; and, sir, I was so highly pleased, as well as benefited thereby, that I fully intend, Providence permitting, to be at Buffalo in July next. In a little less than three days and three nights after waving adieu to the verdant plains of our romantic State, I will find myself landed in the streets of Buffalo, N. Y. Surely our favorite occupation is commanding that respect and that admiration from the highest and most refined circles of society, that it should induce us to leave no stone unturned, no exertions withheld, and no duty unperformed, that should be calculated to insure success. And then the hearty, cordial greeting from the whole fraternity. Oh! that July were but to-morrow. E. Finch.

Waxahachie, Texas.

Our Empty Treasury.—The treasury of the N. P. A. is about empty, and some bills remain unpaid. A thousand dollars or more are due by the members. Will you not remit your dues now, to enable the Executive Committee to arrange the Exhibition matters satisfactorily? Loyal members, attend to this. Mr. Albert Moore, Treasurer, No 828 Wood Street, Philadelphia.

Look for the *blue badges* and stained fingers when you reach Buffalo. See page 215.

We regret to learn that Mr. J. W. Husher, Terre Haute, Ind., an active member of the N. P. A., lost his wife June 4th.

Mr. P. E. Thuemmler, Milwaukee, Wis., regrets his inability to "move" the railroads, as he expressed a hope that he could do in our last, but volunteers to secure round trip tickets from Milwaukee to Buffalo for $20.66.

## THE EXHIBITION.

### REGULATIONS AND ARRANGEMENTS.

The Fifth Annual Exhibition of the National Photographic Association of the United States will be held in the Rink at Buffalo, N. Y., beginning Tuesday, July 15th, 1873.

The meetings of the Association will be held in the Hall near the Rink, morning, afternoon, and evening.

Badges will be supplied to the members, dues received, and new members admitted, at the office of the Treasurer in the Rink and Hall. For latest information apply there.

The *business* meetings of the Association and Exhibition will be free to members presenting their badges, and to their wives.

No admission to the *business* sessions for those not members.

Those not members will be admitted to the *scientific* sessions on payment of fifty cents each admission.

The business sessions will usually be held in the forenoon, and the discussions, lectures, &c., in the afternoon and evening. A grand programme is under way for the latter, and matters of great interest will come up at the former.

A cordial invitation is given to *all* photographers, abroad and at home, whether members of the Association or not, to exhibit of their work, and space will be provided *free of charge.*

Manufacturers, dealers, &c., are charged $10 fee to help defray the expenses, unless the Executive Committee reduce the rates to applicants in special cases.

Arrangements with express and railway companies are being made for a commuta-

tion of fares and freights and the result will be announced in a circular, to be issued in a few days; likewise, the list of hotels and their rates.

A copy will be sent to all photographers who can be reached. Those who do not get it, may have copies by applying to either the Permanent or Local Secretary.

### DIRECTIONS TO EXHIBITORS.

1. It is necessary to put in a large amount of extra gasfitting at the Rink to render the evening illumination perfect. Will not exhibitors AT ONCE send me their estimates of the space they want, in order that the light can be centralized as much as possible, and thus economized and made more effective. Please read the general instructions to exhibitors given elsewhere, and favor us with an immediate response.

2. Inquire of your express agent the time required to forward a box from your place to Buffalo, N. Y., and send so that it will arrive here not before the 12th of July next, nor after the 15th.

3. At the time of despatching your box, mail a descriptive invoice of the same to the Local Secretary, and place a duplicate of the invoice in the box itself.

4. (*Very important.*) PREPAY ALL CHARGES.

5. Screw each frame on to two cleats, and also fasten the cleats to the sides of the box with SCREWS.

6. Fasten the lid with screws; use no nails for this purpose.

7. Put your name on the back of each frame, or place your card under the glass in front.

8. Put your name on the bottom of the box inside.

9. Direct the box to W. J. Baker, Local Secretary N. P. A., Rink, Buffalo, N. Y., and on the inside of the lid put your own name and address.

10. You can easily see how mistakes and much confusion will be avoided by strict adherence to these instructions in every case.

W. J. BAKER,
Local Secretary, Buffalo, N. Y.

EDWARD L. WILSON,
Permanent Secretary, Philada.

## SOCIETY GOSSIP.

(For time of meeting of American Societies, see "Society Calendar" in "Specialties.")

NOTE —We are glad to see the number of photographic societies growing, and will thank the Secretaries of *all* of them to send us a *full* record of the proceedings at each meeting *promptly*. With our present crowded pages we can hardly agree to print *all* they send, but will make such extracts as are most useful to our readers under the head of "Society Gossip." We hope this will be satisfactory, and that the societies will rival each other generally in their efforts to be the most useful. Will the Secretaries please give us their reports written *on one side of the sheet only?*

MARYLAND (Baltimore), May 1st.—The chairman of the Committee on Literature (Mr. Busey) reported that the committee had concluded it advisable to secure for the Association only the *British Journal of Photography* and the *Photographie News*, both published in London, England; and recommended that the members of the Association should encourage the American publications pertaining to our art by subscribing to them.

The proposed amendment to the constitution, "That no legislation of any character, whereby any member will in any way be interfered with in the conduct of his business, shall be passed by the Association, without the consent of *three-fourths* of the members of the Association," was postponed until the next meeting night. During a brief recess the negatives and prints, both unretouched, were examined, and their merits discussed.

This method of exhibiting pictures for friendly criticism and study is a capital one.

DISTRICT OF COLUMBIA (Washington), May 6th —Mr. A. M. Hall, of Alexandria, Va., was elected a member.

Mr. Ward exhibited a transferred negative, explaining the *modus operandi* of its production, and its advantages in many respects over the ordinary negative. Mr. Gardner said they could be retouched by first coating with a thin solution of gelatin.

Considerable time was spent over the subject of the National Photographic Conventions, and the benefits arising therefrom,

both to photographers and the public, were discussed.

A number expressed themselves as intending to be present at the Convention in July.

Several being present who were not at the last meeting, the Luckhardt pictures were again examined, criticized, and admired. Mr. Thorp exhibited a few pictures to illustrate the correct principle of lighting faces.

Philadelphia (Philadelphia) May 7th.—The President said that since the last meeting he had learned that in the varnish used for the fluorescent drawings, which were then shown, there were *two* distinct substances, petrolene and thallene, each giving fluorescent effects peculiar to themselves.

Mr. William H. Smith, Jr., was elected to membership.

Mr. Bell gave an interesting account of his photographic experiences in the deep cañons near the Colorado River. The difficulty of obtaining good water was very great, and he had often resorted to dry plates. Many successful negatives were made on plates, preserved with a mixture of two ounces of albumen to a quart of ale; and in some cases the development was deferred until twenty days after exposure.

Conversation then ensued upon dry processes in general; after which Mr. John Moran exhibited a very fine series of views on the Wissahickon, and in the neighborhood of Philadelphia. Mr. Moran remarked that photography was a more plastic art than was generally supposed, and that by judicious touching or etching out of the negative much could be accomplished.

Several prints were shown where branches of trees had been scratched into the film, thus very materially aiding the composition. A print from a negative of the Old Swedes Church at Wilmington, Delaware, was shown, which had had twelve large white tombstones removed from the film, and bushes, &c., substituted. Mr. Moran also spoke of the fine effects to be secured towards sunset when the light is weak, and the imposing effects of masses of shadow with but little detail, which are obtainable at that hour of the day.

June 7th. Regular monthly meeting, at which Messrs. Henry M. Pettitt and Alexander Helmsley were elected members. Dry processes were discussed generally, and the Society adjourned to October.

Photographic Institution (Chicago), April 23d.—This is a new association, sprung from the older society in Chicago; many holding membership in each. The new one includes the study of drawing, the dues being fixed to cover instructions in that important and invaluable art, useful to all photographers. At the adjourned meeting of above date a constitution and by-laws were offered and discussed, and other preliminary work done.

On May 12th another meeting was held, the President, A. Hesler, Esq., presiding. Mr. Brand addressed the meeting on the duty of the members of a society to each other.

The subject of arranging a room with suitable adjustments for making large groups of societies, &c., was introduced by Mr. Brand, who stated that he contemplated building such a room on a vacant lot adjoining his studio. Mr. Hesler spoke on the subject, giving his ideas how such a room should be built. He said he would build a building, open at one end, where he could arrange a very large circular background with rocks and rustic work. He would so arrange the walls that he could change the light to any point he wished to, &c.

Some remarks on ground-glass, lights for summer uses, &c., were made. Mr. Green and Mr. Hesler volunteered to read papers at the next meeting; Mr. Green on the subject of Relief, and Mr. Hesler on Lighting and Posing. After which the meeting adjourned, to meet the first Monday evening in June, unless previously called.

Chicago (Chicago), May 7th.—After the opening, &c., President Hesler made an address on the subject of Lighting and Posing having lost a paper he had prepared on the subject. Among other excellent things he said:

"Try and cultivate the faculty of reading your sitters the moment they enter your studio, and having noted the 'points' you think necessary to make a natural picture,

go on quietly as 'master of the situation,' and produce that 'speaking likeness' that will please the subjects, and yourself.

"In lighting our subjects we have been using too much light, but I think it is giving way to a more reasonable and satisfactory mode and with great results."

Mr. Hesler further said: "A word regarding the results of some experiments I made some months ago, and of which you saw the product in a few examples of cabinet photographs I placed before you at a meeting some two months since. I told you then the time in making the sittings was reduced more than one-half. I now state the means of producing the results, that you may further investigate the subject, and if of any value to note the same for the benefit and use of the fraternity; I find that if a bath, made 25 to 30 grains strong, is kept at a temperature of 100° with a developer at same temperature, the time of exposure is reduced as stated. Temperature of my dark-room averages 65° to 70°.

"My developer is simple, and made as follows: A saturated solution of sulphate of iron and water, kept in a quart bottle for stock. For use take a one pound wide-mouth bottle—I use a cyanide bottle—put in say one-half inch of the stock solution of iron, fill up with water nearly full, add two ounces acetic acid, No. 8, shake, and use. I find that a developer, used at a temperature of 100°, gives a very fine deposit."

Mr. P. B. Green followed with a useful paper on Collodion, which we hope to publish shortly. A lively discussion followed of that kind which is sure to do good; when good operators fight for their own pet formula it is always interesting.

T. E. Wood, L. Luplan, J. O. Oleson, and Wm. Page, Chicago, and C. H. Pease, Goshen, Ind., were duly elected members.

Mr. Manville, of Marshalltown, Iowa, gave the Society a few examples of his work, which were favorably noticed.

Committees on Transportation for N. P. A., and the Photographic Department of the Interstate Exposition reported progress.

Mr. Hesler stated that he had corresponded with Mr. Everett, agent for the Edwards Process, and had secured a reduction in price for a club of ten. The merits of the process were then discussed, and all agreed as to its great value.

INDIANA (Indianapolis), May 7th.—This Association elects its officers twice a year, and this was the semi-annual meeting. After the usual routine, a paper by Mr. Ingraham and the fixing of the 21st of May for a special meeting for a discussion on collodion, the election was held, with the following result:

*President*, J. Perry Elliott;
*Vice-President*, C. B. Ingraham;
*Corresponding Secretary*, W. R. Householder;
*Recording Secretary*, D O. Adams;
*Treasurer*, Henderson George;
*Editor*, D. B. Claflin;
*Librarian*, Harry Fowler.

After the transaction of further local business, the Association adjourned.

BROOKLYN (Brooklyn, N. Y.), May 13th—Four new members were added to the roll, and one other proposed. The session was mainly occupied by the exhibition of pictures — enlargements by Messrs. Williamson and Troxell, and pictures by the Edwards Process by Mr. Alva Pearsall. Mr. F E. Pearsall exhibited a 14 x 17 transparency of his skylight, which was pronounced exceedingly fine.

A 14 x 17 plain photograph, large head, exhibited by Mr. Knowlton as being made with an extra 4-4 Peerless lens, was remarkable for its sharpness and detail.

Mr. Borker showed some photographic views of an azure blue tint (or tone), which looked very sketchy, and decidedly non-photographic.

June 9th. The following important resolutions were introduced by Mr. Alva Pearsall, and seconded by Mr. Charles Williamson, who also added an amendment, which were then put to a vote and adopted by the Association.

*Resolved*, That photographic portraiture being now recognized as one of the fine arts, it is entitled to a higher consideration than to be classed with mechanical inventions and productions by the awarding of diplomas.

*Resolved*, That photographic portraiture being an individual effort, and as such par-

taking of the artistic feeling and talent of each photographic artist, it may be represented in many different styles but of equal artistic merit, the same as many other works of art, making it quite impossible for judges to pass upon the same and do equal justice.

*Resolved*, That we, as members of the Brooklyn Photographic Art Association, do appoint a committee of three to wait upon the managers of the Kings County Industrial Institute, with a copy of these resolutions, to request that in future no awards or diplomas be issued for photographic portraiture or photography, and to make a report of same at our next meeting. And we pledge ourselves individually to make as good a representation of the photographic art, as we otherwise would if we were competing for prizes or diplomas.

AMENDMENT.

*Resolved*, That all associations desirous of our beautiful display of photography, be recommended to allot space and room equally attractive, well-lighted and furnished as that for oil paintings, free of cost, giving to each exhibitor a season ticket of admission.

PENNSYLVANIA (Philadelphia), May 19th.—The resolution passed at the last meeting, that the minutes be approved before publication, was reconsidered and lost.

Mr. F. L. Stuber, Bethlehem, Pa., was present as a visitor, and, being called upon, exhibited some fine work. His backgrounds were particularly admired, looking like delicately painted ones with beautiful figures. These he obtained, he said, as follows: Procure a lace curtain of any pretty pattern, stretch it upon a wall, and paint it with a distemper color a shade darker than the background it is to be used over When dry, hang the lace over a plain background, and use in the usual way. The effect is excellent. Mr. Stuber also explained his method of printing and toning. The rest of the session was occupied with Association business.

PHOTOGRAPHIC SECTION AMERICAN INSTITUTE (New York) June 3d.—Mr. Marion's new carbon process was read and discussed at length. The fact that sensitive paper would keep white when rolled in newspaper, or paper covered with printer's ink, was advanced. Several had tried it with success. The death of Mr. Arthur Green, photographer, was announced, and several spoke of his interest in our art. Some instantaneous pictures were shown by Mr. De Saussace, who promised to give his method at the next meeting. Mr. Chapman explained his method of photographing diffraction gratings, which we hope to give in our next, our space now being so crowded. President Newton exhibited photographs of the new fountain recently uncovered at Central Park. By resolution Messrs. Mason and Chapman were appointed a committee to request the American Institute to make an appropriation to purchase a stereopticon. Adjourned to first Tuesday in September.

BUFFALO (Buffalo), June 4th.—Mr. Farnsworth, the Secretary, writes: The second monthly meeting was held at Mr. Samo's gallery, 294 Main Street, President Baker in the chair. The attendance was large, and the interest was *all* that could be *desired*. Eight names were added to the list of membership, making a total of thirty-five active members. Mr. Jos. Samo read an interesting paper, entitled "Our Association, and What we Hope from it." Mr. Voleskie also read a paper before the Society on "What Makes a Pleasing Picture," calling attention in particular to the artistic department of a picture. The paper was instructive, and enjoyed. The thanks of the Association were duly returned to the gentlemen for their efforts. Mr. Meredith and the Secretary were appointed to prepare papers for the next meeting. On motion of Mr. Samo, the meeting resolved itself into a committee of the whole, to take action on matters concerning the coming Convention. The President explained the nature of the work to be done, the committees to be appointed, and expressed the hope that all the members of the Association would heartily co-operate with what was being done. The expression of all the members on the subject was indicative, in the broadest sense, of united and harmonious action. Mr. Meredith, chairman of the Decorating Committee, called for more help, and Henry Miller,

S. B. Butts, Byron Pruden, H. Samo, Mrs. Coolie, and Miss Cook. were added to the list, which numbers altogether nine. The President appointed Miss Crocket, Miss Delano, Mr. Pruden, and Mr. Farnsworth Committee on Badges. These badges are to be worn by all members of the Association during the Convention season. The badge will consist of a light blue ribbon with the letters "B. P. A.," and will be worn on the left side. The President will appoint at the next meeting a Reception Committee, who will be in waiting at the depots to direct photographers where to go. They will be known from other people only by this *blue badge*, and a few black stains on their fingers. It is hoped that photographers will make a note of this, and be prepared to detect; and let me add that we have a great many ladies in our Association—workers, too, and if any of them should appear at the depot with a blue badge, it is hoped that photographers will not be overcome by any kind of modesty, but walk right up and make known their wants.

## ART STUDIES FOR ALL.

### III.

(Continued from page 122.)

15. The first and last great object of study should be the *drawing* of the human figure. By this we mean the form and proportion of the various parts, their relation to each other, and the manner in which they are brought into action. Remember that you may distort them by means of your camera and by your lighting and posing. It is this study, followed by practice, which will give you a "skill of hand" which will be invaluable to you.

16. If you would attain excellence in this respect you *must* work according to rule, and the first step is to acquire an accurate knowledge of form, and then the ability to pose a figure with a correct outline. Many a photographer is apt to think that he being a natural genius, rules are superfluous to him. He had better be cautious, or he will be left behind. His art will grow beyond him.

17. Leonardo da Vinci says: "The principal and most important consideration required in the drawing (with us, posing) of figures is to set the head well upon the shoulders, the chest upon the hips, and the hips and shoulders upon the feet."

18. All the great masters were incessant in their study of drawing, and diligently practiced it. Sir Joshua Reynolds says: "When they conceived a work, they first made a variety of sketches; then a finished drawing of the whole; after that a more correct drawing of every separate part, head, hands, feet, and pieces of drapery; they then painted the picture, and after all retouched it from life." So should photographers take a model, and make negative after negative in leisure times, each time examining the result, searching out its shortcomings, and correcting them in the next effort, until satisfied that the last picture is according to rule. It is no credit to you to say that you made a great number of negatives in a given time, unless they are all good ones. One good, faultless negative is worth any number of indifferent ones, and will pay best. Besides it is something well done. When you go to judge of your work, do not let the test question be "Will that do?" but "Is it the *best I can do?*"

19. This spirited mode of performing a work, showing a ready mind and a practiced hand, is termed by artists execution. The term is applicable to photography, not alone because making pictures is "taking off heads," but because the ignorant mind and the unpracticed hand of the photographer as well as the painter are made apparent by his work. Compare the work of the one class with that of the other. The one will have a "wide-awake" appearance, while the other will seem "fast asleep." Let your pictures look as if they had been "struck off at a blow"

20. With a thorough knowledge and practice of this the grammar of photography, rules will not restrain your freedom in producing the effects just described.

21. The ancient gladiators were exercised with heavier arms than those with which they fought; the ancient tragedians accustomed themselves to declaim while sitting, for it is more difficult than the same exer-

cise when standing, for the reason that if a person is accustomed to perform things more difficult than the ordinary exercise of his employment requires, makes it easy of accomplishment. Take a hint from this. Select a model, and as you have time, work, and work, and work at it, setting yourself more difficult tasks than you ever expect to have in your ordinary studio work, and you will find the exercise of immense advantage to you. You may have to conquer an indisposition to do this. If your inclinations do oppose you, *fight yourself* until you win. We find that we often have to battle against our own will and inclinations, but when we conquer we often find that the work we accomplish, fighting for it inch by inch, is the most satisfactory to ourselves. Try it.

22. Very often we know what we want, but do not know how to attain it. It is a grand victory to know what you want, to begin with. Work up to the extent of your knowledge, and then *think*—reach out as it were into the depths of knowledge, and you will gradually accomplish the desired results. A little talent is susceptible of great improvement, and may be so developed as to produce most excellent work.

23. The value of the cultivated ear is well understood, but it is not so valuable as a cultivated eye You can possess the latter by hard practice under rule. If you would cast a beautiful figure, you pour the molten metal into the mould, and not at random upon the yielding sand. So must you be governed by the rules of art in order to produce the best results in your profession. Just as the outlines of the mould drive the metal into shape, so will these rules gently shape you when at work, suggest expedients to you, and enlarge your field of invention.

24. All the guiding principles of art may be learned in the human figure, and in this respect photographers have advantages which they cannot overestimate. It is no credit to you to be able to boast that you are a self-taught artist. Do not attempt to teach yourself if you really ever desire to acquire the principles of art. Music that is not true to key and measure is condemned for its discords. Try working your chemicals contrary to rule, and see the mess you will make. Go on with your lighting and posing at random, and see what a conglomeration of ugliness and awkwardness you will succeed in producing.

## DIRECT PRINTS FROM LIFE BY LARGE LENSES.

Last winter a writer in this magazine undertook to tell all about the probabilities of a large lens being successful. He said optical difficulties occur to prevent. I can see such difficulties in the way of dollars only. He speaks of a twenty-four inch diameter and eight feet focus lens, taking the ground that the same general ratio should be carried out about length of focus and diameter of lens which has always been practiced.

Now if you are going to make large pictures large lenses must be used. Solar prints and enlargements are copies at best, and no man can produce the roundness which we see in a life print by either of the copying processes.

I want to see a lens made twenty-four inches in diameter, with the same curves as our six inch, and not over a thirty inch or thirty-five inch focus. This will give a flood of light through the front end of the box, and do away with using colored glasses in the box to light up with, or letting in light either before or after exposure.

This lens will make a picture in thirty seconds on a twenty-four inch plate, say four to six inch heads, and life-size heads in one minute, and with a diaphragm not less than twelve to sixteen inches in diameter. With such a lens a new power would be given immediately to photographers.

It is true that only a limited number could obtain such a lens on account of cost; but the minds of the public have got to be convinced that such improvements are really made before any real benefit would be derived. "Artists" all over the globe are to-day crying down photography as being nowhere in comparison with productions by hand. I mean "brush artists"—paint and ink slingers. I would do it myself if I were in their profession; but we photographers have got to help ourselves in starting improvements and following

them up with good results, and then after a while the public will see and believe.

The time to start this is now; and, in my opinion, this is the quickest way to do it: Invite every photographer in this country to offer assistance by subscription to a general fund, to be used by competent parties, and build one instrument, to be owned jointly at first by all who help build it; let it be used by all such a short time to try and make experiments with, and satisfy themselves of its usefulness. I mean, let it be shipped through the country at the rate, say of one week in each city or large town, which would be long enough to give it a good trial, and every subscriber make pictures with it, and when it had gone round, let the one buy it who would give the most, and the money then to be divided pro rata to the parties who built it. In this way the expense would not be heavy on any one.

The cost would probably be more for a first one than for others; but if every man in the business would give the small sum of five dollars, this alone—allowing ten thousand in the country—would be fifty thousand dollars.

I think it could be built for $5000 or less and in one year from time of starting it. Now if two hundred heavy men in the business would give $25 each, it would bring $5000; or four hundred men at $12.50 each, make $5000; and so on, according to means.

There would want to be a good box, shields, bath, and all appliances to work it, so no one would have any excuse in the matter.

Now when this is all done, what will it amount to? It will elevate our art in the estimation of the public tenfold more than paying $30 for this, $20 for that, and $5 for the other, trifling copying processes now being peddled out over our entire land.

I would suggest that the matter be brought up in the session of the National Photographic Association in July, and discussed at length, and if thought of importance enough, then start it.

I would like an expression of opinion in regard to the practicability of such a lens by any scientific man in Europe or America, including Zentmayer, Clark, Dallmeyer, Ross, Voigtlander, Usener, Drs. Vogel and Simpson.

Yours respectfully,

T. R. BURNHAM.

BOSTON.

P S.—Inclosed find prints made by a little 9-inch diameter lens made by Usener in 1868 for me.

## CONCERNING "RINGS."

A FEW words only, to quell the fears of some good friends of the National Photographic Association, who have intimated that they thought it was "in the hands of a *ring*, who are determined to control it for their own interests and not for the interests of the fraternity at large."

In all societies there is *work* to be done. It was always the fact and always will be, we imagine, that the main portion of that work is done by comparatively a few, who are either more earnest, more zealous, or more industrious than the second and largest class who are content to share all the privileges without sharing the labor. There is also a sort of a half class, we hardly know where to place them, who grumble and mutter and insinuate and misconstrue and indirectly find fault, making themselves utterly useless and hampering the usefulness of all the rest.

Such a class unfortunately exists in our glorious institution, the National Photographic Association, and they have already been repeatedly rebuked by the President and by others in the open sessions of the Convention year after year. Their great cry is that "there is a ring," but they do not ferret it out and expose it for us so that it can be broken up and peace restored.

Now, good friends, we hope that you will not carry these mutterings with you to Buffalo. On the contrary, try to promote peace and harmony there. If you see anything that displeases you, frankly and openly and *manfully* make complaint to your officers or to the open Convention, whose sessions now are only open to the members of the Association, and have your grievances adjusted.

True, the affairs of the Association are

managed by a few whom you have chosen to do the work. How can good government be promulgated otherwise? Is it not so in all state, national, and civil bodies?

But then you say, "The Association is *run* by stockdealers, or in their interests." Now how absurd and foolish. Where is the overcrowded treasury to tempt the cupidity of stockdealers? Where the tempting perquisites to entice them to such efforts as you imagine to "control" the National Photographic Association? Where the immense profits to be drawn from these annual conventions and exhibitions? Do not believe any such insinuations. We *know* that the dealers are your best friends. True, they "make their living out of photographers," but what would you do without them? Would you go back to the good old days when the photographer must make his own chemicals and his cotton and work with all sorts of awkward apparatus? Would you go back to the good old times of patent taxes and process pillaging which the stockdealers have given their thousands to help you wipe out? Would you? Doubtless you would not; so let this cry of a "ring" be stopped. It is unjust and unkind and unmanly.

It does seem mysterious what a disposition there is in poor human nature to misconstrue and to insinuate against the motives of its best benefactors. It is true that late national and civic corruption tends to arouse suspicion, but it should not make us suspect those who *are really benefiting us.* But the tendency is in that direction to a lamentable degree.

In a recent address, President Angell, of Cornell University, said: "Above all, to my mind it is hard for a man to retain his generosity and his confidence in his fellowman, enough to open his hand, when his motives are misunderstood at every step, and even the noblest deeds he does are turned into shafts to stab him to the heart with."

How sad it is that this is so! In a recent issue of our highly valued contemporary, the *Photographic News*, our good friend the editor, in commenting upon the fact that "every discoverer is a benefactor to the community," says, but "in photography it has too often happened that he who announces an improvement or discovery of any kind becomes forthwith the victim of clamor. His motives are suspected, his word is doubted, his character is impugned; his process is not new, his statements are untrue, and his results are worthless." How true this is we all know, and, we will add, that the men who have worked the hardest and who have done the most towards making our Association what it is are the ones who are calumniated the most by the class we specially address. Fortunately for our art, these men who form this dreadful phantom "ring," who have the good of photography at heart, look above and ahead of the absurd clamor which aims to hinder them on their way.

There is but *one* "ring" that *we* know of, and we confess to being "in" it. Within this "ring" we include the whole photographic fraternity. Let any one come within it to injure the interests of that fraternity, and woe betide him. It has been tried and is being tried all the time. Come and join this "ring," if you are not heartily in it, and make it your rule to apprise us promptly of anything you see or hear tending to disturb its interests or its peace. We are determined to do our duty to its members, come what may. If you could know *all* the effort put forth in your behalf by the "ring" you complain of, who often leave home and business at short notice to devise means for your protection, and whose purses are often drawn upon without your knowledge for your good, you would drop the cry of "a ring" in shame and never take it up again.

Come to Buffalo and elect men in whom you *have* confidence, and then *trust* them and believe they are doing their best for you. It is the most comfortable way at least.

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Mr. J. D. Waymouth, Nailsea, England, sends us a copy of our leaflet *The Photographer to His Patrons*, printed in England, with the cover so arranged that a little circular photograph of his gallery may be pasted on it. It is a neat idea, and we are prepared to supply our patrons with it for a similar purpose.

## MR. ANDERSON'S BOOKS.

THE *second thousand* of Mr. Elbert Anderson's *Skylight and Dark-Room* is rapidly being sold. Of this book, Mr. E. Z. Webster, Norwich, Conn., a veteran in our art, says: "I do not think there is an operator or photographer, old or young, who cannot get ten times the cost of the work out of the same. It is the most practical and valuable book on photography that I have ever seen." What Mr. Webster says is very true. Mr. Anderson's "*Allmyknack*," which embodies instruction with amusement, is the same shape as his other work, and is a beautiful, useful book. You should by all means have it.

## Jottings from the Journal of an Experimentalist.

UNDER this head, by the courtesy of his excellent wife, we are enabled to give some jottings from the journal of the late Mr. V. M. Griswold, of Peekskill, N. Y., who was a well-known and industrious experimentalist. His hints, as recorded by him at the time they were suggested to his mind, were never made public, and his life was cut short before he could develop them. They are now given to the fraternity with the hope that if they prove of value to any one, that the widow and children, who were left in a needful condition, will be substantially remembered by those who are benefited. Mrs. Griswold's address is No. 242 East 74th Street, N. Y.

Among other things, Mr. Griswold was experimenting in the direction of *direct* carbon printing, and sent us some very promising examples some time previous to his death. Our first quotations from his notes are on this subject, as follows:

*Experiment* 1.—Prepare paper with bichromate of potassium containing ferrocyanide of potassium, and develop after washing with sulphate of copper. Try this with and without gelatin or gum arabic.

*Experiment* 2.—Try ferrocyanide of potassium alone in the same way.

*Experiment* 3.—Add silver to gelatin or gum arabic, and develop with bichromate of potassium.

*Experiment* 4.—Print from type or engraving (by simple pressure) with some substance containing ferrocyanide of potassium (on dry paper), and develop with sulphate of copper solution.

*Experiment* 5.—Mix ferrocyanide of potassium with thick glycerin; dab or roll out on type with this; pass electric current through it in usual way; develop with copper. Try iodine and other substances in same way. Try other mixtures with above (to thicken) besides glycerin. This formula is for dry paper. If paper cannot be made to answer for a bed, try fine iron filings or dust, or other metallic dust which is a conductor. If Frank's platina points could be made to pass through glycerin or other similar substance containing the sensitive material, or if the points could be charged with the fluid like a pen, dry paper could be used, and the whole operation very much improved and simplified. If the electric point carrying the sensitive solution will not act readily enough, add an extra point in front of each, to carry the sensitive solution in lines, or charge the electric points with the sensitive medium as above, and pass dampened paper under them without other preparation. This same idea might be applied to the process of printing by electricity. Dab the type or cut with the sensitive substance in glycerin or other suitable medium, and use under it paper simply made damp with water. Many substances could be used in this way which cannot be used by the present method.

*Experiment* 6. — Let a piece of paper strongly charged with bichromate of potassium be floated on a sufficiently thick gelatin solution to give a nice glazed surface (sugar might be added), and when dry expose gelatin side under a negative, mount on glass, gelatin side down, and develop from back. Color as by my process—or add the pigments to the gelatin before coating the paper. Bichromate of potassium and ferrocyanide of potassium might be used together as a sensitive medium, and, after development, colored with copper as in Experiment 1. The gelatin side might be mounted on paper or cardboard also before development, and colored as above.

*Experiment* 7.—Take a steel, platinum,

or gold pen, charged with the sensitive medium and attached to the positive pole of a battery, and write on paper simply dampened with water. This will test this class of experiments. Pens of different metals would be expected to give different colors, &c. Fix or recolor in proper medium.

*Experiment* 8.—Try whether paper saturated with metallic salt will not pass the electric current when dry. If so, numberless experiments will naturally suggest themselves.

*Experiment* 9 —Make sensitive collodion tablets, either by the introduction of oil into thick collodion or coury or other gum, or coury, collodion, and oil together; or make the tablets to be sensitized afterwards like glass plates.

(To be continued.)

## Atkinson's Safety Mail Envelope.

Photographers who have pictures to mail to their customers have often been greatly annoyed by having their parcels tampered with, and the whole or part of the contents stolen. Or they have been put to considerable trouble by exacting postmasters to put up their parcels in a way to send them at the cheap rate of postage.

Mr. Atkinson, the inventor of the Safety Mail Envelope, having had a good share of these annoyances, has, he thinks, overcome them all. His envelope is made of stout paper, of a peculiar shape, and not sealed together. Instead of that, the envelope comes to us outspread, with three of the four extremities of the paper gummed. It is now ready to receive one card or two dozen. The pictures are simply laid upon the sheet in the centre, the flaps folded over them firmly, and the parcel is ready for mailing. The peculiar shape of the envelope enables the photographer to leave a small part of the corners of the pictures exposed. It will thus be seen that the pictures are compactly held, so that they cannot slip from the parcel or be pulled out, and yet, the corners being exposed, the parcel can be examined by the postmaster agreeably to the conditions of the postal law.

The business card may be printed outside.

They appear very convenient, and as they are advertised in the proper place, photographers can test them for themselves.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

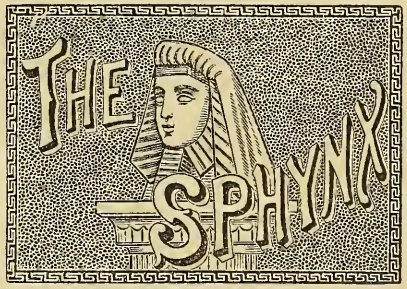
*A perfectly Air-tight Cork for Collodion, Acid, &c.—Another Novelty in Portraiture.*

*A perfectly Air-tight Cork for Collodion, Acids, &c.*—A very useful little contrivance was brought under my attention a few days ago by a correspondent. It was new to me, and may possibly be new to you, although we rarely think it possible to teach anything in the shape of ingenious contrivances to our American cousins. This consists in a perfectly air-tight cork which is not easily injured by chemical solutions. The value of a perfectly air-tight cork, not liable to easy injury by various kinds of chemical solutions, must commend itself to photographers without many words of detailed eulogy. For collodion, varnish, and many other preparations, such a cork is pre-eminently desirable. Glass stoppers are rarely perfectly air-tight. Corks readily stick and get broken in removal, and are, moreover, readily injured by acids, &c., and are themselves injurious to silver solutions. A correspondent has brought under our attention an admirable contrivance to meet the difficulty. It consists of the well-known ingenious cork introduced a few years ago in this country as Fleming's patent cork. It consists of two pieces of wood with an india-rubber band between. A screw causes the wood to compress the band in one direction and distend it in another, making the perfectly air-tight stopper which you are doubtless familiar with. The sole contrivance by which this is rendered suitable for use in photography consists in pulling over it an india-rubber finger stall, which fits tight, is elastic, and protects it perfectly from acting on or being injured by almost any solution used in photography.

*Another Novelty in Portraiture.*—Another

mode of finishing portraits has recently been patented in this country, the result being entitled a "chromo-crayon photograph." There is nothing strictly new in the method, which bears analogy to various other modes which have from time to time been introduced; but the result is pleasing. The process reminds me of an old American method of finishing pictures, the result of which was, if I remember rightly, called the "Ectograph." The portrait consists of a transparency on glass, generally an enlargement, exposed and developed so as to give the best result by reflected, not by transmitted, light. It is coated with a ground-glass varnish, or something which will give it an opalescent effect, and finally backed with drawing paper, tinted or shaded so as to produce the desired result. One of my correspondents sends me an account of a method by which he has for some time produced similar results. Having obtained a good transparency, he says:

"Take flake white and mastic varnish and a little turpentine; make it of a consistency like collodion; pour it over the plate in the same manner as with collodion; put the remainder back into the bottle, and let the film dry; after it is dry, examine it on the front, and you will find it looks as if it were taken on opal glass, only it has a bluish tinge. This is the medium, as it has been called. The next thing to be done is to sharpen up the eyebrows, eyes, and hair; also stipple the face. You can apply either water-color, crayon, or oil-color, as artistic taste may dictate. If some of your readers are not up to the art, they can supply the deficiency with colored paper at the back, or color the face with colored powder (as done on glass positives). The background can also be made up with colored paper suitable to the complexion. Backgrounds can also be graduated, if necessary, with water-color, by dipping a piece of sponge in water-color, and applying it on the paper, and then softening it off with the finger, and applying it to the portrait. The drapery can also be backed up with colored paper—such as white paper to the shirt front, paper of different colors to the face, &c., or as will best suit the artist's taste."




THE intention of *Sphynx* is to give photographers an opportunity of *asking each other questions*, and of answering the same. We do not want querists to expect Sphynx to answer them, but we do want practical photographers to do it. Will they not assist us in imparting instruction in this way?—ED. P. P.

CAN you prevail on the "Sphynx" to publish a sure and simple formula for making *good* ferrotype varnish? Let the answer come soon, please.—B.

PLEASE tell me what kind of a picture "German finish" is. We have four galleries in our town, and one of them puts out a big sign at the door, "German finish, up-stairs." Please tell me what kind that is.—GREENHORN.

"Greenhorn" has the best opportunity of any one to find this out. Send a friend to get you one. Did you never think of that?—SPHYNX.

*Queries.*

TO-DAY I opened a bottle of ether; after getting out what I wanted, I noticed some bubbles start from about the middle of the bottle, which increased for a few minutes. I then put the bottle in a bucket of water for a short time and the bubbling ceased. What was the matter?—W. A. STALLARD.

WHAT sort of arithmetic does Elbert Anderson use to make, on page 131, May No., "Collodion No. 1: Iodide ammonium, 5 grains to the ounce, bromide ammonium, 3 grains to the ounce. And in Collodion No. 2: Iodide cadmium, 7½; bromide of cadmium, 4½; and mix 1½ parts No. 1 and 4 parts No. 2," to make these foot up 14 grains to the ounce? Will he please enlighten us? One in search of light and knowledge.—STUPID.

*Answers.*

"Stupid's" questions are easily answered. It will be necessary for him to understand that a collodion containing 5 grains of iodide of ammonium and 3 grains of bromide of cadmium = 8 grains per ounce; but as the iodides and bromides here contain a great deal more iodine and bromine than if he used 5 grains of iodide of cadmium and 3 of bromide of ammonium, the latter would require 7½ iodine and 4½ bromine to equal the 8 grains of the former. Thus I assume the *weaker* sensitizers as my standard. Let him make his developer 25 ounces of water, 1 ounce of iron, and 2 ounces of alcohol, and ½ ounce of acetic acid. Bath 30 grains; work down to 25 and 22.

ELBERT ANDERSON.

## OUR PICTURE.

THE beautiful picture which graces our current number is a specimen of the work of our good friend, Mr. W. J. Baker, Buffalo, N. Y, the Local Secretary of the N. P. A. for 1873, and a gentleman whom we shall all soon see face to face, and from whom we are sure of a cordial welcome.

He has given us some facts concerning the picture, which so close our mouth that we must add them before going further. He says:

"Having repeatedly given my formulæ and also an explanation of the plan of my operating-room, it seems quite unnecessary to say anything about them now.

"The negatives were made in dull winter weather; none of them received less than one minute with the full opening of a 3 A Dallmeyer; some of them a minute and a half. They were not originally intended for a journal print, but to fill orders for the lady who is, as may be known to many of the readers of this, a musical celebrity, but she very kindly at once consented when application was made to her, and with a cordiality that only those who have tried to get subjects for the purpose can fully appreciate.

"No one musically inclined can spend a more pleasant evening than in listening to Rosa D'Erina's unique and sparkling entertainments, which are made instructive as well as amusing. Whether singing, playing, or reading, she carries herself with a vivacity and naïveté that never fail to warm and attract her auditors.

"A short sketch of her life and exploits was some time ago published in a New York paper, and we had intended to reproduce it here as worthy of interest in connection with the picture, but it has been mislaid.

"I cannot close without thanking my coadjutors for the prompt and kindly way in which they responded to the suggestion that has made this picture what it is,—a contribution to the reimbursement of Mr. Wilson in the matter of the libel suit.

"The friends are John R. Clemons, Philadelphia, who gave the paper; Messrs. J. F. Magee & Co., Philadelphia, who gave the silver and gold; and A. M. Collins, Son & Co., Philadelphia, who presented the mounts.

"Whatever failure there may be found in the quality of any of the prints, you may rest assured, is not chargeable to any of the above-named gentlemen, but to the difficulty of maintaining uniformity through so large a printing as is required to illustrate this journal.

"Hoping soon to have the pleasure to meet all of you face to face, and of receiving your assistance in making the fifth annual convention what we expect it will be, less of a baby, but a larger child than any of its predecessors, I am,

"Your very obdt. Local Sec.,

"W. J. BAKER."

This is one of the greatest as well as one of the most gratifying surprises we have ever had in our photographic experience. It is not the intrinsic value of the pictures so much as it is the kindly spirit evinced by the gentlemen whose names are mentioned above. We had looked upon the loss which befell us in sustaining the rights of our fraternity as a thing of the past, mainly to be borne by ourselves, yet never forgetting the few noble friends who responded to the call, headed by Mr Baker, in our behalf. This awakens all the old memories, and it is fitting that we should make a public acknowledgment of the substantial sympathy thus shown us. Yet we must not do so until

we have included another good "friend," whom Mr. Baker has forgotten to mention, namely, his own good self, for he it was who started the idea, he who called the others to his aid, and he who *gave* the labor necessary to print and mount the pictures. All we can say in addition is, that *it is just like him*, and those who go to Buffalo will find it out. Only those who know what labor it is to print enough pictures for our edition, know what Mr. Baker has done, and only those who have felt *alone under trial*, know how such an act of kindness as this *touches* the inner man. We shall not comment upon the picture or upon its accessories. It will speak for all these, and we commend it to your careful study.

We all know that Philadelphia is celebrated for photographic manufactures, and that no one makes better cardboard than Messrs. A. M. Collins, Son & Co., better chemicals than Messrs. J. F. Magee & Co., or better paper than Mr John R. Clemons. May prosperity long attend them!

# Editor's Table.

☞ Meet us in Buffalo.

In noticing a late issue of the *Philadelphia Photographer*, the *Age* says: "It always gratifies us to notice this magazine, because it fulfils in a very thorough manner the part of guide and instructor in the art to which it is devoted. No practitioner or amateur should be without it."

Correspondents will please remember that our duties to the N. P. A. will require our presence at Buffalo, N.Y., from July 12th until July 21st, where we may be addressed. If delays occur in our responses, please be lenient and patient.

Our present number will, we think, be found a model one of interest and usefulness. Our reading-matter is varied, and many of our advertisements are new and fresh. They will all bear reading; and do not forget the always useful *Photographic Times*.

Philadelphia is the most convenient locality in this neighborhood to start from for the Buffalo Convention. Arrangements will probably be made for a parlor car for parties leaving here on Saturday the 12th inst., and for another on Monday the 14th. Parties desiring further information not in the regular circular will please address us.

Black's New Stereopticon Manual, and Catalogue of Stereopticon Transparencies, is a new work by Mr. J. W. Black, Boston, which he sends free to applicants. Its title explains its use, and its author is the best posted on the subject.

Parties who have papers to read at the Convention would oblige us by sending them to us a week at least beforehand, say by July 4th, that we may arrange the programme.

During the Convention we hope that every one of our subscribers present will give us a chance to shake them by the hand and have a word with them. We ask this pleasure because it is about all we get at the conventions, our duties as Secretary compelling us to be on the drive most of the time, yet it is a pleasure to us to see others enjoy it.

Did any happy editor ever have a more gratifying testimonial of appreciation of his humble services than the picture in our present number, given to us through the kindness of the donors? We appreciate it in all respects.

Waymouth's Vignette Papers seem to take, over 5000 having been sold already. They print best with glass between them and the negative, or at a little distance from the negative.

Mr. Anderson's very funny *Allmyknack* is ready. 75 cents.

Mr. J. J. Vanderweyde, Montevideo. — Your communication has been received, and we shall be glad to hear from you frequently.

Messrs. Bendann Brothers, having dissolved partnership with Mr. Bogardus, have purchased the new Fredricks' gallery at 1134 Broadway, New York, where they have very handsome rooms and will be glad to see their many friends.

Robinson's Photographic Trimmer trimmed the pictures in our last number, and our mounter finds that the little instrument saves her a great deal of time. It wins firm friends wherever used.

PHOTOGRAPHS OF CHICKENS.—Mr. E. M. Van Aken, Lowville, N. Y., sends us several excellent stereo groups, from nature, of an old hen and chickens, and of a group of grown fowls.

MR. L. E. WALKER, Warsaw, N. Y., favors us with his catalogue of interesting stereographs, together with a number of capital views of Watkin's Glen and other beautiful scenery, and a number of well-arranged groups of a series he calls "Pleasing Studies for our Young Folks," equal to those by Weller and Griswold, made by his photographer, Mr. C. W. Buell. Dealers will do well to refer to his advertisement.

ITEMS OF NEWS.—The Boston Society issues its notices on postal cards.—Mr. T. R. Burnham's new gallery, at 419 Washington St., Boston, was destroyed by the late fire in that city. —Mr. Romain Talbot, 11 Karl Strasse, Berlin, has sent us his price current. He is a reliable dealer, and worthy of any foreign commissions. —Messrs. Wager & Churchill have just opened a new and first-class gallery on the ground floor. —Mr. W. E Bowman, Ottawa, Ill., has issued a new and elaborate catalogue of his stereo views. —Messrs. Cramer, Gross & Co. have occupied their new rooms, corner Choteau Avenue and Fifth Street, St. Louis. The "opening ceremonies" were held on May 20th.—Mr. W. F. Bacon, formerly of Estabrooke's, New York, has formed a copartnership with Mr. A. K. P. Trask, Philadelphia.

MR. J. KIRK, Newark, N. J., has obtained a patent for producing an image on both sides of the negative at one exposure. The resulting prints are soft, and similar to those by the Berlin process.

MR. WELL G. SINGHI, Binghamton, N. Y., sends us some of his excellent work to know if it is good enough to warrant him in asking the National Photographic Association's prices for it. He says, "I mean to stick to the N. P. A prices, if I burst." We commend his work, and commend him for his energy and pluck.

A FACT.—Mr. W. J. Oliphant, of Austin, Texas, writes us, viz.: "With Anderson's *Skylight and Dark-Room* and Bigelow's *Album of Lighting and Posing*, there is no excuse for any one of common sense to make poor pictures —though, of course, there are many subjects from which it is almost impossible to make good photographs, and they can be found everywhere."

EXAMPLES OF WORK RECEIVED.—We have some beautiful specimens of photography from Mr. W. M. Lockwood and his wife, Mrs. E. N. Lockwood, Ripon, Wis., and from Messrs. Roberts, of Urbana, Ohio, and R. B. Lewis, of Hudson, Mass. Progress and improvement is stamped upon the work of all. Mr. J. Pitcher Spooner, Stockton, Cal., also sends us some exquisitely soft effects of lighting, which show him to be master of that branch of the art which he loves so much. Evidences of improvement surround us on every side. It is sure to come wherever our art is intelligently prosecuted. Here is an example of it: Mr. W. C. Tuttle, Belfast, Maine, sends us a parcel of flat, expressionless pictures, badly posed and lighted. and with horrible chemical effects. These he made in 1870. In another envelope he sends us some that possess all the qualities of modern good work, and showing immense progress. He says: "I send them that you may see whether or not while reading your journal I have been improving," and adds, "Three years ago I could hardly afford to take the *Philadelphia Photographer*, but now I cannot afford to do without it. It is to me a stimulant to photographic study, a cheerful companion, a practical daily guide, and a source of great benefit." We congratulate Mr. Tuttle on his progress.

OF COURSE.—Mr. G. H. Sherman, of Elgin, Illinois, writes as follows: "I have read with pleasure of your effort in trying to establish a photographic institute or college. I am more and more convinced of the necessity of such an institution, from the fact of the prevailing ignorance of a great majority of the photographic profession, especially in the country. Yesterday I had a call from a rural photographer. I asked him about business; it was dull. Did he take the *Philadelphia Photographer?* No. Did he belong to the National Photographic Association? No. Did he attend any of the conventions? No. Did not think there was much to be learned. 'Did not think the pictures exhibited were such as country photographers *would oughter* PATERNIZE after.'

"O ye shades!

"I asked no more questions. I gave him a copy of the Constitution and By-Laws of the National Photographic Association; told him it was a good thing; advised him to join, and also subscribe for the *Philadelphia Photographer;* but I don't think he will do either.

"Inclosed find a little of the indispensable for the indispensable *Philadelphia Photographer.*

"Business is good.

"Count me in for Buffalo."

Of course business is good with such wide-awake men as Mr. Sherman.

THE

# Philadelphia Photographer.

Vol. X. AUGUST, 1873. No. 116.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## THE N. P. A. CONVENTION.

Owing to the early issue of our current number, those who stay at home and cannot get away will be perusing its pages while the Convention at Buffalo is in full blast. We wish that all of our readers could be there enjoying the feast; but, as that cannot be, we promise to give them in our next issue a *full report* of all that takes place of interest to the fraternity. As these reports are usually long, we shall probably have to issue a triple number; and, judging from the programme already arranged, it will be the *best* number we ever published.

We will only add that the cost of issuing these reports is very great, and we trust our readers will carefully read and benefit by the extra matter we take pains to secure for them.

Dealers who wish extra copies should order them in advance, as the demand will be great. Aside from the report of the business affairs of the Association, which interest *every* photographer, the report of the discussions on all photographic departments of work, and the papers read will form a fresh and invaluable photographic *work*, which every photographer in the land should have.

We shall issue the number as *early* in August as the great labor entailed will allow. After that our numbers will come to you at the usual regular time.

## GERMAN CORRESPONDENCE.

*Vienna Exhibition—Photographic Institute—Osborne Prints—Denier Pictures—Action of Permanganate—New and Curious China Vessels—Actinic Action of the Spectrum—Action of Colors in Photography—Effect of Long and Short Exposures.*

The World's Fair has opened. This news you have heard already some weeks ago by cable. The same reporter has informed you of the present condition of this gigantic undertaking. I was there at the opening; at that time there was almost nothing to be seen of photography, and I am, therefore, unable to say anything about it. Dr. Zenecker, the delegate of our Society, who undertook the arrangement of the German exhibition, has returned; he also left the exhibition in an unfinished state. Let us hope that everything will be finished when these lines reach you. I shall return to Vienna in a few weeks as judge on—photography, you will say, but no, my diploma says—judge of the multiplying (?) arts and industrial drawing. To the multiplying arts photography belongs, of course, but I shudder at the idea that, besides this, I shall be the judge of lithographs, wood-cuts, &c., or that the lithographers, copper-plate engravers, and draughtsmen shall sit in judgment on photography. Every one for himself; too many cooks spoil the broth; and

when this does take place every one who has helped in the cooking will get his share of the blame. I confess, therefore, openly that I do not look on my position, as a member of the jury, in a very rosy light. I have had too much experience in this direction. As I have to defer my report on the Vienna Exhibition to my next letter, for the reasons stated above, I will in the meantime speak of sundry other things which have happened elsewhere.

With a kind of envy I read of the efforts that are made in your country to establish a photographic institute. We wish you all possible success. We, ourselves, do not even venture to make a proposition of the kind, because we know that it would be useless. Photography with us is still the Cinderella amongst the arts, and will remain so for a long time to come. In our high schools it is only suffered on account of its scientific and technical application; the artistic point is not appreciated; no wonder, therefore, that the want of well-schooled operators is felt here as much as with you. The German photographers have to rely on themselves for the present. Help yourself is the motto on both sides of the Atlantic.

Our mutual friend, Prang, of Boston, laid before our Society a number of splendid photolithographs made by Osborne. They were generally appreciated by practical men; they are the most perfect specimens of photolithography that I have ever seen.

The discussion of the Society still turns on the mezzotint effects of Denier and Jacoby. I have tried Jacoby's method with good success; still there are many other ways by which the same result may be reached; for instance, by holding two glass plates in front of the objective, and moving them in opposite directions during exposure. Very good results are obtained in this manner. Still another way is, by taking the picture on the ground side of a piece of ground-glass. The results obtained in this manner are also satisfactory, but neither process is applicable when it is desired to have a mezzotint print from an old negative; for such a contingency Jacoby's process, which was published in the April number of your excellent magazine, is the best. The process is practiced here by placing a gelatin film between the negative and the paper after the print is about three-fourths finished; printing is now continued until the desired intensity has been reached. I remark, however, that these pictures are not liked in Berlin; they are more in favor with the provincials.

Mr. Feyerabend, of Tilsit, communicated lately some observations on the effect produced by permanganate of potash on the nitrate bath. We have frequently heard the complaint that this substance not only did not restore the bath, but made it worse. I, myself, was perhaps one of the first who employed permanganate, and in my hands the results have always been satisfactory. I always succeeded in removing organic substances from the bath by its aid, and for this purpose only should it be employed. If its employment affects the bath injuriously too much of it has generally been used. Mr. Feyerabend has demonstrated that, under these circumstances, aldehyde is formed. The alcohol, which is always present in an old bath, becomes partly oxidized by the permanganate, and forms a substance midway between alcohol and acetic acid, *i. e.*, aldehyde, $C_4H_4O_2$. This substance has a reducing action, and hence fogginess is apt to result. This tendency to fog is not removed by acid, but by heating the bath to 80° Celsius, when part of the silver will be precipitated in the metallic form, and the remaining aldehyde will be evaporated. I believe, however, that all this trouble may be avoided by employing the permanganate in very small quantities. I have never observed the above-mentioned formation of aldehyde. I use a solution of one part permanganate to fifty parts of water; of this I add a *single* drop to the bath, and if the pinkish color disappears rapidly on shaking the bath, a second drop is added; drop by drop is added in this manner until the color becomes permanent for at least three minutes. Should the bath give veiled pictures, a drop of nitric acid will remedy it.

While talking of the nitrate bath I have to mention a peculiar dish which I have lately used for holding the silver solution, and with the best success. It is nothing less than a Chinese tea-tray. The beautiful varnish of these trays attracted my atten-

tion long ago. Alcohol may be poured upon it and burned without affecting it. I tried if these beautiful dishes could not be used for photographic purposes. To test the question, I put a freshly-made nitrate bath in one of them, and left it for forty-eight hours; a negative plate, which had been prepared in the bath, showed slight streakiness, as if organic matter was present; three drops of permanganate of potash solution remedied this defect, and the bath worked splendidly. Since four weeks I use the bath. The silver solution remains in it for twenty-four hours and longer at a time, and not the least disarrangement is apparent. The convenient shape, the edges are rounded off, the extreme lightness of the wood, not much heavier than cork, has made this dish the favorite with all my scholars. These trays are sold here a great deal as articles of luxury. The price is about two dollars; and I recommend them to photographers as very convenient. It is a curious fact that the delicate gilt figures are not affected in the least by the solution.

A person who has travelled much in China states that these dishes or trays are made of calves' hair; the hair is soaked in varnish. I can hardly believe it, and make the statement with due allowance; but no matter, they are good, and we will find in the future these China dishes, which come from China and are not china, in all the photographic stores.

The committee of the American Institute for examining Gutzlaff plates and the effect of before and after illumination, published a report last year on the photograph of the solar spectrum, and stated that all the colors, even yellow and red, affect the sensitive plate. This assertion, which seemed rather strange to me, induced me to make some experiments with the spectrum. I made the experiment on a very bright day, and used a spectroscope of great light-intensity. Already in twenty seconds I obtained a picture of the spectrum to the line *b* in the centre of the green. I extended the time of exposure to eight minutes, but obtained only one impression to beyond E; the action beyond E towards the yellow did not extend further than the distance from E to *b*, and no widening of the slit would alter the result. Possibly the bright American sky, and the brilliant summer sun of New York, act with so much more power as to impress the yellow and red on the sensitive film.

This sensitiveness to color is for the photographer a question of great moment, not only in copying oil paintings, but also in portraiture, for on the human head we have to suffer enormously by the difference of color. Blonde hair and blue eyes, more or less reddish or yellow color of the skin, all cause great difficulties, because everything has to be taken by one exposure; and yet the blue eyes are overexposed before the yellow hair has commenced impressing the plate. Retouching has to remedy this, and it does remedy it; but, and I confess it openly, it gives to the skin more the appearance of leather or wax than flesh. The wonderful transparency of the skin which we notice, for instance, in the eyelids, the lips, &c., is lost in the photograph, and the parts appear dull and heavy. I know very well that thousands, nay, perhaps millions, are satisfied and even delighted with photographs, and I do not wish to spoil their pleasure, but when I see a portrait by Richter or Kraus, I feel how much more truth to nature is in them than in the best of photographs.

My friend Petsch, who is now an industrious painter, has struggled for years to overcome these shortcomings. He declares now that all his pains have been for naught. Still we must be just to photography. It is perhaps wrong to compare it with oil painting: the comparison is much more fair when we take those arts which, like photography, produce pictures in black and white, and every unbiassed person must confess that a good photograph, *i. e.*, portrait, gives much more satisfaction than the best lithographed portrait.

I have stated before that Petsch has bidden farewell to photography. I learn from Paris that Adam Salomon has also abandoned photography. The reasons are not stated, but I suppose that he finds sufficient employment as sculptor, for Salomon is as good a sculptor as he was a photographer.

In conclusion, a few remarks on the effect of long and short exposure. It has frequently been stated that a picture taken

with an instrument of great light-intensity and short exposure is much more brilliant than one which has been made with a slow-working lens and long exposure. Dallmeyer, amongst others, expresses this view. My own personal and practical experience did not coincide with this view, and in order to be satisfied I made several experiments. I took a Dallmeyer stereo camera, and stopped one of the lenses until its light-intensity was fifteen times less than that of the other. A plate was now exposed, the one lens remaining exactly fifteen times longer uncovered than the other. The plate, on being developed, did not show the least difference between the two pictures. They developed with equal rapidity, and the relative contrast between light and shade was in both pictures exactly the same. An objective feeble in light gives therefore the same result as one of great intensity, provided that the time of exposure is suitably lengthened. This experiment did not satisfy me, however. The assertion that a plate exposed for a short time under an objective of great intensity is more brilliant, has been made on too good authority that I should feel satisfied to deny its correctness at once. This led me to the supposition that the quantity of silver which adheres to the plate has perhaps something to do with the result. This quantity is for short exposures, of course, greater than for long ones. The greater the quantity of solution the greater will be the intensity of the picture, for the reason that during the development an intensification (of the lights) takes place. I exposed simultaneously two plates, the one for ten seconds, and the other, with an objective of fifteen times less light-intensity, for one hundred and fifty seconds. Each negative was developed immediately after exposure. The result was that the plate with short exposure was more intense, but it did not show a particle more detail in the shadows than the other.

This proves that the greater brilliancy of the plates exposed under objectives of great light-intensity is due to the larger quantity of silver solution adhering to the plate, and not due to the lens.

Yours truly,

H. Vogel.

## ON STELLAR PHOTOGRAPHY.

BY C. S. SELLACK, PH.D.,

Professor of Physics at the University of Cordoba, South America.

1. *The Object of Stellar Photography.*—The fixed stars are to us such infinitely small objects that we may observe them through the strongest enlarging apparatus that has ever been constructed, and yet they appear only as points without any appreciable size. So they are rather queer objects to be photographed. As their image is a luminous point, their photograph is nothing but a small speck, the smaller the more the lens is correct and the state of the atmosphere favorable. All this even if the largest lens is used which gives beautiful pictures of the sun with his spots, the moon with her mountain ridges and chasms, the planets with all that has been observed on their surface, Saturn with his rings and zones, Jupiter with his belts. The object of photographing fixed stars cannot be to get a likeness of them. Their photographs are all alike, little dots, the size of which depends more or less on the time of exposure, yet if we could bring our camera nearer to them a fair number of billions of miles they would all show individual appearance. The millions of miles which we are carried about by the earth in her yearly way round the sun do not do at all for this purpose. However, this motion offers chances which are used in stellar photography for other purposes.

The object of stellar photography is the photography of *constellations* or of the *relative positions* of stars. The determination of the positions of the fixed stars has been always one of the chief objects of astronomers. It might be supposed that the catalogues are complete, and that the matter is settled. It is not; the catalogues of stars, as far as photography can be now applied to them, that is, to the ninth magnitude, are not complete; besides all measured quantities are capable of correction by varying and refining the methods. The photographic process has scientific importance, because it offers advantages in facility and correctness of results. But what after all is the use of knowing with all possible ac-

curacy the positions of thousands and millions of fixed stars? If they are and will remain the same since creation, why not leave that work to generations thousands of years after us, when all things more useful to mankind will have been invented and recorded?

The fixed stars are *not*, what their name indicates, without motion. All nature is restless, so there is no end of studying it. The fixed stars, indeed, change their places so slowly that the builders of the pyramids, four thousand years ago, saw the constellations very nearly the same as we do now. The most refined astronomical methods only show, in some cases, that change within a small number of years. The study of the *proper motions* of the fixed stars has been just begun, and requires accurate measurements continued for ages.

The matter has another interesting view. The fixed stars are not motionless, and they are not fixed either to a huge sphere encompassing the heavens; their *distances* from the earth are *different*, though those of the nearest are astonishing. The photographer who wants to take a picture of any object will always try to get different views of it. Two pictures of an object at a moderate distance, taken from two points a few inches apart, appear different to the eye, and produce, combined, the stereoscopic effect. No distance on earth is sufficient to give different pictures of the constellations. However, within a year we are swung about the sun in a circle of one hundred and eighty-six millions of miles diameter, so that after half a year we are at a place in space one hundred and eighty-six millions of miles distant from our present. That enormous distance is just sufficient, in some cases, not for the unaided eye nor the stereoscope, but for the most refined astronomical methods, to show a change in the relative positions of some stars with their neighbors. When we ride on the railroad over plains, and see spread trees in the distance, the nearer ones seem to go back, while the distant ones seem to keep up with us. If we know the speed with which we go on, and measure the apparent change of position of a very distant and of a less distant tree, we can compute the distance of the less distant tree. That is the principle by which the distance of the nearest fixed stars has been found; it is billions of miles.

By combining accurate measurements of the positions of neighboring stars for years and centuries, a change can be ascertained, and the *proper motion* of the stars measured; by combining the differences of position periodical during a year, the *distances* of the stars can be measured. It is obvious that perfect photographic records, which can be kept and measured again at any time, must be of the greatest value for these two great problems of astronomy.

2. *The Methods of Stellar Photography.*—Persons whose picture is taken are very liable to move if the time of exposure has some length; stars move continually, and the exposures for faint stars must be pretty long. However, stars move regularly, so that the difficulty can be overcome by moving the camera equally.

The camera used in stellar photography is the *equatorial telescope*. Its construction will be easily understood, though it will be lengthy to remind and explain some elementary astronomical conceptions. A common photographic camera, the image of which we observe with a focussing-lens, is scientifically the very same thing as a telescope. The ground-glass of the camera serves merely for the fixation of the focus; if the image on the ground-glass is sharp, and the ground-glass then taken away, while the focussing-lens is kept in the same position, the same sharp image is seen, only brighter. Of course, the astronomical telescope does not contain a ground-glass. The peculiarity of the *equatorial telescope* consists in its mounting; its object is to follow the stars in their daily motion.

Everybody knows that in reality the earth rotates every day round its axis, and revolves within a year round the sun; but the old abolished error to consider sun and stars moving round the earth is still easy for demonstration. The stars rise and settle like the sun, and rise again after twenty-four hours; in fact, they get some minutes ahead of the sun every day, and after a year these minutes have summed up to a full day. This is the reason that the midnight sky changes its aspect through the year, but is

the same again after the lapse of a year; it is the reason that for a thorough survey of the stars a period of about a year is required. The motion of the stars is perfectly uniform; they seem fastened to a huge sphere, which rotates round an axis of which one end or pole is seen in the northern hemisphere, while here far south the other pole is up. If an axis is put up pointing exactly to the visible pole, and that axis is revolved by a clockwork, making, like the sphere of the world, one rotation in twenty-four hours, it will be the same thing for appearance as if the sphere of the stellar universe had been invisibly fastened on that axis, and was revolved by it. Therefore if we fasten to that axis, the *polar axis*, in any way a telescope, pointing it to a star, that star will appear *perfectly stationary* in the telescope as long as the clock is going and the star is above the horizon. The fastening of the telescope is effected so that the polar axis carries a piece containing another axis, vertical to the first, at the end of which the telescope fits. That is the *parallactic* mounting of the *equatorial telescope*.

For common astronomical purposes the equatorial telescope has an eye-piece which can be slid over the field of vision for the observation of the images of stars produced by the front or objective lens; this sliding motion is effected by means of an exact screw, the *micrometer*, and can be measured correctly. In the *photographic* telescope the sensitive plate receives the images of the objective lens. As the photographic negative is a permanent record of what the astronomer sees, it can be measured and measured again at any time, and can be measured with a more perfect micrometer than that which can be attached to the movable telescope.

Stellar photography was first introduced into science by Professor Bond, of Cambridge, Mass., some twenty years ago, but it is Mr. Lewis Rutherfurd, of New York, who brought the methods to perfection, and constructed a photographic objective glass of eleven inches aperture, and about thirteen feet focal distance. This lens shows in a very high degree what is called difference of focus. It does not give a definite colorless image for vision, but it is perfect for photographic rays. When the focus has been ascertained approximately, it is correctly determined by photographing a star at different positions about it; the place of the most correct image is ascertained, and by repeating the trial, the focus of the lens of thirteen feet focal distance can be determined to the hundred and fiftieth part of an inch. Of course, all celestial objects have the same focus.

No lens can give an image of large field with perfect correctness; on account of the absolute correctness which stellar photography requires, the field used is very small, about one and a half degrees in diameter. Deficiencies even within this field can be ascertained by photographing an exact scale and comparing the picture with the original. A field of one degree and a half comprehends the well-known constellation of the Pleiades, or three times the diameter of the moon; it corresponds to the view of a human face at about forty feet distance. If the photographer would not be allowed to employ a larger angle of field in portraiture, he would want very big lenses, as the usual lenses at *forty* feet distance from the sitter do not give large heads; to his good luck people's faces are not so mathematically regular, and most are not at all fond of absolute likenesses.

This photographic lens, mounted in an equatorial telescope, which is driven by a perfect clockwork, gives, with short exposures, the images of bright stars as small round dots, only perceptible by an eyeglass; with long exposures the pictures become larger and easily visible to the naked eye. With long exposures their size depends finally on the intensity of the shake of the atmosphere, which appears to the eye as *scintillations* of the stars. With exposures of eight minutes stars of the *ninth* magnitude are photographed, that is, stars *ten times fainter* than the faintest which can be seen in a clear night, straining the naked eye; their pictures are very small dots. It would be very difficult to distinguish these small dots from particles of dirt on the plate. After the first exposure of eight minutes the telescope is slightly moved to another position, and a second exposure of eight minutes made, while the driving clockwork is going

and keeps the image steady in this second position. So each star on the plate has two images very near each other, the distance and relative position of which is the same for all stars of the plate. These double images can be easily found and identified on the plate.

When the telescope stands still, and the star-images in consequence move on the plate, bright stars leave a trail, as walking persons do in the photograph of a landscape. This trail is of great importance for the fixation of the direction east to west on the plate. With faint stars, by which no trail is produced, a third exposure serves for the fixation of this direction, made after having stopped the telescope for some minutes.

I have to come back to a point of great importance: the *adjustment of the driving clockwork.* The polar axis, though the telescope is perfectly counterbalanced, offers a considerable resistance to rotation; the clockwork, in order to move it steadily with perfect regularity, must be of particular construction, with spring escapement and capable of delicate adjustment. When the star-image moves during exposure the picture is no more circular, but lengthened. As in measurement, the centre of the picture is to be fixed exactly by the eye; it must be *correctly circular;* besides, the faintest stars capable of giving an impression during eight minutes' exposure will not give any impression if the image moves.

I said before that the stars move with perfect uniformity, so that in the telescope driven by a good clockwork their images are stationary. That is not precisely so by the effect of the *refraction* of the atmosphere. If we look obliquely on a surface of water, and see a fish, in the water, it is not really in the direction where we see it, and, shooting in that direction we will not hit it; to our eye it seems to be at less distance from the surface; to its eye we seem to be higher above the water than we are. The light coming from the fish is deflected when it passes into air, so that it makes a smaller angle with the surface outside than inside the water; the light coming from us makes the same way in opposite direction. So the light coming from a star is deflected by the atmosphere, and we make the mistake of the fish, the star seems to us always higher than it is in reality. This elevation of the stars by refraction is not uniform, while the stars are coming up higher and higher; it follows a complicate law; the amount can be calculated for all stars at different altitudes above the horizon, and for the latitude and height of the place of observation. The clock driving the telescope can be adjusted indeed only for *uniform* motion, but from the tables the time can be chosen for photography when the amount of refraction is nearly uniform for eight minutes, so as to allow a corresponding correction in the clock-rate. In this way the motion of the image can be reduced to less than *one ten-thousandth* of an inch during an exposure of eight minutes.

3. *My Work done with a Broken Lens.*— I went last year to Cordoba, South America, to take, at the National Argentine Observatory, photographs of southern constellations, under an arrangement made with Mr. Rutherfurd in New York. I expected to use the photographic lens, of eleven inches aperture, I have spoken of before, formerly owned by Mr. Rutherfurd, since some years the property of that observatory. On my arrival in Cordoba I found that precious lens broken; the back lens of the system was divided in two by a crack near the middle. My expedition seemed to be an absolute failure. The observatory has another lens of the same dimensions for optical purposes; it was tried, but it would not do for photography. If anything at all was to be accomplished, I *must make the broken lens work.* By using only one-half of it, the intensity of light would have been reduced too much for the intended purpose, so it was necessary to fit the two pieces again together. That was to be done in a small city in the interior of Spanish South America, which, indeed, does not offer many facilities for such work. Of course, the two pieces of the broken lens could not be stuck together; that might have been done with a small photographic lens, and for common purposes. A delicate adjusting apparatus had to be constructed, worked by screws. With the assistance of a watchmaker I succeeded in constructing such an apparatus with sufficient accuracy; each piece of the lens is kept in position and made adjustable by three pairs of screws.

Then the adjustment of the lens began. It could be done only by photographing a bright star, the defects of the picture had to be examined, the lens was taken out of the telescope, the *right* screw had to be tightened or slackened the *right* amount, and that operation to be repeated and repeated again. It was not a simple lens, the parts of which were to be adjusted; that would be relatively easy. It was the *concave* lens of a system. It had to be studied beforehand, what effects displacement and deformation of the parts of that lens exert on the shape of the star-image. While the lens had been in its perfect state, the parallel rays of a star were refracted by the lens into a regular cone, the point of which is the sharp focus, yielding a very small circular dot as the star's picture; taking a picture outside of that focus, it still appeared as a perfectly symmetrical circular spot, only larger. In the beginning the broken lens gave in focus *two* distinct dots with irregular prominences; the image taken half an inch outside of focus consists of two separate spots with irregular appendages. Each half of the lens gave its own image deformed by bending and pressure; these images had to be made by corrections regular and coincident. The pictures taken outside of focus are particularly fit to recognize the faults in the different parts of the lens. After months of wearisome trials and corrections the lens has been so far adjusted that the images are nearly perfect, and the lens works almost as well as in its former intact state, but with some decrease of intensity.

There was another severe difficulty which frustrated the success when the lens had been set right: the insufficiency and want of delicacy of the driving clock, which could scarcely be overcome.

The scientific results can be comprehended here in a few words. Stellar photography is of course particularly applied to condensed groups of stars. The northern sky has two prominent dense groups of stars, the generally known Pleiades, and Præseps, a group which appears to the naked eye as a luminous cloud; both have been photographed, and within a field of one degree and a half give respectively *thirty* and *forty-five* stars. The brilliant southern ring of the milky way, the glory of the southern heavens, has a number of much denser groups. I have selected and photographed near *thirty star-clusters*, of which the richest yielded, in the most favorable night, *one hundred and twenty-three* stars.

The Argentine government is going to provide for the Cordoba Observatory a new photographic lens from Fitz, in New York, and I have been asked to continue the work with that lens, which, of course, promises superior results.

## ON COLLODION.*

BY P. B. GREEN.

My method is to prepare plain collodion in quantity, say three or four pounds, more or less, as the nature and extent of my business may require. Plain collodion will keep any length of time. After making, put away to settle and for use.

My sensitizing solution I prepare as follows:

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| Alcohol, . . . . . | 1 ounce. |
| Iodide of Ammonium, . . | 32 grains. |
| Bromide of Cadmium, . . | 24 " |

Let settle before using.

*Collodion for Use.*—Take ½ lb. of plain collodion, add 1 ounce of sensitizing solution; shake well and use. This I call Collodion No. 1. I also prepare

No. 2.

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|---|---|
| Plain Collodion, . . . . | 1 ounce. |
| Iodide of Ammonium, . . | 3 grains. |
| Iodide of Cadmium, . . . | 1 grain. |
| Iodide of Potassium, . . . | 1 " |

No. 3.

| | |
|---|---|
| Plain Collodion, . . . . | 1 ounce. |
| Bromide of Cadmium, . . | 3 grains. |
| Bromide of Potassium, . . | 2 " |
| Bromide of Ammonium, . . | 1 grain. |

I make up ½ lb. of each kind for use.

Mix No. 2 or No. 3 with No. 1, equal parts, and you have a collodion to suit any subject. Nos 1 and 2 make a harsh collodion, and useful where strong contrast is required; good for copying Nos. 1 and

* Read before the Chicago Photographic Association, June 7, 1873.

3 make a very delicate collodion, and just the thing for white drapery and babies' pictures, giving plenty of detail if you have managed your light correctly.

I use all the bromide I can, in my collodion, consistent with strength and vigor. For views I use Anthony's negative and my No. 2, equal parts. I expose my landscape negatives longer, I think, than most photographers, and never want to see any pure white anywhere in my pictures.

## PHOTOGRAPHING DIFFRACTION GRATINGS.

At the last meeting of the Photographic Section, American Institute, New York, Mr. Daniel C. Chapman said: In the *Philadelphia Photographer* there is an article on "Photographs of Diffraction Gratings." The diffraction gratings are glass plates ruled with diamond lines of various widths, from four to twelve thousand to the inch, for the purpose of measuring the wave-lengths of light. The light passing through these gratings is cut up, and the vibrations come together again on the opposite side, producing by their interference a spectrum, the same as would be produced by passing the light through a prism, but with this difference, that in this spectrum the blue and the red have the same dispersion. I ruled a glass plate, and sent it to Mr. J. M. Blake, in New Haven, and he sent me a photograph which was very fine. It looked as well under the microscope as the plate I sent him. I then went to work by the ordinary photographic process, with dry plates, and after a few trials I succeeded in making plates as good as those made by the Edwards process. I have here one of these photographs. There were 6780 lines to the inch, the lines and spaces being each $\frac{1}{13000}$th of an inch in width. I coat my plate in the bath, and wash it sufficiently to remove the oily surface. I then put it into a strong solution of albumen—one part albumen to three parts water—and leave it there long enough to convert all the remaining silver into albuminate of silver; I then wash it, and lay it away to dry. Then I use a fifteen or twenty-grain solution of tannin; and put the plate away, and let it dry. I put the ruled glass plate in contact with it, put them in parallel sunlight, and expose instantaneously. The development is done with pyrogallic acid and acid silver. There must be a large amount of citric acid in the silver to prevent a deposit. It takes five to ten minutes to develop the plate. You will easily see the spectra on this plate. You cannot see the lines with the naked eye; but if they were not there you would not see the spectra.

## A FEW GOOD IDEAS.

BY E. Z. WEBSTER.

Again, do you have any trouble with blisters in your prints? if so, just tone your prints and throw them back into the water, as usual; then give them a bath in a strong solution of *alum and water*; from *that* to the soda (hypo). *Try it;* it stops blisters for *me.*

About that "south light?" Yes, I've had the mumps, the measles, the itch, the varioloid, *and a south light.* Just as fine work can be made by a *south* as by any other light; but unless the operator is patience, perseverance, and *piety* personified, the working of a south light will have a tendency to develop profanity.

Deaden your walls with some dark or neutral tint, or use reflecting (white) screens for dark weather, and absorbing (dark) screens for "shiny" weather. Manage to shut off the *upper* half of your *top*-light and the *lower* half of your *side*-light *when the sun shines.* You see, there is too much glare when the sun shines; the "bluing" and screens, or rather curtains, *diffuse* the light, and with light walls and reflectors there can be no proper shadows produced, consequently the face, the drapery, and all is *flat.* It is not very difficult, with the proper use of reflectors, and absorbers, &c. (according to *shady* or *shiny* weather) to obtain the desired light and shade upon your subject; but when it is constantly changing from cloud to clear, and from clear to cloud, *then* it sometimes occurs that the operator feels inclined to step into the dark-room, and—and *make a few appropriate remarks.* After all, the best way to work a south light is to put it into the *north* side of the building.

## THINGS NEW AND OLD.

BY R. J. CHUTE.

THE ALUM BATH BEFORE FIXING.

In the June *Photographer* D. H. Cross recommends a "method of eradicating blisters." It is no doubt effectual for that, and more besides.

Mr. George W. McCurdy, printer for Bushby & Hart, having been troubled with a softening of the albumen in toning, and partly dissolving in the hypo, saw the suggestion of Mr. Cross for blisters, and determined to try it for his trouble. The result has proved in every respect satisfactory. There is not only no softening of the albumen, but instead of the prints being dull and flat when finished without the alum they retain all their brilliancy and depth of tone by its use.

He uses the solution quite weak, say fifty or sixty ounces of water to an ounce of alum, and lets the prints remain in from five to ten minutes. There has appeared no disposition to crack, but a beautiful brilliant finish is imparted to the work.

## ASK QUESTIONS.

BY J. M. DAVISON.

Why not use "Sphynx" more, oh, ye photographers? If a man simply reads and does not ask questions he will stand a poor show to understand what he reads. Sometimes it occurs that a question presents itself at a time and in such a shape that a man cannot find a satisfactory answer by reference to his books, or, in other words, a person might get into trouble, and his books throw too little light on the subject, when by asking a few questions he will get the views of his co-workers, and thereby get out of a trouble which might cost weeks of unnecessary experimenting and much money (*which latter is well worth one's while to save in these later days*); hence, although I do boast of my library, I feel myself none the less justified in asking questions. Aye! even though they may appear simple to some, perhaps had they been situated in like manner they would not have appeared so simple; and again most of the books are written by men who give good formulæ, and give you all the landmarks as though their formulæ never got out of fix, and were suited for all climates and all the shortcomings of the weather, and pay but little attention to failures, their causes, and remedies. Now must you say that because you have a good library that you have all the light that can be given, and that there is no need for asking for further information. Certainly not, for there are many who entertain no thoughts of authorship, who can and will answer any question you may ask, and give you information that the author of your books probably knew nothing about. So my motto is to read, experiment, and ask questions, and then by way of variety I again read, experiment, and ask questions, and by so doing hope to learn. Am I not right?

So, Mr. Editor, you need not be surprised if you receive notes of inquiry from me every *semi-occasionally* asking for information. I care not whether it be simple or profound, I will ask it anyhow; laugh or no laugh, I want to learn all I can about my business.

I was just thinking what a fine figure I would cut in Mr. Anderson's studio in *Ni York Cittie*, plying him with all sorts of questions as to what this is for and what that is for; and why this is so and why that is so; and if it ain't so, why ain't it so? I bet he will say I am the most consummate bore, if not donkey, he ever saw.

I know full well it is hard for a country hunk who has never travelled to go into one of those fine palaces of art in your great cities and feel at ease. I know I will not be able to find a place to hide my feet and hands all at the same time, in fact I imagine I would feel just like I was yelped up and scraped at, notwithstanding all of which, if ever it is my fortune to visit your cities north and east, which I fully intend to do some time, I just intend to back my ears and go right in, and make myself as comfortable as the surroundings and circumstances will admit of, and then when I return to Texas I will try and show by my work why I asked so many confounded foolish questions.

If our friend comes this way we assure him of a hearty welcome.—Ed.

## TO MAKE A SMALL FIGURE ON A LARGE PLATE.

BY JAMES MULLEN.

A SHORT time since, having occasion to make a small standing figure on a 14 x 17 plate, and my ceiling being low back of the skylight, preventing my getting the desired height of plain ground above the head of the subject without showing the top of the background and ceiling, or finishing in vignette, which was not desired, I finally hit upon the following plan, by which I accomplished it perfectly, and thinking it might be of benefit to some others similarly situated, send you my method of working it.

I took a piece of straw board and attaching it to a head-rest, placed it a little above and in front of the lens, in such a position as to blend perfectly with the background above the subject's head; thus I obtained all the height desired. You will observe this method will admit of graduating the background, making it either lighter or darker, as may be desired, by simply changing the position of the board in front of the camera.

I inclose you a double card photograph, one exposed without the cut-off, showing the ceiling; the other graded, as above directed.

Whilst I am writing, let me tell you how I saved nine dollars through one item in "Anderson's Book." I had, until investing in said book, been in the habit of using a forty-five grain negative bath (our early impressions are often hard to eradicate; I remember when we thought it impossible to make a negative without a sixty-grain silver solution). I concluded to try Mr. Anderson's thirty-grain solution, and found that it not only produced better effects, but that it really required a shorter exposure than I had been giving.

As it took one and a half pounds of nitrate of silver to fill my bath-holder with a forty-five-grain solution, you will perceive I saved just half a pound of silver (by making a thirty-grain solution), which, at eighteen dollars per pound, was a saving of nine dollars.

I worked this solution for three months, only adding to it to keep up quantity, when my assistant accidentally dropped a plate into it, on emptying to remove which I tested and found it to be only twenty-four grains strong, but working equally well and as rapidly as when first made.

## THOROUGHNESS.

BY D. BENDANN.

THE modern system of "cramming" for certain specialties, and not studying our art methodically, has thrown a mass of uneducated men upon the profession, who superficially and glibly may be able to *talk* of the various parts they profess to be able to *fill*, but who *fail* lamentably when occasion calls for their display. We seem to be ceasing to practice, because we are ceasing apparently to prize the simple, but supreme virtue of *thoroughness*. When the tolerable comes to be accepted as readily as the excellent, the intolerable is near at hand. We are gradually confounding the man who does the most with the man who does the best; of course, the natural result is quantity, not quality. The above has been strikingly brought home to me, at various times, in endeavoring to fill places of various kinds in my business by those applying for them. After a few days, those most decided in their own ability as masters in the art I found not only to show their ignorance to perfection, but that those who recommended them had made statements which a lawyer would call entirely inconsistent with fact. As artistic reasons could not prevail with a man who does not even know the A B C of art, I generally contented myself with giving him my blessing, but not my recommendation. Another grievance I have grievously to complain of, is this: many of our prominent photographers are either so good-natured or so unreflecting as to give an A 1 copper-fastened recommendation to almost any one applying for it, thus entailing troubles and tribulations on those unfortunate wights who pay any heed to it.

Criticism is necessary and useful to both the public and ourselves; hence I make no apology for any that I may perpetrate. At the same time I am ready to join protest with every and any one who has a laudable de-

sire to see our beautiful art make progress, against being misled by unwarrantable critics, whose untenable opinions are launched into print with the boldness of scribes, and who prove themselves ignorant of the first elements of the art which they profess to teach.

## ART AND PHOTOGRAPHY.

BY WILLIAM HEIGHWAY.

THE day is coming for photography when the rules of art and laws of composition will have their proper place in the estimation of the workers of the profession, and it will become necessary for the student to have a taste for them and a determination to make his picture in accordance with those rules, as much as a specimen of skilful and beautiful manipulation. It is already to be seen that a photographic picture is not alone judged by its merits as the work of the dark-room operator, but to an increasing extent as it evidences artistic skill in the pose and the lighting.

Without daring to prophecy the extent to which art may be applied to photography, to what point of excellence it may ultimately attain, there is no doubt in my mind that there is an artistic eminence possible for the work of the camera yet unthought of. We have not certainly, in our lenses and chemicals, the facilities the sculptor and the painter possess in the chisel and the brush, wielded by genius-directed hands. To us it is impossible to make material alterations in our subjects, to catch fleeting expressions, or to impress little characteristics on our sensitive plate, but by reason of all these drawbacks under which we labor, should we call to our aid all the arts of the painter to make the most of our subject by a strict and judicious attention to the rules of art in posing and lighting.

Many among us think that "sharpness" (a quality which, carried to excess, is positively painful) and a rendering of detail with absolute and microscopic minuteness is all that is necessary in the photographic picture to constitute perfection, and the straining after this effect leads us to ignore the higher power of artistic arrangement.

All my readers must be aware that the applicability of the laws of composition are greatly curtailed by the comparatively limited adaptability of the photographer's tools; that with them in their present state of development, it is only possible to reproduce the objects of nature as they are presented to them, but then the artist's knowledge is brought into requisition to mould the object to present an aspect conforming to the rules of art. A sitter comes into the gallery and languidly throws himself into a chair; what can be more natural and easy? Just the time to take his picture, says the uneducated one; now you have the chance of getting a graceful position (because natural!) and repose. Natural enough, but not artistic. Here is field for the artist. His practiced eye leads him to select the beauties of nature, and the same knowledge in the photographer directs him in his selection and gives him the faculty to ascertain in what these beauties consist and aids him in the choice of a subject; and the laws of composition assist him in the arrangement and the management of light and shade.

To say that the photographer has no control over his subject would be to say one photograph is no better than another, while no one can deny that not only has a great advance been made in this direction in the art within a few years, but that the work of a few men stands forth brilliantly from the general mediocrity. The same object represented by different men will produce different results; not that there is any difference in the instruments and chemicals used, but because there is something peculiar to each man's mind which is reproduced in the work of each, stamping on it an individuality as marked as in the productions of the chisel, the brush, or the graver. Admitting this (and who can fail to do so?) it follows that original representation of nature is possible to the photographer, and that the thought of the artist student stamps its impress on his work, the result presenting a marvellous contrast to the caricatures perpetrated by some, by means of our beautiful art. It will be found that it is not only the artist's eye that demands good artistic work in photography, but that the uneducated and ignorant

feel a pleasure, though they cannot recognize the cause, in the sense of fitness and beauty in the art composition which is lacking in the work of a bungler. It behooves us then to study to make our pictures works of art as well as perfect specimens of manipulation.

## A VOICE FROM SOUTH AMERICA.

It is high time we should fully recognize the fact, that what the public expects of us is not so much mere excellence of chemical manipulation or sharpness of the image, as a pleasing and natural picture. Probably all photographers have, at some time of their career, been confronted with pictures which seemed to them to embody all the vices a photograph could be guilty of, yet which its possessor seemed to look upon as inimitably good. We attribute this infatuation, and are justified in so doing, to a hopeless ignorance of art, or to the curious habit which many have of underrating anything new, when comparing it with what they have long looked upon as their standard of excellence. But in this we are presumably not quite impartial. If we will carefully compare their picture with our own more labored production, we will, perhaps, be able to discover why it is that, in spite of our advantage of good lighting and superior workmanship, the poor picture finds the most favor. *It is truer to Nature.*

Our failure generally lies in that we attempt too much. A brilliantly concentrated and weird light, with its attendant heavy shadows, is obviously unsuited to an innocent young girl. However meritorious as a work of art the resulting picture may be, we are forced to admit that it is not *true to Nature*, that it gives a severe, stern character to the face, which is utterly at variance with its real and everyday expression.

Look at that picture by Sir Joshua Reynolds ("Little Miss Bowles and her Dog"), which has recently been reproduced in the *Graphic*, and fancy that sweet face in a "Rembrandt" light, and then ask yourself whether Sir Joshua would have so painted her.

Turn now to that picture of the dead Emperor at Chiselhurst, and you will confess that nothing could have been more appropriate than that same weird and concentrated light. It saved the picture and stamped its maker a true artist.

But our principal cause of failure lies in unskilful posing. All our subjects are not heroes, nor should they be made to look like such. A quiet and unobtrusive man is made to look almost like "Ajax defying the Lightning," and we wonder why the picture is not more appreciated. Unfortunately the gentleman himself is unable to give his reasons for not liking it. He may be flattered at being made to look so bold and handsome; but he intuitively feels that there is something incongruous and out of place somewhere, and to illustrate his meaning shows us some villanous production of a village photographer, and informs us that *that* is the sort of picture he wants. "I went in with some friends," he says, "not intending to be taken; but, by Jove, it's the best picture I ever had." We have all heard it and felt how hopeless was the effort to make him understand that his "gem" was but a bit of worthless quartz.

If there are "lessons in stones," rest assured that there are also lessons in every photograph, however worthless the picture may be from a professional point of view.

It is true that our difficulties are attributable, in a great measure, to the sitters themselves. We want them to be natural and at ease, and we know that to attain that object they must be severely "let alone." But they will not let themselves alone and be natural; but insist on sitting for their portraits with a certain straightening of the spinal column, which no amount of argument can relax; and an awkwardness and rigidity of the hands, which no eloquence can put off its guard, and no drapery can conceal.

Such people, the writer of this article, strange as it may appear, has found it his best plan to *tire out*. The stiffness of position was in an inverse ratio to the number of times they were taken; and where the first picture was awkward and affected, the seventh was natural and unconstrained.

Natural positions are, unfortunately, not always graceful ones. But, mark this, just

as the landscape painter leaves out some hideous fence or unsightly building, or barren patch of ground, which would otherwise mar his picture, and the novelist and the poet make no allusion to the grovelling and petty details of their heroes lives, so must we in our pictures cultivate the taste which sees and the tact which overcomes the glaring defects which continually confront us in our daily work. Photography is so faithful a servant and so closely searches out and holds up to view these defects, that our art must ever be to learn what to leave out more than what to put into our pictures.

Our sins must lean more to *omission* and less to *commission*. Statuettes, vases, and carved tables in one part of the picture tend but to render offensively vulgar an otherwise merely commonplace looking individual in another.

Do not think I propose to discard altogether these valuable accessories to photographic art—valuable only when used with great discrimination and judgment.

That a picture should be a little "moved," is by no means the greatest defect it can possess; that it should not be quite "sharp" will not altogether condemn it; that it should even be lacking a little in detail and brilliancy, we may overlook and forgive; but that it should be stilted, stiff, and false to Nature is unpardonable.

J. J. V.

Montevideo, S. A., April 15, 1873.

## "RETOUCHING."

Being greatly interested in the controversy, *pro* and *con*, on the vexed question of "retouching," I am going, woman-like, to have my "say" with the rest!

From my observation of a year and a half in this direction, I am ready to declare it one of the greatest blessings of the nineteenth century!

Now, it is some comfort for a fond young mother to bring her baby to have its picture taken; when, by retouching, its little frowning, puckered-up forehead—invariably occasioned by the unaccustomed light—is cleared up and smoothed out, and it looks like the cherub it really is, instead of the abominable crosspatch it would have appeared but for this aid.

Now it is some satisfaction to poor Johnny, whose skin is as variegated with freckles as a turkey's egg, to have his "face tooken" and give to blue-eyed Susie at school; for, while she is gazing at the nicely retouched carte, "that looks just like him!" with wide eyes of admiration, the big boys can't sniggle and snicker around her, and call him *that* "old speckle face!"

Now, it is possible for Matilda Jane, gentle and patient, but with, alas! a crooked nose, to sit for photographs. A skilful touch of the merciful pencil has straightened her nose, and the little girls, as they secretly smuggle the picture across the school-room, nudge each other, and whisper behind their spelling books, "Lor! Matilda Jane's nose *aint* crooked!" Sensitive Matilda feels of her nose, looks at her pictures, and gives them away with such prodigality that she soon returns for more.

Now, when Arabella sits for cartes de visite, and says, "Pl-e-e-e-a-se make them as nice as you can!" it is some pleasure to her to distribute them, when the scarcely as yet discernible wrinkles that are just touching her fine face, and the lines down the side of the mouth, that show so hideously in the untouched photograph, are softened down to just a trace in the pencilled picture, making it really the most truthful likeness of the two. And should she send one to Squire Squeers, in answer to his matrimonial advertisement, and he become so enamored of it as to propose on the spot, and come right on to marry and,—"Thunder!" shall he, therefore, indict Camera as a swindler, for making photographs appear some few years younger than the subjects? Rather let him go down upon his knees and bless the beautiful art that brought him the acquaintance of an estimable woman whom, otherwise, he would never have had the good fortune to meet!

And when Judge Sawkins comes in and exclaims in a Cromwellian spirit, "Take me as I am, wrinkles and all!" Mr. Camera, if he knows his "biz," will make his best bow, and, Talleyrand-like, respond, "No art can add to that face!" and hand the negative to his retouchist, with the di-

rection, "Here, this old chap thinks he is handsome enough without working up; a general softening will do!" and it comes out a splendid likeness. The judge is delighted, and orders six dozen. The happy recipients of his cartes are immensely gratified, put them in their best albums, show to all new-comers, and all with one accord exclaim, "How wonderfully the judge holds his age!" But should Camera be of those who see, not only "through a glass darkly," but through one of a decided emerald tinge, and give the judge his photographs from the untouched negative, just as it was taken, with every line exaggeratedly harsh, every shadow intensified,—"Bless me! what poor pictures they *do* take here!" he thinks, and, like Podsnap, "puts them behind him," with other unpleasant memories, and goes across the way "where they take better ones!"

But the retouching that is indispensable for babies and children, and admirable for Arabella and Judge Sawkins, I can hardly approve of for old Grandfather Sniffles. I really don't think it quite the thing to take his negative, and work out all the wrinkles, fill up the shadows, puff out the hollow cheeks, build out the sunken chin, scratch open his eyes, and make his photograph appear by some odds younger than that of his youngest grandson. No, no! venerable old age should be sacred from too much retouching!

Retouching is yet to become perfected. I rejoice to think that in another decade we shall probably work up negatives as people would *like* to look! that we shall have a stately row of marbles representing all types of beauty, from the strictly classical to the latest fashion-plate pattern; from the Apollo to—to—I had almost said, that most usual model of male beauty, the tailors' block. And, after the negative is taken, just as he would speak of frames, Mr. Camera will ask, directing attention with a graceful wave of the hand toward the statuary, "And what style of beauty will you have it worked up in, Madam,—or, Sir?" The tall, queenly lady with a square brow, clear arched nose, and firm set chin, will of course want her own nose left off, and a little mite of a saucy stuck-up nose put on instead, as, "They are so bewitching!" while the piquant, curly-pated little chit, with the dignity of a small kitten, will order the majestic lineaments of Minerva. And the men—oh! how my pen falters. Yet I am about certain sure that all the very small men will want faces after the Roman gladiators; and the large magnificent men, with strong commanding features, will unanimously approve of the infantile countenance of that most petite of dwarfs, and "cunning little darling," Admiral Knox!

Yes, from the objections people daily make to their own faces, even with the most flattering aid of the retouchist, I am confident that *this* will be the "last new dodge" photographers will be compelled to accept, in order to keep strides with the demands of a progressive public. Great is Photography, and the "retouchist" is *its profit!*

A. B. D.

Buffalo.

## EXPLANATORY—THE BEAUTIFUL IN PHOTOGRAPHY.

BY H. H. SNELLING.

Several years ago I heard of a man who was grievously vexed with an obstinate sore. He had tried many physicians and spent much money for its cure, but instead of getting better rather grew worse. Driven to despair he saw only death, a lingering death before him. In this strait he was recommended to apply to an Indian doctor who had become celebrated for his success in the treatment of such cases, and, as a last resource, he went to him. The Indian immediately built a large fire of logs, and when he had accumulated a good supply of lively coals, he directed his patient to strip and lie down before the burning logs. This done, the doctor took a large shovel in his hand and danced around the man chanting an incantation. When he had sufficiently distracted the attention of his patient he suddenly cast a shovelful of the hot coals upon the sore, of course burning the man severely, and causing him to leap to his feet instantly. He jumped about the room in agony, vociferating and gesticulating vio-

lently, and heaping all kinds of maledictions upon the head of his tormentor. The Indian looked on unmoved by his abusive language and threats until his patient had exhausted himself, when he replied, "Cure burn easy." Although the man had no cause at the time to be pleased with his treatment, he was truly thankful and grateful for the final result. Just so is it in every case where disease requires unusually severe measures for its eradication. The physician not only receives no thanks, but the most odious epithets are lavished upon him until his practice has proved his wisdom.

It is equally at first a thankless office for a man to assume to correct the errors or ignorance of his fellow-men, or even to point them out; nor will he assume it without hesitation and reluctance; in fact, nothing save an overpowering desire to benefit others will or can induce him to run the gauntlet which he knows lies before him. Now I never intend to place myself in this relation to the photographic community. I rather desired to advise as a father does his son. If I have appeared more like the former than the latter, it is because I could not help it, and I would say to your readers, as the preacher said to his congregation in his initiatory sermon: "Find all the fault you please with my doctrines, but do not blame my manner." The reason is obvious. I take not to heart differences of opinion, nor the manner of expressing them, but I am not singular in objecting to wrong motives being attributed to my words or acts, or to the application of unseemly epithets, particularly when they partake of the slang of Billingsgate. Is friend Heighway answered? I have no heartburnings towards him. He has been among the most gentlemanly of those who have drawn swords against me. Neither do I grieve over the opinions in this connection of "any other man," and as it is very distasteful to me, I hope I shall not be obliged again to refer to myself, explanatory or otherwise, while I am a contributor to the pages of the *Philadelphia Photographer*.

I do not know but that I may again touch upon tender ground in the assertion that the *beautiful in Photography consists in the accuracy with which it renders natural objects*, but I must make it. The fact that thousands of photographs are yearly foisted upon the public, falsifying, as it were, this proposition, does not actually contradict it. For this reason, if we take the examples daily before us, we may see two pictures of the same head taken by different photographers, in the same position and from the same standpoint. I am speaking of *pure* photographs. One will be an accurate likeness, full of detail, sharp without harshness, finely modulated in light and shade, animated in expression, and in every way indicative of the physical and mental character of the individual; while the other will possess none of these qualities. Examine the last without seeing the first, and photography is condemned; while the first, under the same circumstances, would elicit exclamations of surprise and admiration at its beautiful results. Now take a magnifying glass and examine both pictures; we will then learn that the difference consists in the method of manipulation, and in the state of the collodion film.

Examine two landscape pictures of the same view, taken by different men from the same standpoint; one is rich in detail, without flatness or unseemly deep shadows, while the other is nothing but masses of shadow and splashes of light. The first is true to nature, the last is not. The first would be called beautiful by a person in whom the sense of the beautiful is inherent; the last horrible. We have had just such examples before us, with several men and women of taste examining them, and there was not, nor could be, any difference of opinion in regard to their merits. The question has often been asked me, what is the cause of such variance in photography? My answer has always been, it is in the head and hands of the men who work it. Having eyes, they see not; having understanding, they understand not; and having hands they do not know how to use them.

It is written that artists know how to soften down the harsh shadows of the natural view, and take other liberties which render their pictures more pleasing and artistic, and some say more truthful to nature, which photography cannot do, and

therefore they are more beautiful. I had the opportunity yesterday of looking upon two pictures of a friend. The one an exquisitely executed line engraving, the other an equally exquisite photograph. They are both of what is called cabinet size, and hang beside each other, one the copy of the other. In both was the same sharpness of outline, the same detail, the same beautiful modulations of light and shade, but this difference, the photograph (untouched) was a perfect likeness, exhibiting the *long* head and *smiling* face (habitual) of my friend, while the engraving gave him a broad, short face with stern aspect, which, I venture to say, no person ever saw in the countenance of the original. The engraving was an exceedingly fine one, truly artistic, but it was not truthful, and therefore not beautiful.

As I looked "on this picture and then on that," I felt a satisfaction that in this instance at least, photography had triumphed over the art of engraving; although I have seen it do the same over other branches of fine art Now I say (don't take it dogmatically) that if photography can render nature accurately and produce beautiful results in one instance, she can do so again and again, and do so more uniformly than can the painter, in the hands of the right kind of men. If the public would refuse all the trash that is offered, the truthful and beautiful in photography would be the rule and not the exception; and that man who boasted that he could "sell more bad photographs than good ones," will be *non est.*

## PHOTOGRAPHY IN MEXICO.

Some months ago we announced the departure of our friend Mr. B. W. Kilburn, of Kilburn Bros., Littleton, N. H., with his camera for Mexico. He made a safe passage, and after several months of hard labor he sends us a series of prints from his negatives, which are most interesting and unrivalled in their excellence. As examples of photography our friend himself never excelled them, excellent as is his work. As views, we thought that only Egypt contained such picturesque subjects. Each picture is a pictorial treat—a gem in itself. We have massive ruins of ancient cathedrals, and fountains, and idols, and prisons, and temples, and sacrificial stones; strange street scenes, inhabited caves, orange groves, palace gardens, thatched cottages, clumsy buildings of adobe or sunburned brick, cactus groves, groups of natives, mountains nearly twenty thousand feet high whose summits are perpetually covered with snow, strange remains of Aztec cities, native characters, such as the mendicant, the muleteer, the flower girl, the marketmen, &c., all as strangely fascinating to the American eye as the strangest views in Egypt or Arabia. They seem to us as coming from a country never heard of before, and now for the first time exhumed by the camera. Yet there are good portrait photographers there in Vera Cruz and the City of Mexico, and the *Philadelphia Photographer* has found its way there for several years. The Kilburn Bros. have wisely withheld these views until they could supply them quickly to the trade, which they are now able to do. They issue a special catalogue of them of some 140 subjects, and get them up very tastefully on a peculiar mount. They have also taken the wise precaution to copyright them. We wish them the great sale their enterprise entitles them to.

As a sample dozen we would recommend Nos. 1191, 1081, 1082, 1086, 1087, 1088, 1107, 1144, 1145, 1154, 1076, and 1204, and all the rest are just as interesting. Dealers undoubtedly will find great sale for them.

## PHOTO-MECHANICAL PRINTING.

### HISTORICAL.

Photo-mechanical, or rather photo-*collographic* printing, has now assumed so much importance that it will be well to place together, under a single heading, the historical facts connected with its development.

As long ago as 1839, Mr. Mungo Ponton, a chemist of Bristol, England, announced the fact that sized paper, treated with a bichromate, was subject to alteration by the action of light, the effect of which was to render insoluble the sizing or gelatin

(glue) which the paper contained. It will be seen that herein lies the germ of all photo-gelatin processes. It is clear that after this publication it was only open to others to discover or patent particular applications, or particular methods of application of this principle. Accordingly we find that a variety of processes have since then been from time to time worked out, all depending on this principle; such for instance as *carbon printing*, *photo-galvanography*, *photo-zincography*, *photo-lithography*, *Woodburytype*, &c., and *photo-mechanical* or *photo-collographic* printing.

In *carbon printing* each picture is itself a sheet of gelatin of varying thickness having coloring matter imprisoned in it, and each individual impression is produced by exposure to light. In *photo-lithography* and *photo-zincography* a transfer is made on stone or zinc, respectively, by means of gelatin. In *photo-galvanography* a sheet of gelatin having the parts *not* acted on by light, swollen by water, is made to serve as the basis of electrotyping. In the *Woodburytype* a sheet of gelatin, from which the parts not acted upon by light have been washed away, is used as the means of obtaining ,by hydraulic pressure a metal mould. This mould is filled for every impression with gelatin, containing coloring matter, and the print is really an embossing, so to speak, of colored gelatin on the sheet of paper. In *photo-mechanical* or *collographic* printing gelatin itself is used as the printing form; it is with this last mode of working that we have now to deal.

In 1855 M. Poitevin, a French engineer, discovered that bichromatized gelatin when acted on by light possessed the properties of a lithographic stone, and might be used as such. He announced that gelatin in presence of a bichromate was converted by the action of light into a substance of a waxy or resinous nature, which took lithographic ink freely, but refused to take water. He secured patents for this discovery, of which the English one is dated December 13th, 1855, and contains the following description of his process:

"I apply upon the surface which is to receive the design one or more layers or films of a mixture of equal parts of a concentrated solution of albumen, fibrin, gum-arabic, gelatin, or similar organic substance, and a concentrated solution of a chromate or bichromate of potash, or of any base which does not precipitate the organic matter of the first solution. This single or compound layer or film is then dried, if the photographic impression is to be produced by contact; or it may be used in a moist state when the photographic impression is to be produced in the camera obscura. In producing the impression by contact the surface is covered with a photographic-negative picture or an engraving, or other transparent or partially transparent object or screen, and then exposed to light as in the ordinary photographic process. After a sufficient exposure, if the surface has become dry, or has been used in a dry state, it is moistened with water by means of a sponge, and while moist the greasy ink or matter is applied to the surface by a ball or dabber, or by a roller or press, or otherwise, and it will be found to adhere to those parts only which have been affected by the light. The print may be retained on the surface on which it is first produced, or it may be transferred or printed upon paper or other suitable material, and the operation repeated."

On account of the difficulties surrounding the working of this discovery it did not come into use, and the patents were abandoned. Here then was a particular application of Mungo Ponton's principle, and it is clear the ground was covered so far that subsequently only particular methods of application of Poitevin's process could be invented or patented.

MM. Tessie du Mothay and Marechal, in France, were the first who succeeded in introducing a practical form of photo-mechanical printing, about 1863 or 1864. The novelties introduced by them consisted in the substitution of trichromates for bichromates, and in the addition of pyrogallic acid to the gelatin film. This method was worked by them with considerable success, and is continued, we believe, by their successor, M. Arosa, to the present day. (See *British Journal of Photography*, vol. 15, p. 361.)

Subsequently an Englishman by the name

of Courtenay, proposed the addition of other substances, such as hyposulphite of soda, for the purpose of modifying the condition of the gelatin.

Still later in the list we find Herr Albert, of Munich, who followed in the publication of pictures printed from a gelatin surface. His patent for this country is dated November 30th, 1869, with a reissue bearing date April 11th, 1871. The novelties introduced by him consisted in the use of glass plates as supports for the gelatin printing surface, and in the method of attaching the gelatin printing film to the glass plate by means of a cementing film of gelatin previously spread upon the glass, and rendered insoluble by light passing through the sheet of glass from the back; thus forming a composite plate, consisting of three parts mutually dependent, viz.: a printing film of gelatin, a cementing film of the same material, and a glass base. His process was elaborately described in our last volume, June number, page 204, by Prof. Towler, and his full claims, as contained in the reissue of his patent, are as follows:

"I claim as my invention—

"1. Preparing photographic plates for printing with fatty inks by subjecting a film of chrome-gelatin, or other suitable material, spread upon glass or other transparent or semi-transparent substance, to the action of light, or otherwise hardening the film to render it insoluble upon the surface in contact therewith, and preserving the outer surface in a sufficiently adhesive condition to unite with a second or sensitive film to receive the photographic image, substantially as herein set forth.

"2. The employment of a fixing or cementing film to unite the sensitive film to the glass for printing in fatty inks, as substantially set forth.

"3. The employment of glass plates for the printing of photographic pictures in fatty inks, substantially as herein set forth."

In 1870 an American patent, dated November 22d, was issued to Emil Rye, of Copenhagen, Denmark. In this the main novelty appears to consist in the addition of certain gums and resins to the gelatin. The claims are for the special form of working described, and for certain specified apparatus used in connection therewith. This method is practiced by Messrs. Ohm and Grossman, of Berlin, under the name of "lichtdrück."

At a later date Herr Obernetter, of Munich, published a method of working, of which the novelty consisted in dusting on to the film of gelatin, after exposure to light, certain fusible powders. The plate was then subjected to heat, which fused these powders, which in their fused state were intended to make the plate durable. It does not appear that any step has been gained by this method, which would hardly seem to be practicable; yet the example by Herr Obernetter, which appeared in our last volume, was excellent.

Two American patents for improvements in photo-mechanical printing, and in printing forms, have been issued to Ernest Edwards, of England, dated, respectively, December 10th and December 31st, 1872. The two patents contain together nine somewhat elaborate claims, the greater part of which had been previously patented in England in the years 1869 and 1870. Without going into these in detail it may be stated that they cover the essentials of what is known as the heliotype process (and of which a description is given on another page). Beyond the use which is common to all, the processes of the principle enunciated by Poitevin, it would appear that this process has no single detail in common with the other methods. The main points covered by the claims contained in these patents are: 1st. The hardening of the gelatin while in solution, and during the preparation of the film, by the addition of alum or other substances tending to produce insolubility of gelatin. 2d. The removal of the printing films from the surface on which they are prepared. 3d. The more convenient exposure of the films to light, and their attachment to metal or other plates for greater safety and convenience on the press. 4th. A special kind of inking-roller. 5th. The use of two or more inks of different densities on the same plate. 6th. A method of producing an india or other tint. 7th. Methods of printing in

colors. 8th. A printing form of gelatin complete in itself, without a base, as a new article of manufacture.

This last is so important that we append the exact words in which the patentee states his claim:

"The forms thus produced are of such a thickness and of such a degree of consistency throughout, that they possess a body and strength sufficient to permit of their being lifted while the photographic image is being produced for the purpose of examining the print, rolled up, or handled in any manner, without injury to the plate or defacement of the image or engraving thereon.

"Having described my invention, what I claim as new, and desire to secure by letters-patent, is—

"As an article of manufacture, a gelatin printing-form complete in itself, without a base, which has the printing image produced upon it by means of light, and which can be used in the printing-press for a number of impressions, put away, and at subsequent periods used again for an additional number of impressions."

This brief sketch affords, we believe, a fair *résumé* of the various steps of development in the art of photo-mechanical printing, and indicates all the essential points which have been covered either by patents or by publication. Other modifications have been from time to time proposed, but they have been of so slight value as not to render it important to chronicle them.

## ART STUDIES FOR ALL.

### IV.

(Continued from page 216.)

25. We shall only attempt to explain the fundamental principles of perspective in this place. Instruction in it may be had from our great teacher, Nature, every way we turn. Although the human body is the most complicated of God's creations, yet it is not a complicated subject for drawing, as its "distances and dimensions" are not relatively great, and we have but little room for the application of the principles of perspective to it when photographing it. But in arranging the accessories around and about it, photographers make some sad breaches of these principles.

26. The application of straight lines is essential to the correct representation of objects as they appear to us in nature, because everything is made visible to us by light, and light moves in straight lines.

27. In nature the horizon line is found to be just the height of the eye, because the earth is under it and the sky above it, and consequently the two meet exactly on a level with the eye. In arranging your pictures you should first decide this point, for it controls all the other lines in your composition, and never change it after it is once chosen for a picture.

28. Too much attention cannot be given to the internal and external lines of your picture, for it is through their medium that the eye is led from one part of the picture to another. There is no arbitrary rule for their regulation except that they unite. If twenty men desired to move a great body, while they might not all be able to seize it so as to pull or push it in the same direction, yet they would all so apply their strength as to unite in moving the object towards the desired spot, there would be a harmony of purpose and of action. So should the lines be in your pictures.

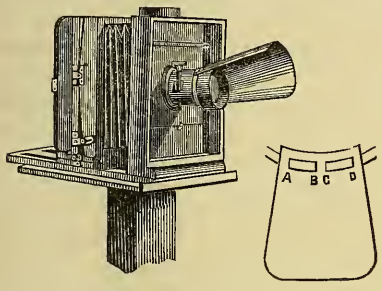
29. These general laws of harmony must guide you in your choice of line, and you must choose according to the nature of your subject. And whatever character of lines you choose should pervade the whole subject.

30. You would not pose an old lady with a long sweeping trail, neither would you place a full-grown man upon a chair with one leg curled up on the chair and the other over it. Neither would you give a child the position of an aged grandparent. No rule can be given you, for each subject would change the rule if there was one, but the *principles* we have laid down will aid you if you will take them up and practice them. There is the wild sweep, the majestic *go*, the gentle repose, and the actual lack of any sentiment whatever, which pervades the work of far too many. Use them in the right place, *study* about it, and you will find new delight in your work. Moreover, if you produce a good thing once, then you can do it again, for you will know *why* it is good.

## Device for Shading the Lens.

BY J. A. W. PITTMAN.

THE thought occurred to me that a little device that I have been using to shade my lenses while operating would prove useful to some that have not a more expensive and complicated shade. It is simply a cardboard cut to shape, and fastened to the brass-




work. The drawing, I think, will explain it. I also send a card cut in shape as I use it. I use for my 4-4 and extra 4-4 lens an 8 x 10 cardboard, cut as indicated, and darkened on the under side; or better, paste a thin piece of black cotton velvet on the under side, with an elastic band one-half or three-quarters of an inch wide run through the slots A, B, C, D, and cut the proper length, and sew the ends together, bending the card into a curve and slipping the elastic over the head of the tube where it can be easily adjusted.

## SAVE THE DRIPPINGS.

BY J. WOLFENSTEIN.

SIR: In your valuable journal, the *Philadelphia Photographer*, as well as in other publications, I have often found new inventions and new hints to prevent the silver drippings from the sensitized plate penetrating the wooden work in the plate-holders, but I have seen none similar to the manner by which I have for years protected my holders from the slightest trace of silver. There is certainly but one way the most economical, and that way is the best. It may yet be new to many operators that the silver-dripping from the plate does not come from the collodion side, but from the plain side. Thus, it is immediately clear, that if *that* side can be wiped off, the holders are protected. The most commodious way to do this is as follows:

Place on a shelf, in the immediate vicinity of your bath, a common saucer; when removing your plate from the bath place it in an inclined position with the lower corner in the saucer, the upper resting against the wall, which is varnished for that purpose. Hold the plate in this position with the left hand, while with the right one you take a piece of thick cardboard three inches square, and scrape the silver down into the saucer. Instead of cardboard some other contrivance might be employed. I have tried soft india-rubber half an inch thick, but that absorbs a part of the silver, and finally becomes hardened on the edges. Cardboard lined and varnished answers admirably, and is perfectly harmless. The saving of time, silver, and plate-holders by this mode is so great that no operator, who loves economy and cleanness, can fail to approve it. The operator will be astonished to know how much silver he has been wasting when he adopts this plan, and after the first busy day's work he empties the saucer into the filter. From one mammoth plate alone he saves from one-half to one whole ounce of solution. He will find no more need of cleaning and varnishing the holders every evening, and no need of draining, and time wasted thereby. *My* plate-holders have been in constant use for four years, have never been varnished, and are yet as correct in focus, and free from silver-stains inside, as when new.

LOS ANGELES, CAL.

## HOLMES'S AUREOLOTYPES.

YOUR readers may find use for the following mode to copy pen-and-ink sketches, drawings, and engravings, also for reproducing copies from unmounted photographic prints that are sufficiently transparent for the object, dispensing with the camera and glass negatives altogether.

To do this, insert the original to be copied in the printing-frame with the regularly prepared silvered paper, albumen or plain, and expose to light in the ordinary way until the impression is made sufficiently

negative; then wash, tone, and fix, and when dry, proceed to print from the negative impression by contact, which produces a fair positive, enough so to make the mode interesting and useful.

For reproducing large copies great saving of time and expense is acquired.

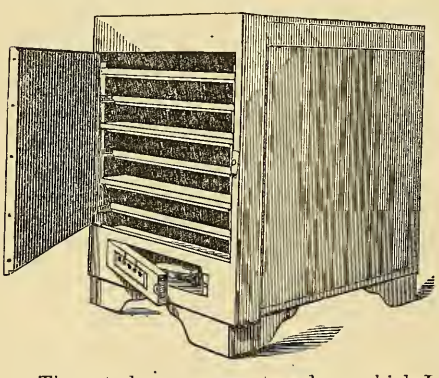
I have named the pictures done by this mode the "Aureolotype."

If you consider them of sufficient importance to make mention of the mode in the *Photographer*, you are at liberty to do so.

S. A. HOLMES,
596 Broadway, New York.

## Shoemaker's Fuming Box.

THE subject of fuming has not occupied any attention lately, and perhaps improvement in that direction has generally been overlooked; or, as I have seen, many are using the first method that was taught them, and consider it good enough.



The cut above represents a box, which I offer to the fraternity. As I do not intend to patent it, I will feel sufficiently repaid if I hear of any adopting it in their establishments.

I claim as an improvement an entirely novel method of causing a perfect and even distribution of the ammonia fumes upon all parts of a sheet; so that, if properly silvered, the sheet will give a perfect and even print.

We have, in Mr. Moore's establishment, used for nine years a box which conveyed the fumes from the space in the bottom through holes into the fuming chamber, the sheets standing upright. But the objection is, that part of the sheet nearest the bottom is stronger than top or centre, which, when printing as we do, in whole sheets, invariably show a decided difference in the two ends.

To avoid this, and cause a perfect distribution of the fumes, I have constructed the above box. We have used this box constantly for nearly three months, and fumed hundreds of sheets in it, and can with confidence offer it as doing everything I claim.

The amount of ammonia is no greater than formerly used; the time of fuming is increased two to three minutes. In all the old boxes in which no draft is used, the paper becomes damp or limpid and quite decomposed on a warm, sultry day. In this box the paper remains perfectly dry, no matter how long fumed.

There is another advantage: when the box is opened, after fuming, it does not leave fumes into the room.

A sheet of paper is tacked, or fastened by the American clothes-clips, to the bottom of each slide; another is laid on the top. When all are filled, pour ammonia into the dish below, close the door, open the draft-slide, and the fuming goes on. The box we are using, and from which the above was copied, is intended for full sheets, 18 x 22.

The dimensions of inside (fuming chamber) are as follows: 26 inches deep, 19 inches wide, and 17½ inches high. The slides are 19½ inches wide, 24½ inches long. The space below, for fumes, is 2½ inches high. The fumes are carried to the back end of the floor of the fuming chamber, which has an opening 1½ inches across its whole width, which allows the fumes to ascend into the first slide space. The first slide fits flush against the back of the box and has a space of 1½ inches across its front end, which allows the fumes to ascend to the second slide space. The second slide has its opening at the back end and allows the fumes to come into the third slide space, and so on, until we reach the top of the box. The chamber for carrying off the fumes has its opening at the front end of the box. The pipe for conveying off the fumes is placed at the back end of this chamber, on the top of the box. We use a 2-inch tin pipe.

It is necessary that the pipe should be

attached to a chimney-flue, or attached, as we have it, by what iron-workers call a "jacket," on the stove-pipe. This is the best way, as you are always certain to have a good draft, which can be regulated at the sliding front of the door of the fuming space.

I offer the above, after a faithful trial and certain approval of others who are acquainted with the principles of radiation. It is pronounced correct in principle, and does the work in the best manner and is given without price, hoping the thinking ones may try it.

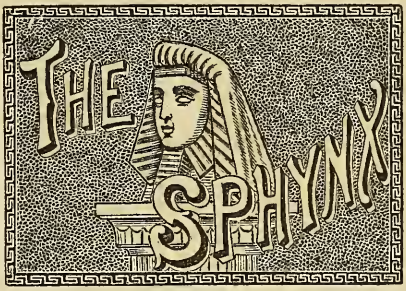
W. L. SHOEMAKER,
(With Albert Moore),
828 Wood Street, Philadelphia.

## Dr. Vogel's Photographer's Pocket Reference-Book.

How often have we all felt the need of a work for ready reference which would answer the hundred and one little questions which come up in our daily practice, such as the definition of the terms we use, the weights and measures, the formula for this and for that, and so on—a *dictionary* of the art, as it were. Feeling this common need himself, Dr. Vogel, after much labor, has completed such a work, alphabetically arranged, and several thousand copies of the German edition have already been sold.

We would be derelict in our duty should we not give our readers a complete translation of it; and after some six months' care and labor upon it, we hope to give it to them before the end of this present month. If not, very soon after. Dr. Vogel calls it his "*pocket-book*," and it is of shape and size convenient for carrying in the pocket. We commend it to our readers as being *very useful;* and what more can we say in justification of its being brought to your attention? No doubt the many friends of Dr. Vogel will welcome this new contribution to the advancement of our art from his pen, and give it a hearty welcome.

The advertisement of it appears in proper place.




I HAVE a silver bath. When it was new it was 40 grains to the ounce. I worked it awhile until my ferrotype plates began to have metallic stains and markings on them. I concluded the bath was to blame, so I added bicarb. soda until it turned red litmus-paper blue, then I put it in the sun three or four weeks, then filtered and added nitric acid until it turned litmus-paper slightly red. I then coated a ferrotype plate as usual and put it in the bath and left it in the usual time, then took it out, when lo! the collodion film was as transparent as when I put it in the bath, and not a creamy, opaque film, as usual with the same lot of collodion; nothing daunted, however, I put it in the *camera* and made the exposure, took it to the dark-room and poured on the developer, but if I had put the plate in clear water at first instead of the bath I would have had about as much of a picture. Upon taking the bath to the light it had the appearance of milky water, and upon standing awhile the reduced silver settled at the bottom in black powders. I then tested it with the *hydrometer*, and it marked forty grains to the ounce.

1st. I want to know what these forty grains are. They surely are not silver after working the bath about three months, though very slightly. 2d. What caused those metallic silver stains? They generally appear in hot weather, when in cold weather they disappear with the same bath and collodion.—"SABINE."

*Answer to Sabine.*

You added to your bath too much bicarb. of soda. It requires but a few grains to neutralize the acid, and if more than this quantity is added an equivalent amount of

nitrate of silver is decomposed, carbonate of silver being precipitated and *nitrate of soda* left in solution. As the hydrometer shows merely density, it would sink to about the same point in this solution as if it contained nitrate of silver only.—J. F. M.

I HAVE for some time past had an article for you, but have waited to watch effects. Mr. E. Anderson's article on the weak bath draws me out. I usually make my negative bath 45 grains; less than 40 grains would not work well. About two months ago I made a new bath of the usual strength; it would not work right. The same collodion and developer produced good results in another bath. The negatives were coarse and streaky, just if from a bath too strong, but on testing it was right. I thought I would try diluting it, so I took out a small quantity, and put it into a half-size bath-holder and diluted to 35 grains. I noticed a slight improvement; at 30 it was better, at 25 better still, at 20 very good, and at that strength I used it. It is still in use. I have never obtained finer results than I obtain now. I inclose prints from negatives made in five seconds, so that you can see that it is not slow, for the negatives are full of detail with that short exposure, and often come up to full strength by the first development with iron and ammonio-sulphate, and with the same collodion in ordinary use.

Now can you, or any of the different societies, tell me what is the cause of this bath acting so strangely? I don't understand it.

I will, however, add this: I have for several years past prepared my own nitrate of silver. That from which this bath was made was prepared for a quantitative purpose. I do not know certainly that it was any purer than usual, but was more carefully made. There may be something in this worth looking into. The bath is only just acid enough to give good clear shadows.

Please ventilate this. JOS. VOYLE.

I TRIED Mr. Anderson's last formula (last I have seen) for *sour bath*, 22 grains strong, and highly iodized collodion, but only succeeded in getting a negative of the city of *Venice*, minus the buildings and gondolas. Please ask Sphynx or Mr. Anderson how I can prevent those river marks.—ALPENA.

IN the July Sphynx "A. L. M." wants to know how to mount prints so the mounts will not curl and cockle. I will give my way, and if you think it worth it, you may publish; if not, put it in the waste-basket.

I have a strip of sheeting as wide as the mount is long, and two or three yards in length; this I saturate with water, and wring it out slightly, then take two cards, place the faces together and lay them on one end of the strip of cloth, fold the cloth over them, then put on two more cards, and so continue until you have them all folded in the cloth, then place a weight on the top and let them stand over night, and in the morning they will be just damp enough, so they will not curl in mounting; of course this will not work with Slee's most excellent mounts. C. N. STEVENS.

P. S. Can Sphynx or any one else tell of a method to produce stereos from a single picture; is the thing possible, and have the relief the same as those taken from nature?

C. N. S.

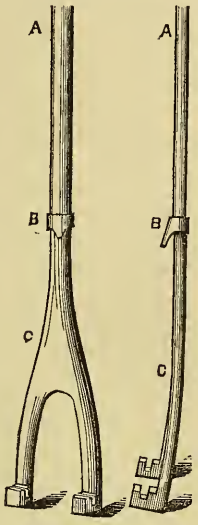
No; can't be done.—SPHYNX.

## THE "JACKSON" DIPPER.

BY B. PENNINGTON.

ALLOW me to introduce you to my Jackson dipper, which is made out of white hickory, well tarred or shellacked, which is easy to make and a great pleasure to work with. I have no patent on it and do not intend getting any. I consider it too useful an article to the fraternity, and besides that I have no particuliar liking for *patentees*. The cuts accompanying will show at a glance its advantage over common dippers. At C there is curve sufficient to keep the plate at a proper distance from the handle, which enables the operator to dip the plate film side toward him. B is a silver slide, made to slide up and down, so

that any size plate can be used, and at the same time is held secure by the silver slide, which is made in the shape of a saw-tooth, the tooth part sliding over the plate, holding it fast, so there is no danger of ever losing a plate in the bath. The handle is made a little larger at the top at A, so by sliding it towards the top, the slide adjusts itself. The slide is soldered on to the handle tight enough to work easy. Having fully realized the advantage of working with such a tool as this, I want others to have it if they will, and can say to any one after giving it a trial that they will never go back on it, for all the plates being coated film side down, the result is clean plates, all the dirt (if any—there should not be any) adhering to the back of the plate. And now, having said all about this very necessary little article that may be required, if you see proper to give it a place in your very valuable Journal (*our* Journal, excuse me) you may do so, and if any one is benefited by it I have then accomplished my object.




## SOCIETY GOSSIP.

Several of the Societies have adjourned until autumn, and of course our *Gossip* will be scant until then.

Pennsylvania (Philadelphia), June 16th.—The Secretary, Mr. William L. Shoemaker, presented several photographs of a new fuming-box which he has invented, and gives to the fraternity without cost.

Mr. Rhoads spoke in favor of a room, to be at all times open to the members, and on his motion the Society will vacate the present rooms at the end of this session.

Mr. Carbutt read a paper on the albumen process for the production of glass positives for lantern purposes, or for the reproduction of negatives.

In each part of the manipulation he gave the authorities from which he made the abstracts comprising his paper.

He exhibited a number of positives developed both by the acid pyro and the alkaline pyro. Those made by the latter were pronounced the best.

Mr. Carbutt stated that all these things had been known and practiced, more so in England than in this country; and would offer the process as he worked it, at the Convention of the National Photographic Association to its members.

On motion, adjourned to the usual night in September, to meet at the gallery of W. H. Rhoads, 1800 Frankford Avenue.

Brooklyn Photographic Art Association (Brooklyn, New York).—In our last *Gossip* we published a series of resolutions adopted by this Society, relative to the award of medals, &c. Our want of space compelled us to omit some of the excellent arguments in favor of those resolutions, from which we now make the following extracts. Mr. Alva Pearsall who offered the resolutions said:

"Now, while I approve of exhibiting our works on every possible occasion, believing it has a tendency to elevate the art, I always have disapproved the issuing of diplomas or medals for the same; my conviction having always been that instead of elevating photography, it had a tendency to lower it.

"After all, what does it establish (providing the judges appointed are competent to pass upon photographic portraits, which I doubt)? If So-and-so should be awarded the first medal or diploma in Paris, Vienna, or London, for the country he represents, does it establish the fact that he is the best photographer in that country? By no means. In order to establish such a fact every photographer in that country must be represented at the exhibition. And the same holds good in respect to cities. First, diplomas have been awarded where there was no competition whatever. Now, if there is any value in a diploma, outside of its being an advertising medium, and as such it is to be deprecated, does it not deceive the public in the respect I have mentioned, and under the same circumstances?

"I have always looked upon photographing as a profession, and my great desire and study has been to do all I could personally to make it recognized by the public as such, and also as an art. Now, the classing of photographic portraiture with mechanical inventions and productions in the awarding of diplomas I believe fatal to this end, and I know from personal conversation upon this subject that many of you share this belief with me. I would ask why is it that diplomas are not issued for portrait and landscape paintings? Is it that they are not worthy of it? Or is it that they are above it? I think all of you will agree with me that it is the latter. And claiming photography to be an art, we must emulate it by refusing to exhibit our works if not accepted as such, and that we are also entitled to the same considerations as regards entrance fee and the issuing of complimentary artist's tickets as the representatives of any other branch of art. Now, by making this demand, and the voluntary asking of the abolishing of awards and diplomas, we will do more to elevate photography and place it on a higher standard before the public than by any other means in our power.

"Now, photographic portraiture being a personal effort, wherein the artistic feeling and talent of the photographer is apparent, it follows that many styles are the result from individual conceptions in lighting and posing, another in the arrangement of drapery and accessories, another in the chemical effect, and so on to the end of the chapter, and yet all may be of equal artistic merit. Now, I would ask how any judges can pass upon such pictures and still do justice to all? The impossibility of such a thing being an acknowledged fact is the reason why the awarding of diplomas causes so much discord and dissatisfaction. In New York city this has been the case for years, and the epidemic broke out in this city (Brooklyn), last year at our first exhibition. Now, aside from the objection to diplomas on the ground of art, this is another reason why I am opposed to them, having the success of our Association at heart, and desiring to see no discord or ill feeling among its members. With these few remarks, which I believe were hardly necessary, I will read the resolutions, and ask respectfully that they may be adopted."

German Photographic Society (New York), June 4th.—Messrs Clausnitzer and W. Klauser were elected members. The librarian, Mr. Martin, reported that all the missing back numbers of the *Philadelphia Photographer* and the *Photographic World* were on hand again, and remarked that he was supplied with them free of charge.

It was moved and carried to give Messrs. Benerman & Wilson a vote of thanks for their liberality.

The committee appointed last meeting to experiment with paper saturated with bicarbonate of soda, for the use of backs in printing-frames, reported very favorably. Prints made with these backs not only kept white longer than others, but toned quicker and better too.

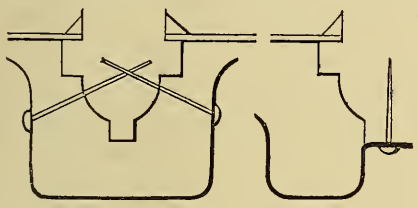
Mr. H. Rocher, who was present in the meeting on his journey from Chicago to the Vienna Exposition, gave his experience about air-bubbles on double albumenized paper. He said that he had been troubled with them lately to a great extent, even so that they showed already in the fixing solution. After trying almost everything, the only remedy he found to be of any effectual use was the addition of a little alcohol to the hypo.

## To Prevent the Skylight Leaking.

BY E. W. MEALY.

Some one proposed a plan in the April number of your Journal of applying gutters to a leaky skylight. Well, now there is nothing more annoying than a leaky skylight, but as he did not explain how the gutters were attached, I will explain how I have been using them with success. Every photographer knows that a skylight seldom ever leaks except along the ribs of the sash, unless there be a broken pane. My plan is this, and it can be applied to either wooden or iron sash, by drilling holes through the latter; if the sash is wood, brads may be used. I have made gutters as described below to run the full length of each rib, the same shape of the rib but a little larger, so as not to allow it to touch. See drawing further on. I use only half of the gutter, and it is tacked on in such a way as to catch the drip. It should be put on so that the edge barely touches the glass on either side of the rib, and flares out a little in order to receive the drip. These gutters should

all connect at the bottom with one gutter, with a pipe that carries the water outside



of the building. If you think this is worth a space in your Journal, you are welcome to give it for the benefit of those who may be unfortunate enough to have a leaky skylight. I do not claim that it is anything new, but I have never seen this plan, which certainly is a very sure one of getting rid of the annoyance.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*Printing a Portrait from Two Negatives at once.—Skill in Manipulation.—Mons. Marion's Carbon Processes.*

*Printing a Portrait from Two Negatives at Once.*—That a print produced from two negatives, one superposed upon the other, possesses many charms there can be no doubt. It is sufficiently defined because it is printed in close contact with a sharp negative. It possesses soft and diffused definition because another image printed through the thickness of the glass is impressed at the same time. The chief difficulty consists in getting the two identical negatives. One method you recently described. Here is another, sent to me by one of my correspondents. He says:

"I was led to try the use of two plates because I was unable to retouch some of my negatives, and resorted to this method as a means of securing good results. After repeated experiments and numerous failures, I at last hit upon the following plan, and which I put into practice whenever time will allow, for by this means I get far better and much more certain results than I can obtain by the use of a single plate. And now for the method employed.

"Having thoroughly cleaned two plates, which we will designate by the numbers 1 and 2, I enter my dark-room and proceed to coat No. 1 with collodion about a month or so old, and of a deep cherry color. This I put at once into the bath, and after a minute or so plunge it up and down rather quickly till all the greasy lines have disappeared. It is then taken out and set upon a pad of blotting-paper to drain. No. 2 is now coated (but with collodion which has been freshly iodized, and is of a pale cherry color) and sensitized in the usual manner, but without hurry, for No. 1 does not lose any of its sensitiveness, but rather *increases* in that respect (why, I do not know). Having taken No. 2 out of the bath, I then place it in the carrier of the dark slide first, and at the top and bottom I place a thin strip of blotting-paper, just sufficient to prevent actual contact with No. 1, which is now laid upon it. The plates are now exposed, and taken back to the dark-room.

"To develop the pictures, I take No. 1 out of the slide and place it upon a developing stand and gently cover it with the developer. A faint image—in fact, shadow would, perhaps, be the better word—gradually develops itself, but I now leave it covered with the developer while I develop and intensify No. 2. Having washed No. 2, I then wash No. 1, and intensify that also, which being done, I fix both with cyanide of potassium. The developer is the ordinary protosulphate of iron, and the redeveloper pyro, glacial acetic acid, and silver."

*On Skill in Manipulation.*—I should think that very many of your readers must have read the paper of Mr. Alva Pearsall, read before the Brooklyn Photographic Society, with the profoundest astonishment, and that Mr. Elbert Anderson and Mr. Gihon must feel crushed and humiliated beyond measure at the exposure of the pernicious nature of their teachings, in venturing to suggest that art is greater than manipulation, mind superior to matter. The time was when it was the reproach of photographic societies, of photographic literature, of photographic conversation, that their be-all and end-all seemed to be processes and formulæ. Mr. Pearsall bewails the passing away of this once common reproach, and condemns what

he regards as the extravagant laudation of art to the detriment of manipulation. As the complaint arises out of two articles contributed to my Year-book, by gentlemen whom I have never seen, but have nevertheless learned to esteem, I cannot forbear one or two observations on the subject. I am tempted to ask Mr. Pearsall what is or should be the aim of the portraitist? Should it be to produce a mere mechanical transcript of the person or thing set before the camera; or to produce something which, besides being true as a transcript, shall possess pictorial charms? Is it, in short, simply a photograph or a picture? If the former, skill in process, formula, and manipulation must bear the palm; if the latter, art-skill must inevitably take precedence.

It may be admitted at once that no good picture can be produced without care and ability in the most mechanical details of the art. Photographic skill, in its narrowest acceptation, simply comprehends the power to produce a perfect image of an object before the camera, no matter whether the object be beautiful or ugly, whether the pose be graceful or awkward, or whether the light and shade be pictorially arranged, or commonplace and ineffective. But, altogether apart from the pictorial value of the result, a considerable amount of skill is necessary to produce a really perfect image—perfect chemically and mechanically, we mean—of the object before the camera. The collodion must be in good condition, the bath in proper order, plates perfectly cleaned and properly coated, exposure right, and development duly managed, so as to be in harmony with exposure and condition of chemicals. Each chemical must be in good condition, and each in harmony with all others to produce a good print of a thing, as simple as, say a chess-board. All this may be easily admitted, and will be admitted by those who most insist on the importance of art-capacity in securing good results. But it is because all this is so easily admitted, because at this period of photographic history it is, in fact, so self-evident, that it seems no longer necessary to dwell upon it, whilst *it is* necessary to insist on the importance of art culture. One of the most important aims, if not the primary object, of the portraitist is to produce pleasing pictures; the likeness must of course be true, but as pleasing always as truth will permit; and this end can only be secured by the interposition of art.

*Mons. Marion's Carbon Processes.*—Mons. Marion, a veteran experimentalist, has recently made some decided steps in carbon printing. He has, indeed, distinctly established a new principle, namely, that the actinic influence set up in a bichromated film can be transferred to another similar film by mere contact. That the result produced by the action of light upon a bichromated film was cumulative has been already proved. Mr. Johnson, Lieutenant Abney, and others, have shown that an image once impressed by light upon a bichromate film continues to deepen until developed; and Mr. Abney, as also Mr. Baden Pritchard, made good use of this principle in the production of carbon prints. The pigmented tissue, sensitized with bichromate solution, was put under the negative and exposed to light for a period of a few minutes only, and then withdrawn and put away in a dark-room. An incipient image was produced upon the tissue by this short exposure to light, and by keeping this for some hours, the action set up continued, until at last a vigorous image was formed capable of being developed.

M. Marion has now taken a step further, and discovered a very beautiful scientific fact. It is briefly this: he finds that the impression made by light upon a sensitive bichromate film is capable of transmission to another similar surface placed in contact with it. Thus any bichromate print taken fresh from the printing-frame will, if put face to face with another bichromate film, produce upon the latter another impression, the solarized action being transferable from one surface to another. This is a most interesting point; we have, as it were, stored up in our original print a quantity of sunlight, which has been absorbed by the print, and the latter is able to excite another surface exactly in the same way as if it had been exposed to the sun.

Two processes have been wrought out by M. Marion. One he calls *Mariotype by pressure*, and the other *Mariotype by con-*

*tact.* In the first he takes a sheet of gelatin, sensitizes it in a bichromate solution, and exposes it under a negative. The solarized image thus obtained he uses as a printing-block to secure other impressions. The gelatin-block is swollen in cold bichromate solution, and is then put into a press, just like a lithographic stone or collographic printing-block, for striking off copies. Instead, however, of inking the stone—or block, rather—it is rubbed over with more bichromate solution, a sheet of sensitive tissue is applied, pressed down against the surface of the block for a couple of minutes, and withdrawn. A second sheet of sensitive tissue is applied in the same way; a third, and so on, the contact of the tissue with the block for this brief period being sufficient to produce upon the tissue an incipient image, which rapidly becomes vigorous on keeping, and may then be developed in the ordinary way.

In the second printing method—*Mariotype by contact*—the prints are secured exactly as in silver printing, the paper being sensitized upon a bichromate solution instead of upon a silver bath. The prints are of a pale-yellow color, and, to render them of a desirable tint, they are pressed in contact, while moist, with sensitive pigmented paper. The solarized action upon the surface of the yellow print eats into the pigment after a time; and when we come to develop the pictures the print separates, dragging with it portions of the pigment which covers the whole of the image. This attachment of the pigment to the bichromate image is not a mechanical, but a chemical action, the pigment not adhering uniformly in patches, but in most delicate gradations, according as the light has acted more or less vigorously upon the original gelatin surface.

Both processes are ingenious, elegant, and novel; how far valuable, in a practical sense, remains to be determined.



## OUR PICTURES.

It will be observed that our present number is embellished by two very beautiful groups of heads, apparently fine steel engravings, but in reality the production of a new photo-mechanical process, which we now first have the pleasure of introducing to our readers. In another part of our current number we give a brief history of this class of photographic printing; and the process described as the "Heliotype," the invention of Mr. Ernest Edwards, is the one by which the present examples were printed. Those of our readers who were present at the Exhibition at Buffalo, were privileged to see Mr. Edwards work his process there in person. For the benefit of those who were not present, we give the following

### Description of the Heliotype Process.

The principle on which it is based was discovered by M. Poitevin more than twenty years ago, which is, that gelatin, which ordinarily absorbs water very readily, yet when treated with a bichromate and exposed to the action of light loses this property to a greater or less degree, according as the action of the light is greater or less; so that we can produce by light on a sheet of bichromatized gelatin, by means of a photographic negative, the same result that is produced in lithography by drawing on a stone with a greasy ink; that is to say, where the light has acted, just as where greasy ink has been used, water is repelled; where light has not acted water is absorbed and grease repelled, and where light has partly acted, as in the half-tones of a negative, water is partly absorbed and grease partly repelled. Ordinary gelatin is dissolved in warm water, and a sufficient quantity of *bichromate of potash* is added to render it sensitive to light, and of alum, to make it very hard and durable. This is poured on a level surface, previously rubbed over with wax, and is dried by means of heat. As soon as dry, or when required for use, the sheet of gelatin is stripped from the plate, and printed under a photographic negative. When the picture appears sufficiently plain, the sheet of gelatin is taken from under the negative, and made to ad-

here to a metal plate. The method of adhesion used is that of atmospheric pressure. The sheet of gelatin and the metal plate are put together under water; as much of the water as possible is got rid of from between the two surfaces, the gelatin absorbs the remainder, so that a vacuum is created, and the picture is thus attached to the plate by the weight of the atmosphere. The superfluous chemicals are soaked out with water, and the plate, with the printing surface of gelatin attached, is placed on an ordinary platen printing-press, and inked up with ordinary lithographic ink. As in lithography, it is necessary after every impression to damp the plate with water. A mask of paper is used to secure white margins for the prints, and the impression is then pulled and is ready for issue. Two or more inks are sometimes used in the production of one picture, as it is found that where the light has acted deeply a stiff ink is required, but where it has not acted so deeply—that is, in the half-tones—a thinner ink may be used; so that a stiff ink is first used for the shadows, and a thinner ink afterwards for the half-tones. In this manner three or four inks may be used in printing one impression. The effect of India or other colored tints is obtained by using, instead of ordinary water for dampening the plate, water with some color in it. The paper absorbs a certain amount of water out of the plate, and with it a certain amount of color. The ordinary rollers are not found to be satisfactory, and a mixture of gelatin, glycerin, and castor oil is used.

The heliotype process is worked in this country by Messrs. James R. Osgood & Co., of Boston, who have purchased the American patents. The word "heliotype," which was, we believe, coined by Mr. Edwards, the inventor of the process, in the early part of the year 1870, and adopted by him to designate his invention, as well as the company which was formed to work it in England, has been registered in the Patent Office in Washington by Messrs. Osgood & Co. as their trade-mark, derived by assignment from the English company.

A few weeks ago, by the courtesy of Messrs. Osgood & Co., and of Mr. Edwards, we were privileged to witness the workings of this beautiful process in Boston, and gather the notes which we append. Having also seen several photo-mechanical processes worked, we were surprised at the simplicity and ease of this one, which of course conduces to cheapness of production. The results speak for themselves. Mr. Edwards proposes to remain in this country to work his process, and he could not have fallen into better hands for its development into a most important branch of art than those of the well-known publishing house of Messrs. Osgood & Co. We spent several hours at the heliotype branch of the establishment in examination of this most interesting and promising development of photography.

But we discovered more in it than we have yet alluded to. During the past few years many of our correspondents—and we plead guilty in the same direction—have said to you, "*Study art!*" "*Examine the works of the old masters!*" "*Pore over their poses and linger over their lighting,*" *and so on, and so on,* without ever once explaining to you where and when you could have the opportunity of doing so. We now "rise to explain." The opportunity is before you. Messrs. Osgood & Co. have acquired the right to reproduce the celebrated "Gray Collection" of engravings owned by Harvard College. This collection embraces the best works of all the old masters, and now we can share its benefits at trifling cost, compared with the thousands of dollars expended for the originals. We have made selections of several of them such as we think would most benefit photographic students of art, and have arranged with Messrs. Osgood & Co. for their sale at reduced rates, the particulars of which are given in the advertisement. We now not only recommend those who aspire to greater excellence in their own lighting and posing to study these works of the old masters, but we open the way for them to obtain them.

The two pictures which we present you, of a size reduced for our purpose, are Groups of Cherubs and Angels, engraved by Toschi, after frescoes by Correggio in the Church San Giovanni Evangelista, at Parma, and are heliotype reproductions, from the Gray Collection.

We offer them, of course, only as studies

in lighting the face. As such they are worthy of all the mind you can apply to the proper understanding of them. The light, of course, comes from one direction, but the variety of pose in the faces gives you every conceivable variety of lighting—top, front, right, left, upward, downward, oblique—all of which you may produce in your studio when desirable. They are really invaluable, and it is a long, long time since we have given you pictures from which you may *learn* more than from these exquisite reproductions. We trust that you will refer to them constantly, and that their lessons will not be lost; but on the contrary, influence you in your work, and create in you a thirst for further light in the same direction; for it is in this direction that you must study.

# Editor's Table.

We are indebted to Messrs. Frank Jewell, Potter & Bro., J. A. W. Pittman, and A. S. Barber, for examples of their latest work. We rejoice in the number of really good photographers that now graces our profession.

We were favored with a very pleasant call from Mr. L. P. Vallee, of Quebec, Canada, a few days ago. Mr. Vallee presented us with some exquisite examples of his outdoor work, which are in technical excellence first-class. His stereographs are good, but he seems to excel them greatly in his whole-size and full-sheet prints. One of Montmorency Falls in winter is a splendid view. We are glad to see him pushing this branch of our art, and hope he is greatly prospered in it.

From Mr. Isaac Chandlee we have a fine photograph of one of the Bridesburg Manufacturing Company's "ring-frames," which is hard to excel as a photograph of machinery.

Mr. W. L. Gill, Lancaster, Pa., has favored us with whole-size and stereo views of the grave of Thaddeus Stevens, and the monument thereon. Mr. Gill offers to sell copies to the trade.

Items of News.—Mr. R. Newell, of this city, was photographing an iron pulley-wheel a short time ago. After he had made a negative, he turned his back, the wheel began to turn, and rolled on a rat and killed it. A few days after, Mr. Newell had occasion to make a street view. He of course attracted the usual crowd by his camera and focussing-cloth. The latter was too much for a new Irish policeman, who, after eyeing the machinations of Mr. Newell, finally crossed over and said, "*Aout* of thess *naow!* Thake *away* yer gamblin' tings." He thought Mr. Newell was running a "keno" machine, and wouldn't believe it until he took another view of things, *i. e.*, until Mr. Newell took the view. —President Bogardus writes us that he shall call all his Convention expenses his "Buffalo Bill." —Mr. W. L. Bailey, Jefferson City, Mo., was shot in the abdomen and dangerously wounded recently, while assisting the sheriff in the arrest of some desperadoes. He wrote us that he hoped to recover in time to be at Buffalo. We hope so. too.

One of our subscribers in Florida has sent us a "healthy young alligator," about a yard long. Everybody leaves our yard whenever that yard of alligator approaches them. We can appreciate such jokes, but we hope no one will send us a bear or a buffalo. We prefer new prepaid subscribers. The alligator is still "healthy" and well cared for.

Fire.—At the late fire in Westboro', Mass., Mr. Theo. N. Gates lost his gallery and stock entire, with some 5000 negatives. He saved $26 worth of stock only, and his loss is about $2500. The fire did not begin in his gallery, of course, but was the work of a next door incendiary. Mr. Gates hopes to be at Buffalo, nevertheless, and *we* hope he will soon be doing a prosperous business again. It is in him.

The Nursery is a child's monthly magazine, published by Mr. John L. Shorey, Boston, Mass., at $1.50 a year. It is amply illustrated, and we hardly pick up a number without seeing several cute little positions for children which any photographer can imitate in his gallery.

Mr. George B. Ayres, artist (author of *How to Paint Photographs*), has lately removed from Buffalo, N. Y., to Philadelphia. He will continue his professional services for the trade. Address him at 1232 North Sixth Street. Mr.

A. will be at Buffalo with us, and read a paper on a subject of which he is fully competent to write.

FITZGIBBON'S PATENT ADHESIVE FERROTYPE MOUNTS.—This is the invention of ex-Local Secretary Fitzgibbon, and consists of the usual ferrotype mount with a piece of "sticking-paper" attached to the back. This will be found a great convenience and saving of time to ferrotypers. Besides, it will secure better and neater work.

WE had the honor of a call from Mr. A. A. Hickox, representative of the well-known stock house of Messrs. John Taylor & Co., San Francisco, a few days ago. He is on this side of the continent hunting novelties for his customers, and being eminently able to make selections for them, they cannot help but reap advantages from his absence from his post. The *Philadelphia Photographer* is a great favorite on the Pacific coast, and so are our other publications, for which we are in a great measure indebted to Mr. Hickox, who understands the policy of keeping his customers well "read up."

USE POSTAL CARDS.—You can get them for a cent each, and when you send inquiries to us to be answered by post, you can save us postage by inclosing a postal card for answer.

SCHOOLS OF ART AND DESIGN.—It is not generally known that Prof. D. A. Woodward, "the solar camera man," is the able and popular principal of the School of Design at the Maryland Institute, Baltimore, Md., where there are some 438 pupils in the different classes. The Twenty-sixth Annual Commencement was held recently. The exercises were most interesting.

MR. R. H. BLAIR, Smyrna, Del., has sent us a whole-size view of the State-house at Dover, Del., where the notorious Dr. West was recently tried for murder.

THE Fourth Cincinnati Industrial Exhibition will be open from September 3d to October 4th. Full particulars may be had of Mr. W. W. Taylor, Secretary, Cincinnati, O. Photographs are Class No. 76, and by request no premiums are offered. This is right.

MESSRS. L. S. WHITE, Indianapolis, Indiana, Zimmerman Bros., St. Paul, Minn., and C. A. Wilson, Baltimore, Md., each favor us with a beautifully gotten up catalogue of their goods, which they will mail free to all of their customers on application

A SPANISH PHOTOGRAPHIC WORK.—From Sco vill Manufacturing Company we have received a new work, just published by them, entitled, *Manual de Fotografia*, by Dr. A. Le Plongeon, which is, as its title indicates, a complete manual of modern photography, including the making of ferrotypes, with the fullest details. It contains 226 closely printed pages, with a copious index, and will no doubt be very acceptable to photographers in South America, Cuba, and in Spain. The author has taken the most conscientious care, as we happen to know, in writing his work, and it is a great credit to him. He opens his work with a brief history of our wonderful art, and then in turn treats upon the studio, the apparatus, the collodion, bath, glass, lighting, posing, &c , and through all the stages of successful picture making by the most modern and successful methods. We congratulate him on the completion of his work, and hope that both publisher and author will be pleased with the reception it is sure to receive. Price, $5.

MR. R. B. LEWIS, of Hudson, Mass., says: "I frequently get from one number of your magazine more than the value of one year's subscription. One little hint or reminder sometimes saves a great deal of perplexity and trouble. None of us are too old or too wise to learn. Only good workers admit this fact. There are none who may not derive benefit from your magazine, and Mr. Anderson's book is the best investment of the kind to be made."

IMPORTANT SUIT AGAINST PHOTOGRAPHERS.—Mr. J. H. Tompkins, photographer, of Grand Rapids, Mich., requests us to call attention to the fact that Mr. S. Wing has commenced several suits in the State of Michigan for damages for infringing the sliding plate-holder patent, and Mr. Tompkins requests that all parties who know anything about the use of any sort of a sliding plate-holder previous to 1855 will please communicate with him at once. It is undoubtedly to the interest of the fraternity to give Mr. Tompkins all the information they can. We earnestly hope that some one of these suits will forever *decide* this long-standing grievous matter.

A NEW material for coating the inside of photographic baths, pans, and other vessels, has been invented and patented by Mr. R. Newell, 626 Arch Street, Philadelphia, which seems to be what has so long been needed. The days of broken baths and pans seem to be numbered. The vessels are made of wood, and coated with Mr. Newell's mixture, and stand pure nitric acid, silver solution, or anything of the kind. We hope he will soon put them in the market.

G. F. E. PEARSALL, BROOKLYN, N. Y.

THE

# Philadelphia Photographer.

Vol. X. SEPTEMBER, 1873. No. 117.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
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## Fifth Annual Meeting and Exhibition of the N. P. A.

THE voluminous report of the proceedings at Buffalo which follows, will give our readers a much better idea of it than any brief summary we can write. The whole grand affair was eminently and *pre-eminently, a success—more* so in many ways than any previous one.

Local Secretary Baker proved himself entirely competent to fulfil the duties imposed upon him, and the highest praise from the photographers of the United States is due him for his labors. His plans seemed to have been not only most systematically arranged, but most satisfactorily carried out, without any breach of quiet, or clash of any kind. The work was done and *well* done. Nothing that was needed seemed to be wanting, and we did not hear a single word of censure or dissatisfaction. On all this we congratulate him heartily, and assure him of our best thanks for the support which he gave us in our multiplicity of duties as Permanent Secretary, which were never more arduous. No doubt it was a great pleasure to Mr. Baker to see so many enjoying the work of his hands, and no doubt he has done much real good.

### THE EXHIBITION.

The Exhibition was held in a large skating rink, brilliantly lighted, and the arrangement of the uprights for hanging pictures was similar to that of former exhibitions. It reminded us of the Cleveland Exhibition. There was fully as grand a display as at Cleveland, and the average quality of the work was better. There were some magnificent examples of photography, and some of them from quarters which surprised us greatly, and which convinced us that there is a great revival among the craft at large. The German Photographic Society of New York united in their display, and erected a magnificent ornamental stand of their own on which to hang their pictures It was a great credit to them, and hereafter we hope to see other local societies follow this excellent idea. The dealers and manufacturers also made a grand display, and the whole Exhibition, when several hundred photographers were present with their blue badges on, gathered in knots, discussing a lot of pictures here, a formula or a method of lighting there, was a sight to thrill and gladden the heart of any earnest friend of our art. It was a *grand* sight.

The music was sweet and the attendance of the citizens was most gratifying and encouraging. With all due respect to other Exhibitions and their managers, this may safely be placed at the head of all, and called the greatest success of all. Never forget to honor Local Secretary Baker for this.

### The Meetings.

The meetings were undoubtedly the best ever held by the Association. As arranged previously, the *business* sessions were held in the morning and the scientific sessions in the afternoon. This excellent plan proved good, and everything worked as smoothly as possible in so large a body of human beings. The President was in good spirits and good health; he was supported in his decisions, and as a gentleman assured us who is in the habit of attending such bodies, and who attended every session of this, it was a remarkably peaceful Convention. The attendance was large and enthusiastic. We never saw such interest taken in the matters that were brought up, and one day with the mercury among the nineties, the assembly sat *three consecutive hours* and attentively listened to the discussions and papers read; and when the last speaker said, "I will close, for I see I am tiring you," cries of "Go on! go on!" were heard in all directions. That was wonderful and much to their credit. It was grand to see it, and promises "a good time coming" for photography. The attendance of ladies was unusually large, and they did their part of the work.

As will be seen by the report, the *variety* of subjects discussed was very great, and embraced nearly every topic of interest to the fraternity. While chemical manipulations in and out of doors, and lighting and posing were not overlooked, there was unusual attention given to the subject of art education and art culture. This was so remarkable that the *Courier* of Buffalo noticed it, and in a special editorial said:

"While the chief interest attaching to the meetings of the National Association of Photographers must necessarily be of a professional character, there is a fair quota of the reported proceedings which should have a decided value for the cultivated non-professional reader. For example, we may refer to the paper read yesterday afternoon by L G. Sellstedt, Esq., of this city, as an altogether admirable interpretation of the mysteries, the meanings, and the mission of art to the popular mind. This is a subject which is usually enveloped in unnecessary vagueness and fog, and concerning which the wildest misconceptions are abroad, even among intelligent persons. But Mr. Sellstedt has so tersely and clearly vindicated the nature and functions of the artistic faculty, as distinguished from the merely mechanical, and has so skilfully indicated the line between the true and the false in art, that the careful perusal of his paper cannot fail to give enlightened ideas. The same may be said of the capital paper from the pen of an unnamed sculptor, which was read in the Convention the day before, and which we can scarcely be wrong in ascribing to Mr. Charles Akers, formerly a resident of this city. *It speaks well for the character and aspirations of the guild of photographers that their national meetings are thus made an agency for the advancement of genuine art culture and its dissemination among our people.*"

Thus it will be seen that the proceedings of this Convention will not only tend to educate those immediately interested in it, but will step outside and educate the people, and when we get *them* interested, oh! ye photographers, better days will come *for you!* Hold fast then, and if you have not already taken hold, do so now and maintain this best of all institutions for you—the *National Photographic Association.*

*Join it for life*, and it will aid you *now*, and care for your families after you are gone.

It must never go down. It needs support *now.* Come to the rescue and then share the immense dividends.

We now hand you our report, and ask your careful and attentive perusal of it. We have striven to make it *complete and entire*, and as it will not be published in any other form, we hope you will carefully preserve the copy you receive for reference.

A word of thanks to our friends whom we met at Buffalo, for their words of good cheer, and we are done. We shall never forget your cordial greetings and your kind words of encouragement given to us there. While you are reading these pages we shall be riding upon the deep. We go to look after your interests, and those of our art entirely. We trust a visit to Europe will be for our *mutual* good, and if we are spared to return, let us all try to cheer the heart of the only Hesler by overwhelming him with our presence in 1874, *at Chicago.*

## FIFTH ANNUAL MEETING AND EXHIBITION

OF THE

## National Photographic Association

OF THE UNITED STATES,

Held in Buffalo, N. Y., beginning July 15th, 1873.

*FIRST DAY—MORNING SESSION.*

THE hour for the reassembling of the Association having arrived, the President, Abraham Bogardus, of New York, said:

The National Photographic Association, at its last annual meeting, held in the city of St. Louis, voted to hold the Convention this year in the city of Rochester, in this State. Circumstances beyond our control rendered it inexpedient, and in fact impossible to hold it in that city. The Rink which we had engaged, or partially engaged, was disposed of and altered into stores, and placed in such a shape that we could not make it available, and as the city of Buffalo stood next on the vote as to selection, and as our brother, Mr. Baker, seemed willing to accept not only the labors but the honors of the position, the Executive Committee saw fit to make him Local Secretary and to order the Convention to be held in this place,—the city of Buffalo.

Hoping you may have a pleasant, profitable, instructive, and harmonious Convention, I now take pleasure in calling the National Photographic Association of the United States to order.

### MR. BAKER'S ADDRESS OF WELCOME.

LADIES AND GENTLEMEN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION: In standing here at this moment, after the months of preparation that have sped, I must confess that I am unable to choose words which will fully assure you of the genuineness of the welcome which, on behalf of the fraternity of Buffalo, I would extend to you; and, on the other hand, any effort at expression on my part would perhaps be quite superfluous, after the assurances you have received through our organ, the *Philadelphia Photographer*, and which are now to be opened to you in the obvious result of our labors.

As you all know, it was only at the New Year that the N. P. A., through its Executive Committee, took us of Buffalo by surprise by requesting that room be found here for the next Convention. The time seemed short; there counted but five months, since increased to seven; but we resolved to do our best—to mount from the summit attained at St. Louis one step higher; for our Association must never go backward in meeting the needs of the photographer, and at our Conventions should be spread out to feast the eye and to satisfy the mind all that has been accomplished in the art and all that has been discovered in the science through the year. Not only this: we call ourselves artists,—a proud name, one which has opened the door of palaces, which has commanded the aspirations of youth, the smiles of beauty, the respect of age, and satisfied the yearnings of ambition; a name to which men were not only born, but which they earned.

If it has been this to be an artist, how are we deserving the heritage that has fallen to us? How are we using that heritage? Certainly there must be for us a glorious accumulation of their wisdom and experience if we are the lineal descendants of such men as Phidias, as Michael Angelo, and Rembrandt. If we wear their mantle, if we enter into their labors. is it too much to be expected of us that we should devote our lives to the same searching after order, harmony, and beauty which they gave their lives to? And by study of the principles they followed, may it not be anticipated that our results would be assimilated to theirs, though the methods must remain widely dissimilar?

Is it to be expected that the camera and the chemicals can give us Nature, set forth under the limitations which pictorial representation imposes and the artistically educated mind demands, when guided only by the ability to draw a focus and manipulate a plate?

In a word, is not artistic education the present all-absorbing and imperative need of our day? And to obtain it, must we not look to the past to find out how that which has been accomplished has been done, by the painter and by the sculptor, rather than longer remain a law unto ourselves, or seek to evolve a new order of beauty, or even to rediscover for ourselves those principles which for centuries have been fixed and determined?

In the affirmative answer to these questions you will find the keynote to my intention in doing what I have done to give direction to the order of exercises now opened; for I am firmly convinced that our results must be rendered analogous to the immortal works of high artists before we can justly claim their title or demand such consideration as they have received; and one of my chief pleasures in now standing before you is the assurance that this Convention will not close before you will have an opportunity of

hearing many of the most important artistic principles set forth by men who well know how to use them, and who are in fields different from ours, daily creating beautiful work on the foundation that we also should seek to build upon.

That the American photographer is awaking to a sense of his highest needs, is evident. This is why improved apparatus is in demand. This is why the form of light is so anxiously discussed. This is why there is so much request for processes of retouching. All excellent things to have and to know, but not filling our deepest wants.

It is this sense of need which has brought us together here to-day, and I trust that none will go away empty who came here to seek. There is no doubt but that to this Association photography owes mainly its recent elevation. Within my recollection, to be a photographer was to be barely respectable. We had, as a profession, no social standing. Among ourselves all was strife, ill will, jealousy, concealment, egotism. No city was large enough to keep two photographers friendly toward each other. Now how this picture is changed! We have taken more than one step into popular esteem; and wherever this Association comes, the eyes of the people are opened to the importance and weight our art has now attained.

The National Photographic Association. Ladies and gentlemen, its members, do you yet comprehend how broad and noble an institution this is? Over twelve hundred members scattered over our land, from Maine to California, and from Florida to Minnesota! All, each in his or her own place doing their best to work out the problems of our art, and the fraternity of its votaries.

Consider how the old strife has given place to cordiality, the secrecy to open doors, the jealousy to the right hand of friendship. As I look on these cheerful, happy faces before me, and think of the exertions and sacrifices some of you have made to be present here, I feel that we are all of one mind; and in taking this hasty glance at what our Association has accomplished within the last five years, and at what it is pledged to for the future, I know that that mind is, as is the spirit of your welcome to Buffalo, to sustain to the uttermost the National Photographic Association of the United States of America.

## PRESIDENT BOGARDUS'S REPLY.

My Brother: Our annual gatherings have been held in several States of the Union, and to-day we meet for the first time in the Empire State. As you so warmly welcomed us, I almost felt as if I ought to join you in the welcome rather than in the response, because I am at home in this my own State. I feel as I am sure every son of this State will feel; he will join with you and me in welcoming every member from every other State. But, sir, in the name of the Association, I thank you for your words of welcome, your words of encouragement, and as we look at the work already done, we feel that we owe you and the working committee of the Buffalo Photographic Association a lasting debt of gratitude for the amount of labor you have performed.

The Scotch boy said it was a grand time when the minister came round visiting, but it was hard on the chickens. So I think it is a grand time for us photographers to gather at these conventions, but it is hard on the local secretaries. I am glad, sir, to add your name to the roll of honor with Loomis, of Boston; Ryder, of Cleveland; Rhoads, of Philadelphia, and Fitzgibbon, of St. Louis.

We anticipate a grand time for photography and all interested in it. We hope this Convention will be the means of giving it a bound upward and onward toward its high destiny.

A little girl went out to find her hen's eggs; she came back and said she could not find any eggs, but saw lots of hens standing around doing nothing. Now, if we have come here to stand around and do nothing we shall go away empty; but, if we come here to study and work, we shall go away better and wiser.

We have laid out a vast amount of work, and mean to do it if possible.

I see before me the reporters, men who so faithfully chronicle the acts and sayings of all public bodies, and send them forth through the press to the intelligent world. I am glad to see them, and hope they will picture our proceedings as faithfully as we photograph the human face.

I hope our meetings may be the means of dispelling all petty jealousies between us because we are engaged in the same profession.

At St. Louis, when the members of that great Convention were out enjoying a ride given us by the photographers of that city, some one (seeing the long line of carriages) asked, "Is this a funeral?" "Yes!" said a brother, "the funeral of animosity." That was grand, and I hope this Convention will not mourn its death or erect a monument over its carcass, but bury it still deeper.

In the language of another, which may well be adopted by us all—

"The doors of art we open wide,
The realm of thought is free;
On this wide world there's room enough
For you as well as me."

I hope time will be taken for mutual introductions and hand-shaking. It does men good to come together and feel that they are sustained and sympathized with, and I am sure in our difficult profession we all need it. We have no particular grip, but let it be the grip of friendship.

It is a great privilege to have the best men in the profession stand up here before you and submit willingly to be catechized. I wish Daguerre and Niepce could stand here and see this Exhibition and Convention, they would be ready with our great and good Morse to say: "What hath God wrought?"

Again, in the name of the Association, I thank you.

THE PRESIDENT: The next thing in order is the reading of the minutes of the last Convention.

A. HESLER, Chicago: I would move, as the minutes of the last Convention are very long, and have been already published and read by all of us, that the reading of the minutes be dispensed with.

Agreed to.

THE PRESIDENT: The next business is the very important one of the roll call; I do not want that dispensed with at all.

E. T. WHITNEY, Norwalk, Conn.: Connecting it with the request that every member rise when his name is called.

THE PRESIDENT: I was about to make that request, Mr. Whitney. It is a pretty long operation to read ten or twelve hundred names, but I think it ought to be done.

The names of the *Life* members were first read by the Secretary.

The Veteran list was then called, and responded to by a number.

A DELEGATE: I move that those who ought to be on that list, stand until their names be put on the list.

MR. WILSON: I would say that the reason that they are not on, is because they did not send their names.

THE CHAIR: It is moved and seconded, that all the gentlemen present who have been engaged in the profession twenty-five years or upwards, whose names are not on that list, will please rise. The following gentlemen rose: Mr. Van Aken, Mr. Black, Mr. Ryder, Mr. Root, and Mr. Southworth, and their names were added to the list by the Permanent Secretary.

THE PRESIDENT: The next business is the calling of the regular roll.

The Secretary then called the roll of members who joined the Association previous to this Convention.

THE PRESIDENT: The next business in order will be the reading of the Treasurer's report for the past year.

ALBERT MOORE, Philadelphia, Pa.: Ladies and Gentlemen—As your Treasurer, I would make the following report:

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| I have received as per balance, . . | $215 63 |
| For fees and dues, for the year, . . | 1773 00 |
| For life-members, . . . . . | 550 00 |
| Total, . . . . . | $2538 63 |

I have paid out the following sums for these different items:

| | |
|---|---|
| B. Weaver, Phonographic Secretary, . | $60 00 |
| Expenses St. Louis Convention, . . | 281 00 |
| " " " . . | 93 73 |
| " " " . . | 700 00 |
| B. Weaver, . . . . . | 58 00 |
| B. Weaver, . . . . . | 33 70 |
| American Bank Note Company, . . | 20 18 |
| Printing, . . . . . | 14 00 |
| Permanent Secretary, postage, envelopes, printing, expenses, . . | 43 57 |
| Envelopes, . . . . . | 4 10 |
| Bill left over from Philadelphia, . . | 12 00 |
| Messrs. Howson & Son, . . . | 175 00 |
| Permanent Secretary, expenses, postage, &c., . . . . . | 32 00 |
| Messrs Howson & Son (additional), . | 100 00 |
| J. H. Fitzgibbon, balance. . . . | 35 53 |
| Postage and envelopes, for dues, . | 12 00 |
| Sherman & Co., bill for printing Manual, . . . . . | 228 00 |
| Permanent Secretary, cash paid for postage on life-membership and getting out certificates, . . | 38 30 |
| Scovill Manufacturing Company for the gold medals to foreign exhibitors, Of which they made a donation of $25.00. | 80 00 |
| Sherman & Co., . . . . . | 15 00 |
| Expenses of Exhibition, . . . | 120 40 |
| Executive Committee, . . . | 50 00 |
| Total, . . . . . | $2581 28 |

You owe the Treasurer some fifty-eight dollars; therefore the treasury is worse than empty. I respectfully ask that an auditing committee be appointed to see that these items are correct.

THE PRESIDENT: I will appoint Mr. E. T. Whitney, of Connecticut, Mr. William P. Slee, of Poughkeepsie, N. Y., Mr. John R. Clemons, of Philadelphia, and Mr. R. J. Chute, of Lynn, Mass., as a committee to audit the Treasurer's accounts and report.

The committee will now retire with the Treasurer, and report to the Association as soon as they can do so.

THE PRESIDENT: The next business in order is the Report of the Executive Committee for the year. I always regret that one of the sessions have to be taken up with this routine business; but it has to be done, to keep ourselves organized. We will get together at three o'clock and talk photography right through, and you will not hear routine matters from anybody. Still, we are glad to have you sit with us and hear this routine matter. It wants all our heads to make it out right. The report of the Executive Committee will be ready in a few minutes.

The Secretary has a few letters to read, which he will do now.

THE SECRETARY: I have a letter of regret from J. Lee Knight, Esq., Topeka, Kansas; being unable to be present, he sends greeting and best wishes.

I also have a letter from J. Perry Elliott, Indianapolis, Indiana, who is generally at our conventions. (Letter read.)

Likewise a letter from W. L. Bailey, Esq., Jefferson City, Mo., which I will read. (Letter read.)

Mr. Bailey was injured by a gunshot wound and came near losing his life; but for that he would be here to-day.

THE PRESIDENT: Last year he said he would come if he had to pawn his camera to get here; but it has really happened that he cannot come.

We will now hear the report of the Executive Committee for the year. The Secretary will please read it.

## REPORT OF THE EXECUTIVE COMMITTEE, 1873.

TO THE OFFICERS AND MEMBERS OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION, ASSEMBLED AT BUFFALO, July, 1873.

LADIES AND GENTLEMEN: At your annual meeting held in St. Louis May, 1872, it was your pleasure to elect the following as your Executive Committee: William H. Rhoads, A. Hesler, V. M. Wilcox, J. H. Fitzgibbon, and W. Irving Adams, and A. Bogardus, Albert Moore, and Edward L. Wilson, *ex officio*.

Since then we have held ten regular and special meetings, of which we beg to submit our minutes and the following report:

The year that has past has not been attended by any matter in particular which imperilled the interests of the fraternity, yet there have been two or three cases wherein great watchfulness was necessary, and where it was thought best to take counsel. We think that the immunity from harassing legal contest that you have enjoyed during the year is owing to the caution which has been exercised in your behalf. We cannot predict how long this pleasant state of affairs will continue. Yet while we fear that storms are brewing, we trust that the wisdom of our successors whom you may elect will be able to do much to avert them, or at least to protect you from evil results. These matters lie so much with yourselves, that we can only mention them now, and await future developments.

At our meeting held in St. Louis, May 12th, 1872, Mr. A. Bogardus was elected chairman of this committee, and Mr. Edward L. Wilson, Secretary.

At that same meeting your Permanent Secretary was authorized to memorialize Congress for an appropriation of $30,000, for the establishment of a Photographic Institute, for the instruction of pupils in the art of photography in all its branches. This duty was attended to; his memorial passed the second reading and was referred to the Committee on Appropriations, where it will lie until next session. We recommend that a circular letter be issued by you, and that copies be supplied to every member to send to the representatives of their several districts, appealing to them for favorable action in this important matter until our object is accomplished.

A system of *life membership* has also been instituted by this committee at your request, the regulations concerning which you have already had published to you. We had hoped to see this matter become more popular, for the reason that the additions which it would make to our treasury would relieve us from great embarrassment whenever matters of vital interest to you all come up, requiring speedy action and some little funds to act with. This, and the prompt payment of dues are matters deserving of special attention by you.

The medals awarded to foreign exhibitors last year have been forwarded, the Scovill Manufacturing Company allowing the use of their dies

for making them, thus saving the Association considerable expense.

The manual of the Association has been issued, including the National Photographic Association scale of prices, which we hope you have all been able to work up to at least.

Mr. Kent's hand-screen has also been made free to you all, with a photograph illustrating its use and directions, sent to each member of the Association.

The matter of raising the dues has been discussed considerably by us; we refer it to you for action. It is one which should have wise consideration.

The Local Secretary at St. Louis reported the close of the very successful Exhibition and Convention at that city, and said the expenses of the Exhibition were $1494.28, and his accounts were found correct, and have been paid by the Treasurer.

At our November meeting we were somewhat surprised to find that we could not hold this Convention at Rochester, but were relieved from our embarrassment by good Local Secretary Baker, who said, "Come to Buffalo," and the change was accordingly made.

Mr. Jehyleman Shaw having obtained a reissue of his patent, we obtained the opinion of counsel as to its validity, a report of which may be had by application to the Permanent Secretary. Mr. Shaw has also made a communication to this committee, which we respectfully refer to you for action, it being beyond our province to consider it.

At this session you will have opportunity to test the changes made in the regulations of our Association meetings. Our Association is at that age now which should enable it to maintain its dignity, and to demand that all who share its great privileges should also contribute to its support. In the years that are gone many of those who are *not members* of the Association, have had their full share of the former without showing any disposition to attend to the latter. It was to end this imposition that the new rules were made, and we ask your support in enforcing them. For the same reason a fee of $10 is charged all those who exhibit articles other than photographs, for sale or for advertising purposes. By this means we increase our treasury, and also head off another imposition that has been practiced largely heretofore.

After the convention at Philadelphia, a bill of $94 was due George W. Childs, Esq., publisher of the Philadelphia *Ledger*, for advertising. Mr. Childs has since presented the Association with that amount, and a resolution of thanks was sent him by this Committee.

You will observe that our treasury is overdrawn, and we feel it incumbent upon us once more to call upon members in arrears to settle. More promptness in this respect would relieve the Executive Committee from much embarrassment.

At our last meeting held in this city, July 14th, instant, we held conference with our Local Secretary, Mr. W. J. Baker, and commend to your attention the care which he has exercised in the arrangement of the matters pertaining to our Exhibition and Convention now open.

The incorporation of our Association has not yet been effected, but we hope that it will be done during the coming year.

We have endeavored to discharge our duties with your best interests in view, and respectfully ask the careful consideration of the suggestions we make.

ABRM. BOGARDUS, Chairman.
ALBERT MOORE, V. M. WILCOX,
W. IRVING ADAMS, W. H. RHOADS,
A. HESLER, J. H. FITZGIBBON.
EDWARD L. WILSON, Secretary,
Executive Committee.

The report was referred back to the committee for correction on motion of Mr. Fitzgibbon, and appears above as corrected and afterwards adopted.

The resignation of E Y. Bell, Esq., was read by the Secretary, as follows:

NEW YORK, July 10th, 1873.

ABRAHAM BOGARDUS, ESQ., PRESIDENT,
AND MEMBERS OF THE N. P. A.

GENTLEMEN: I have the honor of resigning my official position as your attorney and counsel; the same to take effect on and after the 16th instant. Wishing you prosperity and continued progress in the development and elevation of your beautiful art,

I remain, yours very respectfully,
E. Y. BELL.

THE PRESIDENT: Mr. Bell's resignation is before you. What is your pleasure?

A DELEGATE: I move it be accepted.

Motion seconded.

A *viva voce* vote was then taken on the motion to accept. The President being unable to decide, put the vote again; and still being unable to come to a conclusion, called for a division of the house, which resulted

in favor of accepting the resignation, and it was accordingly declared accepted.

THE PRESIDENT: While the Auditing Committee are getting ready to report, if any of the members have any business to bring before the Association, they may facilitate business by presenting it now.

MR. FITZGIBBON: I would like the Secretary to read the programme for this afternoon.

THE PRESIDENT: It will be done before we leave. It can be done now just as well as this afternoon.

The Secretary read the programme.

THE PRESIDENT: We have endeavored to make out a programme for each day, and each session; and propose, as far as possible, to carry it out. For instance, "Skylights: how to Build them and how to Work them." We expect to place before you a full résumé of the entire subject. Such as have not been able to come in person have sent us written articles, which will be read, and then the matter will be thrown open for discussion; and we are ready to hear the opinion of every member present here who can talk about skylights. It will ventilate the matter pretty thoroughly. Each subject is to be opened by one or two prominent men, and then it will be open for discussion to all.

MR. LOCKWOOD: My name was put on as one of the men to talk upon "skylights" through a mistake. The subject I propose to talk about during the session is the "Photometry of Colors in connection with Photography." I have no objection to joining the discussion on skylights. I have no new ideas to advance that I think it would be worth while to state. I would like to have my name stricken from the list.

THE PRESIDENT: I think it probable that this afternoon we may have time for that paper.

MR. LOCKWOOD: I would like to present it rather late in the session.

THE PRESIDENT: I shall be glad to hear from you very much.

MR. SOUTHWORTH: I do not want to make a motion; I want to take a few minutes.

THE PRESIDENT: You can have whatever time you desire.

MR. SOUTHWORTH: Mr. President and Gentlemen of the Association.—I have been asked to interest myself to have our meetings once in every two or three years. I have told these gentlemen, No! we will go to this place, and that, and then we will go to a new place; and if not more than a dozen or two meet here, we will have new members, together with the few old ones that may be with us.

So, I hope, Mr. President and members of the Association, that although we may not have too great a multitude here, still we have a great many new ones; and we shall be like a camp-meeting, moving around here and there until the whole photographic community throughout the United States will join us. I want, therefore, to throw my whole influence in favor of having a meeting next year.

THE PRESIDENT: There will be a good many more here at our next session. There are a great many more on their way, and will be here to-night or to-morrow morning I hope to see not less than seven or eight hundred.

MR. SOUTHWORTH: I did not make that remark feeling that there were few here, but it was in reference to having our yearly meetings continued.

THE PRESIDENT: I too have been spoken to with regard to that point, and it is the universal feeling that we cannot from the nature of our work, adjourn over for a greater time than one year, with advantage to ourselves. I would say we are constantly bringing out new things every year, and we must get together and disseminate.

MR. HESLER, Chicago: I see there is a motion to adjourn. I wish the President would announce that motion carried.

THE PRESIDENT: We cannot adjourn until we get the report. If you insist upon your motion I will put it.

The Association will please come to order, and hear the report of the Auditing Committee on the Treasurer's account. Mr. Whitney, of Conn., the Chairman, will now make the report.

E. T. WHITNEY, Norwalk, Conn.: The committee, consisting of Messers Slee, Clemons, Chute, and myself, have audited the accounts of the Treasurer of the Na-

tional Photographic Association, and find them all correct.

On motion, the report of the Auditing Committee was accepted.

On motion, the Convention adjourned until 3 P.M.

*AFTERNOON SESSION.*

The hour having arrived at which the Convention adjourned, it was called to order by President Bogardus, who said: There seems to have been some misunderstanding with regard to the hour of adjournment. The matter having been left in the hands of the Executive Committee, they changed the hour to three o'clock instead of two, as was announced. As the committee who are to report on the Progress of Photography are not here, I will call upon Mr. Lockwood for some remarks on the subject to which his attention has been directed.

MR. LOCKWOOD: Mr. President, I shall beg to be excused this afternoon for two reasons. One is the talk that I expected to have with members I have not yet had. I wish to get as many as possible to thinking on this subject, not because I have any patent pending, for if there are any new ideas on the subject that I present they are gratuitous. Another reason is, that by some mistake some of my apparatus failed to get here till to-day, and it will be a relief to me if it is delayed, as I have business of other artists to attend to while I am here.

The Chair then called upon Mr. Bigelow to open the discussion on "Skylights," but before he began, the Secretary arriving, the subject was not entered into.

THE PRESIDENT: The report of the Committee on the Progress of Photography is now in order.

Mr. Wilson read the report as follows:

## REPORT OF THE COMMITTEE ON THE PROGRESS OF PHOTOGRAPHY.

TO THE PRESIDENT AND MEMBERS OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION.

GENTLEMEN: The Committee on the Progress of Photography, appointed at the last meeting of the Association, would respectfully report, that while they have no discoveries of importance to announce, it is gratifying to the committee to mention that all of the departments of photography show progress. Some more marked than others, but none are retrograding or standing still. We have been led to hope for many improvements, particularly in lessening the time of exposure, and other matters of equal importance, but the suggestions advanced have not amounted to much value to the practical photographer, at the present writing. We ask your attention to what may be considered some points of interest in the progress of photography.

**Photographic Societies** have rapidly multiplied over the United States, and the more liberal communication one with another produced thereby is a subject for sincere congratulation. Until within a few years photographers had no bond of union, but now almost every State has its society for the advancement of photography; a nucleus around which persons interested in the art can rally and improve their minds with valuable suggestions and experience. Go on with the good work, and let every State in the Union have at least one society representation at the next meeting of the Association.

This National Association has done and is doing much substantial good in the interest of photography. Slowly but surely it has grown, from a small representation of active men, to a powerful body meeting together for mutual improvement, and it should have, fellow-members, your warmest sympathy and support.

**Portrait Photography.**—It is perhaps improper to claim that the past year has witnessed any great advance or novelty in this department, but compare the pictures of the present day with those of two or three years ago, and we feel satisfied that the verdict will be that the average work of America has improved in a marked degree since that time. Art principles are more carefully studied, and greater attention is paid to lighting the sitter. Fewer negatives are spoiled by careless attempts at intensification, and on the other hand a much less number of exaggerated shadow pictures are to be met with. The fine effects of a skilful retouching of negatives is very apparent, and it has done much to elevate the art of photography; but retouching must in all cases be done with a skilful hand, and even then be kept within proper bounds or the pictures will fail to give satisfaction.

**Landscape Photography.**—With the exception of stereoscopic views, this department shows but little advance in comparison with other branches. It is to be supposed that photographers are sufficiently alive to their own interests, but we regret to notice that outdoor work receives but little attention. The subject of

dry plates continues to occupy a host of ardent experimenters who are working in that direction. Various modifications of the collodio-bromide process are strongly advocated both in Europe and America; and there is no doubt but what excellent results can be obtained with the emulsion process, either used wet or dry, with an excess of bromide or an excess of silver, but which is the most reliable is a question difficult of solution. An emulsion containing an excess of silver is undoubtedly the most rapid, but in the present knowledge upon the subject somewhat more difficult to work successfully than where an excess of bromide is present. We trust that something more practical will be developed in the emulsion process during this year.

**Solar Enlargements.**—It would seem as if but little more could be reasonably expected in the way of improvement in this branch. The results are wonderfully successful, which fact has been repeatedly demonstrated at the meetings of this Association. Specimens of American solar printing sent to Europe have repeatedly received the unqualified approval of scientific men.

**Mechanical Printing.**—This eminently practical branch of photography is becoming each year more useful and valuable. Books, magazines, and daily papers are frequently met with profusely illustrated by the aid of photo-mechanical printing. The future of this department cannot be otherwise than successful.

**Skilled Operators.**—As in every vocation of life, skilled labor is difficult to obtain and always commands a premium. Photographers all over the United States are constantly exercised with this subject; high remuneration is offered in many cases, but thoroughly trained operators are not always to be had, and the negative or printing department of the establishment suffers during weeks and months for the want of capable assistants.

The question of a photographic college or school for a thorough instruction in the art has been alluded to in former reports, and it appears to your committee that such an institution properly managed might be of incalculable value to the photographic community.

**Photographic Literature** has received many valuable additions recently, and there is no longer an excuse for any lack of knowledge upon the subject. With the exhaustive works on photography that can be procured everywhere, together with the journals published in Europe and America, readers are kept thoroughly posted in relation to the progress of photography in all its branches.

**Celestial Photography.**—Scientific men have long recognized the value of photography as a most important adjunct in connection with the telescope, and we desire to record that the United States government has made a very liberal appropriation for the purpose of observing the transit of Venus, to occur in December, 1874.

**Mounting Cards.**—American manufacturers have fully realized the wants of photographers upon the subject of cards for mounting their pictures, and your committee take pleasure in recording with pride that, as regards variety of styles, exquisite finish, and purity of paper they are second to none.

**Camera Boxes.**—This all-important subject has received much attention during the past few years, and we venture the assertion that no better boxes can be obtained than those now manufactured in the United States. The great advantage of metal guides and glass corners in our boxes is evident to all who have suffered from the vexations attendant upon the use of foreign boxes having wooden guides and wire corners.

We would also call attention to the beautiful results produced by the sand-blast process of Mr. Tilghman. Negatives of line engravings can, by the carbon process, be transferred to a piece of clear glass, developed, and exposed to the action of the sand-blast, producing a charming picture etched upon the surface of the glass. Recently a *flashed* glass of a dark color has been substituted in place of the clear glass, with excellent effect, the picture being represented upon a dark ground.

Respectfully,

JOHN C. BROWNE,
Chairman.

GERMANY.

When we glance over the results which the exertions in the realm of photography have produced during the last year, we cannot help, in spite of all our enthusiasm for our art, to designate the past year as one of disappointments, for many fond hopes have not been realized, although at first the photographers were sanguine of success. We have no new style, notwithstanding Salomon's new backgrounds; we have no instantaneous portraits, notwithstanding Gutzlaff and Gaensli, and the sacred promise of reducing the time of exposure to one-tenth of the present; we have no infallible dry-plate process, only promises as fallible as the infallible pope. We witness with regret that a man bids farewell to our art who for ten years has worked zealously and successfully for its ad-

vancement—we mean Mr. Petsch—he leaves our fraternity because photography does not satisfy him any longer; because it is not capable of executing his artistic ideas. With still greater regret we see a man suffering under the most severe judicial sentence, because he fought for photography—I mean Edward L. Wilson, who has done so much for the National Photographic Association.

Experience of this kind is not encouraging for others, and we cannot feel surprised if, instead of seeing an increase in the number of those who toil in the interest of photography, we actually notice a decrease. Those who speculate on the stupidity of their fellow-creatures thrive more than those who endeavor to enlighten them.

In this country the interest of photographers centres in Vienna and form for the season the theme of conversation. I do not believe that ever such a number of photographs have been exhibited before in one place as in Vienna, and not only is the quantity enormous but a great deal also is beautiful. From my own personal observation I can only report of the smallest portion. I was present at the opening, but hardly anything had been unpacked, and it will take some time yet before everything is in order.

The American department was (I say it openly), at the time when I was there, a perfect chaos; of Kurtz, Rocher, and others, I discovered not even the boxes, much less the pictures themselves.

Fortunately the Exhibition will remain open until November 1st, and my American colleagues will have time to visit it after the Buffalo Convention has adjourned. I hope that it will be my good fortune to salute many of my American friends in Europe.

Of other objects, our attention has lately been drawn to the efforts that are made to discover the means by which the Denier effect is produced; consisting in a certain softness which interferes materially with the sharpness, and which is obtained without recourse to negative retouch. In the April number of the *Philadelphia Photographer* there is a beautiful picture of the kind, by Mr. Jacoby, of Minneapolis, and the gentleman is also kind enough to state the way how it was made. Our experiments here have demonstrated that there are a good many ways how this effect may be produced, not only in the printing, but also directly on the negative, by placing in the inside of the camera, between the sensitive film and the objective, a plate of very fine ground-glass. Another way is, to move two pieces of glass, one above the other, in front of the objective during exposure. There are certainly other ways and means to produce this effect, but the above-mentioned ones will suffice, and although the pictures look beautiful, still the process cannot be employed with every face, and it should be used with great caution. With us they have not taken.

The question of the use of an illumination before and after exposure has given rise to many experiments. I do not think that this question would have been taken up with so much earnestness if it had not been based upon the authority of Becquerel, for all the world believed in his *rayons continuateurs*. The experiments have proved that, at least in the wet-plate process, "rayons continuateurs" do not exist; *i. e.*, rays which have no chemical action, but there are the rays which continue the chemical action of the actinic rays. Chemical rays did pass through Gaensli's plates, and they acted even after a preliminary exposure. Pure red and yellow light has, according to the experiment of Prumm, no effect whatever. If Becquerel, in his experiments with chloride of silver, did find such continuous chemical action, it is due to the fact that by the exposure to actinic rays subchloride of silver was formed, and this is affected by the red rays.

Particular attention has been paid the last year to the preparations for observing the transit of Venus. It has been decided that photography shall play the most important part in these observations. Germany will equip four expeditions—one to Muskat, on the Persian Gulf, one to the lonely Kerguelen Island, in the Indian Ocean; one to the Aukland Island, south of New Zealand, and one to the northern part of China. I shall accompany the latter, and hope that when I return, in the spring of 1875, by way of San Francisco and New York, I will have the pleasure of meeting again my American friends.

Another application of photography, which of late has attracted a good deal of attention, is the direct copying of drawings. It is the same process which Mr. Walker, in Washington, employs, but it is much easier managed, as the sensitized paper can be bought ready for printing. Our engineers and architects employ this method to a considerable extent.

Photographic literature has, in the stoppage of the "World" sustained a severe loss; on the other hand, "Bigelow's Album for Lighting and Posing" and Anderson's new book are valuable acquisitions. Let us hope that the new year will be rich in valuable publications.

The most important step for the future of pho-

tography is the founding of a photographic college. The idea was first started by Mr. Wilson. The difficulty of obtaining able and well-schooled photographers as assistants will only be removed when the young beginners shall have an opportunity to become thoroughly educated, practically as well as theoretically, in all the branches of this manifold art, and this is only possible in a photographic academy.

H. Vogel.

The President: What shall be done with the report?

Mr. Carbutt: I move that the report be accepted and printed in the regular proceedings.

Agreed to.

The President: The subject for discussion this afternoon is, "Skylights, how to Build and how to Work them." The discussion will be opened by L. G. Bigelow, followed by Mr. Hesler, of Chicago, and Frank Jewell, of Scranton, Pa. I now take great pleasure in introducing Mr. Bigelow to the Association.

Mr. Bigelow addressed the Convention as follows:

The construction and use of skylights for photographic portraiture is a theme upon which many able writers have written much, and which has come up for discussion before every photographic society, probably, of the world; and yet the question of the *best* form has not been wholly decided, for witness the multitude of forms in which they have been constructed within the last few years. Every man who builds has an idea that he knows just how it ought to be constructed to justify his experience in the business, and a new light is seldom constructed after the plan of the old one, and when completed he feels *sure* that it will give *artistic* lighting, and though a deluge may pour upon it a drop of water can never enter. Probably there is not a photographer in this room but knows just *how* to construct a light embodying all the virtues which from his standpoint they ought to possess; and yet how many who have built, find their ideal realized *in their work*.

There are certain principles to be followed in the construction of a photographic studio which ought not to be disregarded, and which if followed will insure a light which may be worked *successfully*, though the resemblance of it to another which may be equally as successfully worked, may be no stronger than that between the highest type of our physical manhood, and the tree-climbing inhabitants of Orizimba and Africa. But the proof that *each* though differing so widely in form, is worked with equal success, teaches us a lesson of strong import, viz.: "A perfect studio does not *alone* make a perfect artist." We *must have* good instruments; we *must have* good chemicals; but that we *must* have a studio of just such proportions, and always a northern exposure, I deny. I venture to say Anderson, Sarony, and others could produce as fine work under two out of three of the lights throughout the country as they now do habitually under their own. They may not, *could* not, do it as easily and rapidly, but do it they would, for they are masters in the study of *light*, and will not expose a plate until the sitter is properly lighted. Generally lights are *large* enough, and by the use of curtains and reflectors the light may be modified and controlled at will. Just *how* these are to be made and used is the question to solve in each particular case, for general principles will not apply here, the *direction* and *form* of light having a controlling influence.

The most difficult light to work successfully is a very high top-light. I was called into consultation where such a one was in use, or rather where they *desired* to use it, for no work had as yet been done, which was qualified to be delivered even in a country town. The light was 12 x 12 feet, quite flat, and 15 feet from the floor, with square angles where the side-walls began at the roof. It was a hopeless case, apparently. I had come some distance, and did not wish to acknowledge myself vanquished, or to discourage the photographer who had been to considerable expense in fitting up the place, and the only apparent way was tried with strong misgivings of the result, but proving a success. The work was so much better than we expected that I will try to explain to you the arrangement, and though I would not advocate the construction of such a light, yet a description of it may be found useful in the management of lights of a similar construction now in use; in fact, do not go into business in any place until you can have a light somewhat suited to the business. A mason might as well attempt to build a brick mansion, with only the raw clay to begin with, as for a photographer to build a business of magnitude from work under such a light. Both *might* succeed, but there are stumbling-blocks enough in the way without making new ones. For the light in question, I first constructed a frame 10 feet high and 12 feet long; it was then covered with white muslin. This was arranged so that it might be inclined forward or backward, forming what we call a swinging reflector. This extended nearly

to the ceiling, and was as long as the skylight. By using this I found there was a strong side-light effect, but not sufficient to balance the top-light Then I had another frame constructed 9 feet wide and 11½ feet long for the skylight; this was also covered with white muslin, and then fastened by hinges upon the side of the skylight *opposite* to the side-reflector first described. To the opposite side cords were attached which ran over pulleys fastened to the top-light sash, which enabled it to be inclined at any angle, so as to exclude top-light without excluding the side-light from the big reflector. Under this light was made some very good average work, except in very dark weather. I said at the beginning of this article that there were general principles which ought to govern the construction of every light however located. It is a rule with portrait painters to represent their sitters in a light, falling from the side, at an angle of about 45°. This gives the best light for the majority of faces, and to secure such a light should be the aim in constructing the light for a studio.

The model light exhibited at the Philadelphia Exhibition was in very good proportions, and almost any desired effect could be produced with it, with ease and certainty. A steep light, about 50° incline, extending to within 5 feet of the floor, and not less than 15 x 15 feet square, is probably a form of light more easily worked and with better results than any other, for small groups and single figures. Such a light is always from the right direction, and even a novice in lighting would scarce find difficulty in producing very acceptable pictures. Lights are often constructed with the top-light inclining toward the position usually occupied by the camera, giving, of course, more *front*-light than in the usual plan where the incline is toward the side-light. Such form of light may be in a few exceptional cases of benefit, but in the majority of sittings a disadvantage, because the tendency to make a flat picture is sure, and in many instances to entirely destroy the delicate modelling which indicates the form of the forehead. There is so much of character in this feature, that the preservation of it is of very great importance in finishing a characteristic and an artistic picture.

The front-light is well enough in sittings of aged people; but by a little care as good results may be obtained under a light of ordinary construction, by facing the subject more than usual toward the side-light, and diminishing the strength of the top-light. A light of fair depth is desirable. By depth, I mean parallel with the side-light, or in the direction usually intervening between the camera and sitter. This enables us to place our sitters well forward, and *under* the light, and still have sufficient front-light on the sitter. Light falling between the background and sitter, gives an appearance of relief to the figure.

A few weeks since I worked a few days with a perpendicular side-light, 12 feet high, and 10 feet wide. It worked charmingly for single figures, and for the Rembrandt or shadow lighting was equal to the best I ever saw- I would not advise the construction of such a light, for it is only adapted to single figures.

In the *Year-Book* of 1873, Mr. Valentine Blanchard gives an account of having made a group of nine persons, in an artist's studio.

Another question of importance is the exclusion of sunlight from your glass-room. For a north light of the usual inclination, there is no better way than to erect a solid screen of sufficient height to accomplish the object. I have tried inside and outside blinds of canvas and solid material, but no system is so free from objection as the roof-screen or shade. Any system which keeps the sun from the glass is, of course, a very great consideration in summer, on account of the lessening of the extreme heat. The way mentioned does this, and does not exclude light. For a south light of course there is no opportunity to apply this system. I believe there is no way so good as curtains, made as easily adjustable as possible, and enough of them to accomplish the object. Another system which is very practical and easily managed where there is plenty of room, is first, one set of white curtains for the light and an inside room, mounted on casters, and covered on both sides and top with sectional curtains of white muslin; the *form* of the room to be as our glass-rooms are usually constructed. It must be high enough for a half or three-quarter length figure. It should be provided with a semi-opaque screen which may be adjusted over the head of the sitter, and another which may be used at the side to increase the strength of the shadow if necessary. This for a south light is the best arrangement which I have ever seen. It is well adapted to an east light during the forenoon. The framework should be very light, but well joined together. It need not weigh over 80 pounds; 8 feet wide, and 8 feet high. It can easily be made to be taken down and set up, as would sometimes be necessary for an east light, if there was not sufficient room for it during the afternoon when not required for use. I think that most photographers fail in the construction of their glass-rooms, because of not giving the matter sufficient thought regarding its size, direction, and specific con-

struction. They depend too much on their ability to do good work under *any* form of light, scarcely considering that if their light is made to embody in its construction those qualities which enable the work to be done quickly and *easily*, that thereby they are putting money in their pockets and honor on their heads; for in this case surely the *best* is cheapest. Good pictures may be made under a very poor light, but only at a great expense of *time;* and *uniformity* is *impossible*. It is no proof of a good light because good work has been done under it. Even after a light has been built, and built on the most approved plan, the same thought and consideration must be made apparent in the curtains and screens with which it is to be controlled.

There is no better color for shades than white, for you are enabled to judge correctly the strength of every light, and the depth of every shadow. For semi-opaque shades, a drab color will never confuse by false impression of the density of your shadows.

With regard to the tempering of shadows by direct light or reflecting screens, I see no choice, provided the source of the light is distant enough to give diffusion, or on the other hand the screen is large enough to answer the same purpose, and is kept at the proper distance. The reflector is certainly the most easily adjusted, and the results are not distinguishable from the effects obtained by direct light, which was lighted by a single large window at the side. The effect was said to be equal to the average groups made with the combined top and side-light. The exposure was 30 seconds with a 2 B Dallmeyer, largest stop.

I mention these facts to show you that good, salable work may be made under almost any light built for the purpose of picture-taking, and to encourage those among you who go forth from the exhibition gallery feeling discouraged, and attributing their want of success to their want of facilities in their business. If you can afford it build or rebuild a light to suit you, but if you cannot, learn to use the light you have to the most telling advantage.

If your light is difficult to work you will find that each time you produce a good picture you are gaining information, which will add perceptibly to the value of your work when the ideal studio you are striving to possess is your own.

There is another pleasure you will gain, also, if you can produce good work under the inferior light. *The satisfaction of overcoming difficulties.* A man *feels better* after exercising *self-denial.* If he produces good work with poor tools, he feels a laudable self-pride, in that the well-directed efforts of his mind had put an edge to his tools, which made them effective. The photographer also, feels better when after a few hours of fog, he emerges into the *cheering* sunlight of a chemical day. He feels better at having detected the faulty chemical, and also because having seen the effect and found the cause, he has added an item of knowledge to his chemical storehouse. Do you go into the fields and see beauty in the foliage, grandeur in the clouds, and pleasure in the sunlight? Does the song of the birds, the whispering of the leaves, and the beautifully colored flowers give you pleasure? Do the sparkling waters which mirror the landscape, the floating clouds which cast their ever-varying lines of shade, and the hills and mountains with their lines of beauty, more graceful than ever artist drew, cause you to feel a thrill of delight and of gratitude? Then you have within you the feeling which with suitable aids will make you a *true artist*, and render your vocation a pleasant and a profitable one. (Applause.)

THE PRESIDENT: I now have the pleasure of introducing to you Mr. Hesler, of Chicago. I hardly think it is necessary; still I take great pleasure in introducing Mr. Hesler; you all know him so well.

A. HESLER, Chicago, Ill.: I do not know hardly what to say about the "skylight." There is so much of it, you cannot tell where to begin. Mr. Wilson wanted me to write a paper. I was not accustomed to writing, or much talking. I thought it would be a good idea, before reading what I had written, to illustrate on the blackboard my idea as to the skylight, so you could form some idea, but to fill up the time, while they send for the chalk, I will read my paper. I have named this paper, for the sake of giving it a name,

## POSING, LIGHTING, AND EXPRESSION.

To go into explanatory detail on this subject would require more time than is here allotted, and abler hands than mine to execute. We all may feel it, and be able to produce the proper result, but it is quite another thing to express it. I will briefly mention a few suggestions that present themselves to me as of the utmost importance, and will leave the rest to the skill and good sense of my hearers.

Much has been written and said on this subject, but it is not exhausted. We are just entering the threshold of the door, wherein lie the hidden

treasures of our art, to find which, *we must* give them our utmost study and attention, and because we have given us the living model and scientific apparatus and appliances, we no less need to know the rules of art; and as this is a progressive age, so improve on the past, that the world will acknowledge us as artists. We need to know what constitutes lines of form and beauty, and it is expected we should differ in our ideas of what this standard may be.

Our chemical effects may be faultless, our pictures ever so sharp, but without proper *pose*, *lighting* and *expression* our resulting pictures will only be stiff, hard, soulless images. Without this soul and lifelike animation that proper care can obtain, and may always be found in every face (be it ever so dull), we fall far short of what our art is capable of producing, and the good to which we all should aim, and to which we all can reach, if we only apply the means placed before us. There is something good, noble, and beautiful in all men; it is not always manifest, but it is there, and only needs our art and skill to bring it forth. To be able always to see this and call it out in others as wanted, is a talent we should covet. We must first cultivate the good and noble in our own breasts, then we can, by artistic care, make our sitters manifest it to us at the proper moment. No arbitrary rule can be laid down in detail for this tact and ART, for art it is in its highest sense. All may, by cultivation, study, and care acquire and use it according to his own taste and judgment. One of our most important aids is a pleasant face *always*, no matter what disturbs within; a *pleasant face must* be presented to your sitter if you expect to have such reflected back to you. We all like to see a pleasant and cheery expression on the face of a friend as we meet them, and how natural for us to reflect it back. If we have a picture of a friend at all, it is this kind of expression we wish to look at and cherish in our memories, and this is what our best and most cultivated customers will exact of us.

How often have we produced a picture of a person, that for sharpness and chemical effect was almost faultless, and sent it out with pride as a gem of a photograph, and have it returned with the sitter, who, with a clouded look, greeted you with, "This is a poor picture, &c, &c." Your heart at once sinks "down—in your boots." You know it's a fine picture and can't be beat. Your sitter claims to the contrary, and declares it is no likeness, a horrid, miserable picture, &c. In one sense you are both right, yet both wrong. As a photograph simply, you are right; as a likeness, reflecting the good and noble qualities of the subject, he is right. Now comes the point where we need art and self-control to go to work pleasantly. Make your sitter at ease with himself, draw out his finer feelings, and, if possible, bring all that is good and noble within him to the surface, and being prepared, you light in harmony, watch and catch the right expression. As a photographer you may be ashamed of the resulting picture, but you have reflected from that face the soul and beauty within. In the first place you gave a fine print, but a dead and lifeless image; now you give out a poor photograph, perhaps, but it is full of life, animation, and soul. Do you doubt which will be chosen and do you the most good, artistically and financially?

Kind words in sympathy, or perhaps a little judicious flattery, do good. Get at the calling of your sitter, and go into his hobby, thus make him in good humor with himself; if a child, be a child; enter into childish sympathies. We cannot too much study faces in all times and places; study the face, its anatomy, and the lighting that will give the most pleasing and harmonious effects. So familiarize yourself with this, that in a moment we can tell what will please or interest. When your sitters come to the chair, make them feel at ease and forget they are being taken; keep up the conversation with them, if possible, on some subject in which they are interested, or place before them some pleasing or amusing toy, watch the face, and when in its best mood catch it in the shortest possible time. Never tell them to sit still, or look at a dead inanimate spot or thing, nor let them know when you make the exposure if you can avoid it. If you fail the first time, don't get out of patience, but pleasantly try again and again until the desired expression is attained.

The moment you tell your sitter you are about to begin, in nearly every case, no matter what the expression or feeling was before, up comes every muscle of the face and body as stiff and rigid as iron, or else a forced grin intended for a smile, that twists the mouth to one side, the eyes and rest of the face do not respond, and you get a dead, soulless picture Many times, after working with a subject until nearly exhausted, to catch him at an unguarded moment, I have at length succeeded, and told the sitter I was through with him, at which he would exclaim, "What! did you take it then? Why, I wasn't fixed; I don't want that; I know it won't be good; won't have it," &c. I have mildly told him to take the proof to his friends, and if they condemned it I would willingly take one when he was "fixed." The result invariably has been the return of the sitter, with the proof, all

smiles, and with, "This is the best picture you ever made." I want so many, double or treble the order first intended. That person is your fast friend and lasting patron.

In studying faces our aim should be to find out what view or light best becomes it. This should be a constant study in every gathering of people that we see; we must search for effects of light and shade, and beauty and harmony of form. When a sitter enters your studio, at once look him over, read him, watch for anything pleasing or beautiful, and when he comes to your chair use all your art to catch and hold it.

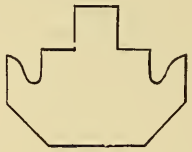
In this matter the portrait painter has great advantage given him over the photographer. To the first a man expects to give his time, all his painter may require to study him up, and if he be skilled in his art he will draw him out, and paint him accordingly; but to us poor photographers a man comes in, "Can you take my picture *now?* Can't spare more than five minutes." In this time you must look him over, and read his character, call out his nobler qualities, and catch them. No man can successfully portray the good and noble in others without first making it the rule and guide of his own life. Let us resolve to do this, and make photography an acknowledged art indeed.

Mr. Hesler continued: My friend Mr. Bigelow spoke of the high skylights, and of using a set of screens; but the effect of this is to flatten the eye instead of leaving it round and clear. If you have a set of screens that reflect the light, and it strikes the eye, it fails to give a good effect, but gives a flat appearance to the eye and face, and you fail to bring out the eye round and clear; and with one single high-light upon it you lose the life of the eye.

I have had occasion to work under high skylights, and small ones, and an expedient that I have resorted to is to use a mirror. It is a good thing to have in every studio. You can throw off the top-light as much as you like, and use the mirror, and hang it on the screens. You can shut off the light from the top-light and use your side-light. You can put it on either side you please; shut off the top-light entirely, or get a little of it—enough to soften your shadows.

In reference to the building of side-lights, I do not think it makes so very much difference in the pictures. The pictures I have been making have been produced under an east light. The easiest and best light is the north light, with a side-light to it; and my experience has been that one important thing—that is often neglected in building skylights—is the color of the glass. Many of the skylights are constructed of blue, green, or yellow glass, neither of which should be used. The photographic ray does not penetrate them but very feebly. We should use white glass, or even a light-blue glass; the chemical ray penetrates this glass, while the other rays are absorbed; the chemical rays pass through.

Then, as to the subject of leaky skylights. It does not cost much more to build one that never leaks than one that is leaking all the time. The form of guard should be made in this shape.



It will come down (the rain) and run to the sash, and meet this gutter, and run outdoors, and the room is always dry. My skylight has not leaked a drop since it was built, and I do not suppose it will in a hundred years.

The President: Are those bars of iron?

Mr. Hesler: They may be either iron or wood. In that way I used one in Chicago ten years, and it never leaked a particle until the fire burned up the city.

Now, as to the angle of light. Forty-five degrees I consider too much of an angle for the light, from the fact that you have too great an amount of space away above the sitter's head. It does you very little good. If the light is at this angle, you can screen it in any way you choose. No light is a complete light without screens, and a good many. I think they should be about a yard wide, and two sets of screens. There ought to be in every room a set, of light, opaque-blue and a translucent white, arranged so that you may roll them up.

As to the rules for lighting the subject, it must be the study of every one, according to his own judgment, by studying the face

and harmonizing the light on the faces that come before you. I do not know that I ought to take up any more time.

THE PRESIDENT: We would be glad to hear you.

MR. HESLER: With regard to the time of retaining the expression, I do not know that that comes under this head.

Some time last winter I tried an experiment. Of course we all want to get a sufficient time always on pictures, at the same time we want to give sufficient time with the shortest possible exposure. I find that by keeping my bath and silver solutions warm, so hot that you can hardly hold them in your hand, and by keeping my developer at the same temperature, very nearly, I can use the developer very much weaker, and the bath may be very much weaker; producing fine, clear results in at least about one-quarter of the time that it would take if the bath was at the temperature of sixty degrees, and never be troubled with pinholes from overiodizing, when the bath is warm. It is only when the solution is cold that you are troubled with pinholes from the overiodizing. Trusting I have served you, I now take my seat.

THE PRESIDENT: I would merely state that there is a gentleman in the room who has thought enough of our gathering here to close his gallery for one week and to bring all his employés with him. It is hardly necessary to mention the name, any further than to introduce to you Frank Jewell, Esq., of Scranton, Pa. I take great pleasure in introducing to you Mr. Jewell, who will address us on the subject of

## POSING, LIGHTING, AND EXPRESSION.

### MR. JEWELL'S ADDRESS.

LADIES AND GENTLEMEN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION: The invitation from our esteemed President to take part in "our practical discussions" suggesting "Posing, Lighting, and Expression," as the subject, was received by me with many doubts and much apprehension that I might not be able to do that justice to the subject which in its importance it demands, for it is, in my opinion, the most important, most difficult, and most beautiful part of any connected with portrait photography; but believing that the least of us may always do something for the advancement and elevation of our chosen, and, on my part, much-loved profession, it is with much gratitude to those above me, whose ideas have done very much towards my advancement, that I present this, my first effusion of the kind, for your consideration, and shall state my views in as simple and plain a manner as my poor organ of language will permit. As a speaker or writer on any subject I was never distinguished for my eloquence or ability, and offering this as an apology for any shortcomings that may arise in this paper, I proceed at once to the subject in hand, and, since we cannot light the model until the pose is made, we will begin with

**Posing.**—Out of many hundreds who visit our galleries for sittings we all know that very few are naturally graceful and easy at that time. There is a certain feeling with them that *now* they must be different, and instead of being themselves, try to be like some one else, whose picture they have seen and admired. With such you can do nothing until you can get them by conversation or some other means to forget where they are or what they are there for. No easy matter, I can assure you. Then again, when we have studied the subjects, and have determined in our mind just the position we would like to give them, when we come to the trial, alas, how often the case that our most sanguine expectations are unrealized, and instead of the beautiful, easy, graceful position we anticipated, it is stiff, ungainly, and, worst of all, unnatural, and a complete failure. In the posing of the model, it should be our first care to see that each and every part of the figure is *natural*, and that the muscles of the body, and especially the neck, are relaxed and easy. Avoid sharp angles and straight lines, and as a general thing, the head and body should turn in different directions, and a gentle curve of the neck will frequently give ease to the whole position. Some attention should be paid to the drapery, and hands, should they show. See that the folds of the drapery are broken and running in contrary directions, and pose the hands in some easy, graceful manner, so that they will not be exaggerated and made to appear as large as the head. Usually the hands are very difficult to manage, and with many had better not be shown at all. The wrist and arm should be curved and not angular. At all events do not make the hands and body the prominent parts of the picture. Remember that the head is the most important, and should receive our best attention, and although we should strive to make the whole position pleasing, we may not do so at the sacrifice of the head. There are always two

sides of a face (strange to say), and in most cases one side will give a more pleasing view than the other. We should make it our business to select the side, and also the view of the face, that will *take* to the best advantage. I will not attempt to describe each and every kind of face, nor how each subject should be posed, but a careful study and good, sound judgment are sure to meet with success in the end. To go into all the details of posing would require a longer paper than I could write or you would listen to. No established rules for posing *can* be given. It is an art in itself, and can only be acquired by diligent study, careful observation, and profound thought. See that the pose is natural; no matter how graceful and easy it may be, if it is such a one as no human being takes naturally, it is simply absurd. Having secured the position in the proper part of the skylight-room, we will proceed to the

**Lighting of the Model.**—This important and interesting part of our art is seldom given that attention and study which, from its importance, it should receive; for what does it matter how nice and clear, brilliant and sharp a picture may be, if it lacks those beautiful half-tones and fine modulations that make fine pictures so attractive. We see many pictures that are nicely manipulated, the focus is perfect, and the chemical effect brilliant, but when we look at the face it is perfectly white and flat, looking as though it had been whitewashed. Such pictures are ridiculous, and may please a few, but photography has obtained a more elevated position than it held a few years ago, and the public of to-day are becoming so well educated in the photographic art, that they easily discriminate between artistic productions and mere machine work.

Before we begin to light the model we should study the face before us to determine which style of lighting we should employ—whether by the old method or in the new, or shadow style—for in almost every case one or the other is *best* for each particular face. (I will say here, that for the shadow style we turn the face towards the strongest side of the light, and for the other mode away from it. Otherwise the lighting is just the same.) Having determined the style of lighting to be employed, we proceed.

There is no part of the human face that should be represented in a portrait as white. There may and must be parts that are lighter, but these parts should never be white. The whole face should be shaded, while the most prominent points, such as the nose, brows, chin, &c., should be touched with light. The retiring parts of the face must be shaded more and more as they retire, but care must be taken that they become not too dark and lose definition. As a general thing, too much light is used (I suppose for the purpose of shortening the exposure), but this is an erroneous idea. The light should come from one direction, and more from one side than the other.

There are three kinds or qualities of light used in portrait photography, viz., diffused, direct, and reflected. Of these three, diffused light bears the most important part, and is the one used in the largest quantity: reflected light, the one used least. A diffusion of light, however, over the whole face would render it flat, and with a lack of vigor. Direct light now comes to our assistance, and by a judicious use in small quantity lights up the prominent parts of the face, rendering the whole image bold and vigorous; and it is sometimes the case that a little reflected light may be used with advantage, but should be used judiciously. Suppose we are now ready to light the face: we bring the sitter well out under the light; now draw the screen overhead until there is a soft diffused light over the whole face; the light coming from one side will naturally light up that side, and will cause a soft shadow on the other, but there is a lack of contrast between the prominent and retiring parts, so that the face is rather flat and weak. We now open a small part of the side-light, well in front of the sitter, and perhaps a little more of the top-light, letting in a little *direct* light, when we see at once how round, bold, and vigorous, yet soft and harmonious the head will appear. See that the extreme point of the nose is the lightest part of the whole face, and is rather a *spark* of light, and the spectrum in the eye is a small sharp speck, and that it comes in both eyes alike; also that the edge of the bridge of the nose nearest the light is a distinct high-light, and ninety-nine times out of a hundred the face will be illuminated in an artistic and sensible manner. The shadow side of the face, while it should be darker than the other, should be soft, transparent, and full of detail, and may be lighter or darker than the background, according to circumstances

**On Expression,** I have but little to say except that it is the most trying and perplexing part of the business, and, taken into consideration with the fact that it is under the control of the operator to a very limited extent, makes it also the most unpleasant. However, the expression is to a certain extent under the control of the thinking and careful operator, and the manner in which the face is lighted has considerable to do

with it; for instance, elderly ladies whose faces are covered with wrinkles and depressions should not be placed too near the side-light nor too far under the top-light, as the farther from the light the less the contrast. Enough of the top-light should be cut off to diffuse the light more evenly over the face, thereby lessening the contrast and lighting up the wrinkles, &c. It is these lines and markings in the face, such as the lines from the nostrils, at the corners of the mouth, and between the brows, which frequently make a pleasant, benevolent face look cross, sober, or sad, when otherwise, with good lighting, it might be all that could be desired. Too strong a light also will be apt to distort or contract the face out of its usual expression, when, were the light more pleasant, it would remain easy and natural.

There is a class of subjects who come to us, who tell us the first thing that "*they* never had a decent picture;" and no wonder, for upon placing them in the chair they assume all kinds of expressions and look like anybody but themselves. Such sitters are hard to manage, and all you can say to them about expression will do no good, for the more you say to them the harder they try. My plan for such is to say nothing to them until I am ready to expose the plate, and then I speak of something entirely foreign to the matter in hand, and which, for the moment, makes them forget what they are doing, tell them to sit quietly, and before they have time to change the expression I uncover the lens, and generally I am successful.

There is another class who come to be photographed, who, when placed in position, sit there just as you put them, and with an expression as if they had been forced to do something disagreeable to them. With such, a word or two of fun will go a great ways to give them an animated expression, and while they are in this fix, now's your time. They will continue to think about what you have said, until you are through, and the result will no doubt be good. And so on to the end of the chapter.

Now, it seems to me that I have taken much time to say so little, and the whole matter may be summed up in a few words. Strive to do the best you can for each sitter. Don't expose the plate until you are satisfied that everything is as near right as you can make it. Keep your heart and *mind* on what you are doing. Think! read! study! and observe! Don't be afraid of doing too much, and success is sure to follow. Only a few years ago I made *very* ordinary work. It was clean and brilliant, but lacked that artistic lighting so necessary to produce work that is now being made all over the country. I thought then I was a *good* operator. Now I find I am just beginning to learn, and the more I learn the more I find there is to know. This Association is doing a world of good; sustain it, and it will elevate you, and when we meet again next year look back and see what improvement you have made.

THE PRESIDENT: The matter of skylights is now thrown open for discussion, and we shall be glad to hear from you all. Gentlemen rising, whom I do not know, will confer a favor by giving me their names. Let us have short speeches and lots of them. Now you may commence.

MR. HUSHER: Mr. President, while brother Hesler was talking about the arrangement of the bars for his skylights, the question came up in my mind, what would we do who have skylights that were leaking, and we did not want to build new ones? That might be a query in the minds of some. I simply wish to make a statement as to the remedy, and that is, to get some strips of zinc and form them in the shape of a gutter, and tack them right on the lower part of this bar, so it will catch the water and carry it off.

MR. LOCKWOOD: I think that any man who works any kind of a light ought to have some scientific reason why he works it so and so. Now, as to those gentlemen who have advanced their ideas of skylights, I would like to inquire why they substitute that angle. They probably have some good reason. I want to get it, and then I will have something to say.

MR. HESLER: The reason was, the light is always nearer the sitter, and with a large group, wherever you place them in the room, you have got a uniform light over them. If you have a high, pitched-up light, when you get these nearer the side-light—the lower edge of the light—the light will be quicker. Another reason: you have a less amount of room to heat in the winter.

MR. LOCKWOOD: I believe the day is coming when photography has got to be worked on scientific principles, and no one except those who understand the science of the business can make good photographs. Although there may be good reasons in their way, they to me are not palpable reasons, and I yet shall ask for a scientific

reason for a flat light. If any one can give the answer, I want to get it.

THE PRESIDENT: I am glad we differ in these matters; that is the way to bring out the truth. Let us hear all sides. If we all agreed we should not learn anything.

MR. HESLER: I do not want to take all the time. If any one wants skylights at an angle of fifty or ninety degrees, I have no objection to their having them; I only offered what I considered the best. The light should strike as flat as you can have it, and a low skylight is the easiest to work, as a rule, for you have a pretty uniform light. We know in cloudy weather a skylight will not work as quick as a side-light will. Even in a clear day it will work quicker when the skylight is flat and no sun on it than it would on a clear cloudless day. The side-light is right the reverse, and works much quicker in a clear sunny day than in a cloudy day. The reason is, when the sun shines against the side-light the light is reflected back to the side-light, and thence into the room. If we have a skylight placed at an angle of forty-five degrees, we get the light from the skylight. You want a good deal of side-light in cloudy weather, and then it will work as quick away from the bottom of the light as it will if it is a flat light.

MR. GILLESPIE: There was a question arose in my mind, in reference to the arrangement of that light, whether the direct rays of light passing through the skylight travel at right angles with the pitch of the light, or otherwise. If they do, then there can be reasons assigned for a flat light, as the case may be. It is a question which has frequently bothered my mind, and which I confess I do not understand. The direct rays of light you speak of, with which you light the sitter, as to the direct light or the diffused, whether that light passes through the skylight at direct angles or at right angles with the pitch of light, or otherwise. I would like to have the question answered if there is any person to answer it.

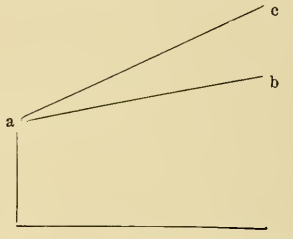
MR. LOCKWOOD: I think I can answer that question, and I think when Mr. Gillespie goes home he can satisfy himself of the truthfulness of it.

Direct rays of light, upon striking any body, whether it be water or a solid body, always diverge.

Those of you who have practiced the putting of a stick in water may notice that the stick appears to bend towards the perpendicular. The more solid the body through which the rays pass, the more the rays diverge. That is the only reason I oppose a shallow light. I have got an idea, and I will make a diagram on the board to illustrate it. You can ask me any question. I came here to learn, and came a good distance, too.

THE PRESIDENT: I would state that Mr. Lockwood is from Ripon, Wisconsin.

MR. LOCKWOOD: Suppose this to be the figure representing the outline of the room.




Suppose the line *a b* represents the angle of forty-five degrees. To my mind it is objectionable. First, it admits direct solar rays, which are a nuisance to photographers. Those who do not believe it can try to take a picture out of doors. In addition to that, it admits heat rays, which are objectionable in photography. These are the two scientific propositions which I would stick to in any argument.

Now, gentlemen, I want to know if you can tell me the difference between the light in this pitch and the light from one of this pitch. Supposing this point *b* runs as high as *c*. What is the difference in these lights? Suppose this runs up high enough to exclude the solar light, except in the longest days in summer. Can you tell me the difference in the chemical property of the light? That is a defect flat lights must have from some scientific reason. I want you to tell me the difference. When you can tell me the difference, as I have said, I can tell you the result of my experience and practice. That is one reason why I would like to know.

That you may have something to think of, I will say this, and any one may ask me any question and I will answer. The steep light excludes the solar rays, and they also exclude the heat rays. That is one very essential point, especially in warm weather. In addition to that, we get nothing at most except actinic rays, of which light is composed. Those who have studied the composition of light know that it is composed of red, indigo, purple, and so on, several well-defined colors. All of them are blended in the white light or direct solar light, but in the reflected light which we get from the north, from skylights which exclude the solar rays, we do not get heat so much, and we do not get the red rays that we get in all flat lights.

Now this time last year I went to Mr. Shippen's gallery; he has a very flat light, I should think at an angle of 35 or 40 degrees. I asked him, "Do you like that kind of light?" He says, "It is a splendid light." "Then why," I asked, "do you use your curtains to cut off the light? You admit the light and then cut it off; I cannot see the philosophy of that" The gentleman may say it is to get certain effects, but he never gets the value of the curtains. They sell at sixty dollars or more, according to the size of the skylight. It never was any invention, so far as concerns the curtains, and they are a humbug, because they undo what you attempt to do in the first place. That is the point (Applause.) Suppose a man has a steep light; if the light runs to this point *c* (indicating), supposing the sitter to sit here, you find the face is nicely lighted away from the light. I have some photographs made under the skylight without any kind of a shadow. Of course they are not the best that can be made, but I am not ashamed to show them to any of you, and those who think that pictures made under that light are flat are mistaken. I expended last year three hundred dollars in travelling through Illinois, Wisconsin, and Michigan, visiting the galleries, to get at the ideas of pitch of light, and have built at a pitch of 65 degrees, and I would say if I were twenty years in the business that I would build at 65 degrees, so steep that you get none of the heat rays, whereas, if you have a flat light 45 degrees pitch you have all sorts of rays and all sorts of screens to cut them off. The screens can be entirely done away with. That is my proposition, and when you want to discuss it on scientific principles I am here. (Applause.)

Mr. Southworth: Mr. President and gentlemen, you will excuse me for any remarks controversial in this matter. I had intended, before I came here, to make a few remarks upon lighting the face. I have arranged in my own mind a little of my habits and practice, and I will tell you what I do and what I should do in the first place.

I understand perfectly well that instead of our being able to control our lights, that nine-tenths of the photographers before me have not such a light as they want, that nine-tenths of them are between high brick buildings—wide, high buildings on one side and high buildings on the other side, sometimes on three sides—and with a little means they have adapted themselves to the position in which they are placed; they have cut such a hole in the roof as they could, paid for it, and have gone to work to make money, and that we have had any control of our lights I deny *in toto*, and if I were to ask for a vote, nine-tenths would rise and assent to my statement. I built the first skylight in America. I went into a room—it was an attic room—that had a passably steep roof with 12 feet flat on the top covered with metal. It was 45 feet long and 21 feet wide. I went in, got the privilege of doing what I chose in the room, swept the room out; overhead the rafters and everything else were left exposed. I put in, 18 feet above the floor, a 12-feet square light, about the centre of that roof. I did the best I could do. That was in 1842. I was not satisfied with it, but did the best I could. I went to work with it, and under it I made my pictures. It was a hard light to work in, but I could make just as good pictures in it as in any light I ever saw.

What is the philosophy of arranging a face under the light? What is the first thing to be done? The first thing is to admit as much diffused light over the whole face as you can; I will say pretty near as much as the eye will open and shut comfortably in, as will not affect the eye at all,

or oblige you to close it. So that you can open the eye naturally; so that it shall not make you blink or want to look down. You want a light that will be diffused over the whole face and figure.

The next thing to be done. In the next place a diffused light will not give you shadows; it will not give you roundness; it will not give you any relief; it will not give you form, because if you could light everything here in this room, all exactly of the same strength, it would be just like a piece of white paper, there would not be anything like form to be seen here. If you light the form of the column on the wall just as light on this side as on the other there will be no shadow there. If you light the centre of it as much as the edge you will not see any form at all. Remember I am not speaking of the face particularly, but it is for the sake of illustrating the chemical effect, making the light diffused in the room natural and comfortable to the eye.

Now we come to the next step, which is to light the face; I increase the light so as to make the shadows fall. You see as I stand here the shadows, somewhere here; the light is not quite uniform; as I turn around it goes away again; you see the diffused light.

Now a remark has been made about the light falling at an angle of 45 degrees, and as to the pitch of the room. The pitch of the room I do not care for. You may erect a skylight just as you please, make it flat or pitched like a roof, you cannot tell the difference in the operation for the world, and there is no difference. So we will not talk about that. When a gentleman wants to do something else, and exclude the sunlight, then it becomes a matter of difference. He should not have the sunlight there at all. He should have ground-glass in his skylight, no matter where it comes from, north, south, east, or west, and then he can work it. It is diffused by this ground-glass in every possible direction, except the ground-glass has a semi-transparency.

Now I come to my light after placing the sitter so the light is diffused. I open the light for forty-five degrees usually. Why use that angle? Why not straight up overhead? The reason is, that I want to show these lines of the brow, these lines of the nostrils. I want to show the shadow falling off to this direction so as to give the shape of the nostrils. I do not want to show it as if I were standing under you and looking up into your nose. I do not want to throw a shadow on the noblest part of the human countenance. What is that made for? What is the difference between the lion's head and the snake's?

Now I want to show these forms, this brow and these nostrils, or I want to show that from the corner of the mouth. I want to show that beautiful eye. I want to show the lines just as nicely as they can be shown, and give as much better picture as we can give. I want to arrange my lines. Here the light comes down and strikes; here on one side it is a little stronger. It throws light enough to make this shadow appear a little. Here it shows the same strength of light, and here the shadows going off gradually, not charcoaly, not inky, not muddy and dirty, like your shadow pictures; the most hateful things that were ever met with. There is no such thing in nature. You may take it from the darkest place, or the darkest place you can make—not building out into the broad sunlight. There is not a face you can make appear like one of these pictures, because the moment you see that face the light goes up from the shadow part, all warm and light. I know that is the clear part of it, but shadow must be represented and color also; if it does not represent it, it is like a piece of sheet-iron which has not been worked, and to give this effect in shadow pictures it is smoothed over, and there is no light there.

Now I have arranged my light. I have got all the light necessary, but then I don't keep it always forty-five degrees. How shall I change it? By changing the sitter. If sitting here does not suit, I get a sharper angle here, and further off a less one.

Now if it happens that the light is not proper for the face, I have my room so large as to go to the other side, *instead* of placing my camera in that direction to take the shadowy side. And what shall I call one of those shadow pictures that we see advertised "shadow pictures?" *Rembrandt*

*style?* I would like to know what the Rembrandt style is. Have we ever had a good copy of a Rembrandt? Did he make such pictures as these? Not a bit of it. Now the idea of the time is to place your sitter in a position where you can get all around him with the camera, and if on the wrong side, and you want a certain light, and you want to take some pictures in the shadow, and get other lines, move your camera; go around him, almost entirely around him.

It was hard work to make pictures in our room; we never knew where our camera was going to stand, or where the sitter was going to sit, when the sitter came into the room. We arranged the sitter as well as we could, according to our judgment, the way the face ought to be represented in the picture, and when we had got the place to sit ourselves there it had to go.

That, then, to sum it up in a very few words is my philosophy. My reading and my observation is simply this: Have a room where you can *control* your light thoroughly and perfectly. Have a room where you can give as much diffused light on the face, without making it one particle more on one side than on the other, than the eye can bear comfortably, then grade it. Then open your high-light just as you want it. Open your high-light wide enough to make it like the light here, to give this light on the nose and forehead, giving the shadows as they ought to come, just as open as that (indicating), and you have your light right for the subject; and for the different lights change your subject around the room, and if the nose happens to be a short one you have got to manage it, or if it is very long, and if there are wrinkles, your diffused light lights them up, you can see that your high-light places the person further off It will not be quite as high, and they will not show at all. The most wrinkled-up face I ever saw, I had to make a picture of. It took me four days to do it. You may take any ten persons there are here, and there are not as many wrinkles in them all as there was in that one. I learned little by little, and I learned the littles in the hardest possible way. That is the reason I know so little now. It took so long to learn the few littles all the way along.

Now about the way that you should build. You will still have to do as you have done. Probably by and by, if everybody who goes into the business lays out as much as he pleases in it, they can be sure that if they lay out much they never will get it back. If you want to make good pictures, control the light.

Now I want to say another word or two upon rather a serious matter. A few weeks ago I saw in one of the publications a reference to the taking of pictures of deceased persons. This was both important and interesting.

When I begun to take pictures, twenty or thirty years ago, I had to make pictures of the dead. We had to go out then more than we do now, and this is a matter that is not easy to manage; but if you work carefully over the various difficulties you will learn very soon how to take pictures of dead bodies, arranging them just as you please. When you have done that the way is clear, and your task easy. The way I did was just to have them dressed and laid on the sofa. Just lay them down as if they were in a sleep. That was my first effort. It was with a little boy, a dozen years old. It took a great while to get them to let me do it, still they did let me do it. I will say on this point, because it is a very important one, that you may do just as you please so far as the handling and bending of corpses is concerned. You can bend them till the joints are pliable, and make them assume a natural and easy position. If a person has died, and the friends are afraid that there will be a liquid ejected from the mouth, you can carefully turn them over just as though they were under the operation of an emetic. You can do that in less than one single minute, and every single thing will pass out, and you can wipe out the mouth and wash off the face, and handle them just as well as though they were well persons. Arrange them in this position (indicating), or bend them into this position. Then place your camera and take your picture just as they would look in life if standing up before you. You don't go down to the foot of the sofa and shoot up in this way (indicating). Go up to the side of the head and take the picture so that part

of the picture that comes off from you will come off above the horizontal line. So it would be as if in a natural position, as if standing or sitting before you. There is another thing which will be useful to you in carrying out your operation, and that is a French plate mirror about four feet long and not very wide. This will suit some cameras, arranging the mirror so the reflection of the party will be thrown upon it in an easy, graceful, natural way, and then take your picture from the mirror. You can do it with the mirror without much trouble. I make these remarks because I think that they may be very valuable to somebody.

Without occupying too much of your time, I would say I had hoped that from the light of this room in the middle of the day we could just come in here and pose heads, getting the effect of the light by opening and closing the blinds. We can produce effects in that way that will be quite amusing and entertaining. We could do this for hours, watching the effect of the light on the face.

Before the President came in a gentleman was sitting here in as beautiful a light as his face could ever be placed in. It is easy enough to get it again. He changed around and went out there, and I observed his face as he came here. I observed it with a great deal of interest.

The President's picture could not be taken where he is, because the light strikes by—

A Voice: You could get the shadow! (Applause.)

Mr Southworth (resuming): Now I want to say a word as to the taking of pictures. I am growing old, but I do not want my hair taken gray. I want it represented just as it is. I am a little proud of it. (Mr. Southworth has a head of fine black hair.) The first thing you would do would be to light it up. Some of the ladies' heads are lighted up as if powdered all over. It is an old saying and a true one, that it is a long road to travel before you do good work. (Applause.) Now I tell you, you must cover the top of the head in such a way that the screen will not cast shadows. Make the hair up with as much care as you do the face, on the shady side. Make the eye perfectly round and clear, not as if reflected from the screen. Make the eye natural, comfortable; make it round; define every part of it. When you have fully secured this, don't light it with a paint as if a gimlet were bored in it. Let it be that which has the reflection in itself, which shows of its own reflection. Do not make it as if it were done with a gimlet; don't let it be done as if scratched with the point of a cambric needle by a small child that did not know anything about it.

It still comes back to that one point which I have held up to you in one or two short addresses. Learn to look and see the difference under different lights in the same faces. Learn to see the fine points in every face, for the plainest faces in the world are human faces, belonging to human beings. There are some lines that are preferable to others, for they are not all bad. I have often made a picture, and have the person say, "It looks handsomer than the original." I would say to them, "You never saw that." I would go ten miles, and live on bread and water for three years to see a face that was ever flattered at all. There is not a single face ever made up to nature. There never was a painting ever made up to the original, made up to give you all that you ought to feel by looking at the original face. There is a soul and feeling in the natural face, or we should feel that it might be there, even if the person is dead; if they were alive, that it might have been there, for the Almighty made it for the very purpose that you must see it, and you can see it. You must feel that the human face is handsomer than the finest artist ever painted. I say it, I believe I am right. Excuse me for so much feeling.

Mr. Lockwood: I rise to make an objection to my friend Mr. Southworth's statement. He states that there is no difference between the angles of light. I say, gentlemen, there is a vast difference. There is a greater difference between the pitches of light than in the chemical manipulation when you once know it. It is well known that the flatter the light the more parallel rays you get, consequently the more parallel rays you get the more intense are the shadows If you don't believe it, try in the sun

and then in the shade, and see if you don't get stronger shadows than in a steeper light. If you do not, I have to learn something.

MR. SOUTHWORTH: A man would be very foolish to eat potatoes raw rather than to have them cooked. No photographer would take any flat light to work in. If he does not know about light let him study pictures. If he wishes to learn the philosophy of light let him take Herschel, or Smith's Optics, and study from beginning to end. Let him take these; it may take him ten years to understand them if he wants to learn how best to let the light fall on the face, or the way a glass roof is made. The way that is made is this: If you are going to get the rays of the sun through it, you must arrange it so the rays of the sun will fall on it. If the glass is white, the light that is reflected is the same as is reflected from that region. There may be a little more green in one glass than in another, but you will never find it out; and if you can build your skylight as you please, be careful to build your north light. If anybody wishes to see a painter's light, they must see the Washington studio arranged as he arranged it. They will see his light was from the north, a large room in a large lawn, nothing inside, with a great window, and great shutters to slide up and down by machinery, giving tone and range there. Now there is an artist's light, and the first artist in his lifetime; the very first in America. There has been none before nor since to equal him. The philosophy of light is not of much consequence. We can arrange that. We don't control our lights; we are obliged to build and arrange our lights just as we are. We can, if you wish to make the trial, go on to the shady side of the building and take a glass and print through it.

I suggest this as it comes to my mind. You may arrange them in this way or that way, then you may print them. You may tone your prints. Some attempt to do it in printing to bring the prints and the lights all uniform.

That brings me to one point that I wish to say a word about. There has been much printed in the books about blue lenses, green lenses, and clear glass, and some color to give some color on the image. Now I say this: if there is no color in your lenses it is an injury, though if it is blue it is not a great deal, if it is green it may not be a great deal. If you can, improve your printing by placing plates over it in the shade. If you can hasten the time of printing the negative, you can hasten the time in which you can affect the glass put into the camera, also the sitter, and you may put that same thing over your tool.

THE PRESIDENT: The subject is still before you. We shall be glad to hear from any others; let us improve the time.

MR. CARLISLE: It occurred to me, while brother Southworth was speaking, that he somewhat diverged from the subject when he spoke of deceased persons. Rather a grave subject, but I have an idea I wish to bring before you also, and it is in reference to the difficulty encountered from the discolorations about the neck of deceased persons. I have found the use of a mixture of equal parts of creasote and essence of peppermint will entirely change and remove the discoloration, then you can go on and get good results.

I have a word to say about the bath. My first thing to learn in photography was to master the secrets of a good bath, but for three or four years my chemicals worked slow. I supposed it was in my bath, and my attention has been turned to filtering light instead of the bath. I experimented in a small way, with a model skylight, to suit myself. I used a colored glass and ascertained that my prints would be finished more rapidly under certain circumstances than others. In doing so I came to the conclusion that we can filter light. I removed my glass and put in a new one, as white as I could procure, and I am satisfied, on bad days, when everything worked very slow, I have filtered my light, and everything worked quicker in consequence.

MR. KENT was here called for by several delegates, and responded as follows: I made up my mind that I did not know anything about skylights, and would have nothing to say about them. The fact is, the only thing I care for is to get light enough. If I have light enough, I do not care if I have no screens whatever, I can make a

picture. And I will just say to you, while I am up, that I did not expect to say anything at all, but perhaps some of you here have seen some of my pictures, and know what kind of work I produce. If you have, you know their character. They are, perhaps, a little peculiar in their lighting. I have worked six months frequently, and not changed a screen. I have it so arranged that I could if I wanted. I found out that I did not want to. By changing the position of the sitter and sitting him in different parts of the room, and other tricks, I manage to get the picture I desire.

THE PRESIDENT: Do you use back-screens or side-screens?

MR. KENT: I use neither; I sit my subject under the open light anywhere in the room that I please. I think there has been a little adversion to my method of lighting amongst the photographers. I do not wish to urge it at all. If any of you wish to see it, you can do so; I will be glad to see you, and show you my plan of operating.

THE PRESIDENT: The object is not that we shall all agree, but we want to hear the different views; we should like to hear the conflicting views.

MR. KENT: I have no especial views to offer on this subject, Mr. President. I have a method by which I worked; I explained it once before a meeting of this kind. My views have not changed. I am enabled by my method to produce good results, and such results as I require, and others, I suppose, have other methods that to them are equally good and perhaps better. I find we all differ in regard to the manner of using the light. This idea that the light must be constructed this way or that way, in order to make it useful and more easily worked, I think is all nonsense. If you get light enough in your room it is all that is required, then with the experience and skill that we all acquire we can work out the rest. Those who have had experience know that pictures can be made in that way. That is the way I use my screens and make my pictures.

MR. WHITNEY: I want to ask one question. About twenty years ago I was very jealous of brother Hesler's pictures; they were the most beautifully lighted daguerreotypes in this country. The eye was as round as it could be made with a beautiful light on the face. I wondered how he could produce these pictures. I sent out to Chicago to learn as to his light, and his light was some 18 feet high. Now, I want to know why he has changed his mind as to using the light flat or at an angle of 45 degrees.

MR. HESLER: I would say that when I went to Chicago the only room that I could get was a room a little larger than this, with a ceiling about this height. I had to do, as Mr. Southworth says, the best that I could with it. I put in the lights, the lower side 18 feet, the other side 25 feet. Several photographers came into the room and said I would not do anything with that light at all, and that I could not make a picture. I wish I had brought two or three of those daguerreotypes with me, so that you could see them, but they were too bulky; if you come West I will show them to you. I used them, as I said in my article, to practice what I believed, as to the slope of the light and the manner of using it. You cannot lay down any rules that all may follow; every man must work according to the things he has before him. At that time I used a mirror that I could raise and lower and place at any angle; my skylight was very high, so that I had to get my reflected light in that way; I could get no reflected light in any other way in any part of the room; there were no side windows to it, no windows at all except at one end, and it was not practicable to use them. I used my mirror as I have said, and lighted my subject, got my face fully lighted as well as I could, and then produced my high-light with this mirror. It can be done under any light; it is a handy thing to have in any light, I do not care how low the light is. This is a light that is handy to work by. You can hang the mirror on the screen, and it is a splendid thing if you use it right. I like to use one, especially if you have not got a north light. Except when you have a north light, especially in country towns, where you have not so many advantages,

* A photograph of Mr. Kent's hand-screen has been sent to every member of the N. P. A.—E. L. W.

green glass is one of the best things that you can have. If you have white glass in cities there is a good deal of flat color, and where you want to get pictures in dark days, especially about Christmas time, green glass is very hard to work; it gets full of dirt and works very slow. At such times I want a clear, white glass.

MR. VEEDER: I am an outdoor worker, and know nothing about your side-lights and skylights, but from the remarks made on the subject, the question comes up in my mind if I were going to build a skylight which would I prefer of the two, the one at 45 degrees or the other at 65 degrees. It seems to me I would prefer the one at an angle of 45 degrees for this reason, that I would be the master of the light, and I could shut it out if I wanted to. On the other hand it seems to me the light would be my master in many cases; in the first case I would be its master under all circumstances.

MR. HALL: My venerable friend Hesler, trying to explain, in relation to his light, made an allusion to an important subject upon which I have had occasion to differ with him before; now, I believe no one has mastered it either way, and that is the substituting of heat in your chemicals for the length of time allowed in the exposure.

He claims, I believe, that some 90 degrees or 100 degrees of heat will lessen his time about one half in exposure. Now I cannot see myself how heat is going to substitute light, and as I have said, I have differed with him on this subject, but before even expressing my own views on the subject I would like to hear as to it from others.

THE PRESIDENT: This subject is quite interesting, and if there is anything more on the subject of skylights I should like to hear it. Let us exhaust the subject.

MR. KERN: I am not good at talking, but will go to chalking, and get from you some few ideas in that way. I want to ask a few questions; I am not going to explain. I merely propose to ask a few questions.

Suppose the light is obtained from a skylight at a pitch of forty-five degrees, and I have a screen to keep out the light, I want to know if I run it at that angle (indicating a greater angle), whether there would be any difference in the light, or having it down here (indicating a lesser angle)?

MR. SOUTHWORTH: Not a particle, unless you have ground-glass.

MR. KERN: Suppose you run it up?

MR SOUTHWORTH: You may extend it higher than that; it will not make any difference; you get no more light. In your room you can go only ten feet any way; you cannot get any more light than that will give you. You may raise it up to twenty feet, or you may make it ten feet above, it will still give you ten feet in the room.

MR. CHAMBERLAIN: It seems to me that most of our brothers prefer to have a north light, and I think if the facts were known it would be found that six out of ten in this room do not have a north light; that is my idea of it. You cannot all have a north light. I have a northeast light.

Now there is one point I wish to ask about with reference to these steep lights, and as to the difference in the light received from a light at forty-five or sixty-five degrees. My idea is that a light of sixty or sixty-five degrees is much the best; one reason is this, for comfort. We want to make our rooms as comfortable as we can for every one. When we buy any article we get it to suit ourselves; when we build our rooms we want to make them as comfortable as we can. Now my idea is that with a low light the room is from ten to twenty degrees warmer in summer. We should have our skylight just so that the sun will strike it.

MR. WILSON: I do not want to take up time in talking on a subject of which I know very little, because I confess I know very little about skylights comparatively. I think if we were to study the theory of light itself as well as the management of the skylight, we would do well.

You must remember while posing a sitter that all rays of light travel in straight lines, and all bodies, the subjects which we photograph, are more or less absorbents or reflectors of light; and that persons with shiny, sweaty faces, or ruddy complexions, will reflect more light than persons with pale faces, because pale faces absorb the light.

Now the reason why the light is more

diffused under a high skylight, made in the way our friend Lockwood's is, is because the light travels further and meets with more resistance, therefore it is diffused more. I do not know how I can illustrate this better than by giving you a homely example.

You take a common watering-pot and take off the rose, and the stream of water goes out in a body. You put on the rose, and it causes the water to flow in little streams and scatters it. The same effect is produced on the light coming through the atmosphere; the atmosphere divides it, scatters it, diffuses it. We take and strike the surface of water gently and you will drive the water in all directions, or according to the direction of the blow. So it is with light. It comes through a steep skylight, and it has to pass through the atmosphere to get to the subject, and the farther it falls the more it is diffused.

I think you will bear with me if I give you another illustration. When you come to light your sitters, you will find it a great deal to your advantage to know these things. I have been in the habit of using homely illustrations, and am in favor of object teaching. Now what has object teaching to do with this? Why! when you come to look at your sitter you should observe whether you have a pale face, a ruddy, shiny, or a greasy face, and you should recollect that the one will absorb the light and the other reflect it. So you will have to study your faces to know how much light to give in each case. You want to know how to get enough light, and not a great deal of light, but the right kind of light, on the subject. Remember that light travels in straight lines, and that even the atmosphere will drive it from its course. That is the reason why a high skylight causes more diffusion of the light, and gives softer results than a low one.

MR. CARBUTT: I have built a few lights in my time, and have felt a great interest in the discussions which I have heard, and it recalled to my mind the form of a skylight that I had seen, and it is this: it is a foreign one, and the one which I built in Chicago. There I had to build my light to suit the circumstances; it was in the first floor. It was entirely surrounded by buildings, and I had no clear light from the sky, as it were, and in order to get the light I had to whitewash the walls, all around me before building my skylight.

I made a theoretical light and drew it out on paper, and that is my idea; whether it is true in philosophy or not, it has worked out true in practice. Instead of building my side-light straight I put it at an incline, inclining into the room fifteen inches from the perpendicular, from the base, nine feet six inches in width. This was about twenty-eight degrees.

My theory was that I was making use of a large angle of light. I worked it first without, and afterwards with screens, because I had so much reflected light that I had to control it. I had to construct the other screens of four sizes, so that I could draw them to either end of the room and watch the light on my sitter. I could thus control the light and work from either end of the room.

An artist in Paris, I forget his name—

MR. WILSON: Reutlinger?

MR. CARBUTT (resuming): Yes; he has a light very much of that shape. He is on the top of a building, and he is troubled with reflection. His light is subdued with green glass, and it is pretty much of this shape.

Now this is what would be called a long-angled light, in which the light is all diffused, and in using the long working lines you have a slow-working tube and you get a quick-working light, and one in which the rays of light are all perfectly distributed. Such a light as that may have been seen by some who are here present. I have made pictures under it before taking the curtains up. I made pictures which I never before or since have seen equalled or surpassed.

MR. LOCKWOOD: I would say my light works quick, two seconds of time on certain kinds of complexion, whether it is a long-focussed light or not. I should differ with brother Carbutt on the angles.

It must be strictly borne in mind that light in striking glass is diverged; it does not travel in parallel rays. You will find it out in practice; it is good in theory, but not good in practice. That is my objection

to it. Those who think a steep light does not work quick are much mistaken. I have made pictures in two seconds with a Voigtlander lens, using the second stop.

Mr. Webster: Although it is not very opportune to this discussion, I want to relate a little circumstance which occurred in our city, to fortify the remarks of Mr. Wilson. A gentleman thought one great difficulty he labored under was the climbing of so many stairs, and the idea occurred to him if he had his operating-room in the first story of his building he would obviate all the difficulty. He put in his 12 feet skylight, and I want to say to you that he was six months before he discovered that he could not coax that large volume of light down through a trap-door.

Mr. Southworth: Suppose this to be a square of light falling on this object. It is bent, emerges, and then passes on in a straight line; or supposing there were two glasses, it could be made with two glasses, and if the light was made to pass through, the rays would be bent a very little (indicating the point of contact), and then pass still on in a straight line in that direction to that one, and to this one the rays would come down here, and coming from all directions, the rays of light passing through here are bent a little, so in passing there they are bent just a little, and then pass on straight in this direction.

Therefore, following out the law of light, a ray of light falling in this direction upon this, would be bent here and pass away here. Suppose that line is equally bent. Here it is 10 feet and here 10 feet, and then that is all the light you can get. There is just as much as this will make if you will swing it up in this way, but if you extend it the light will strike by.

Mr. Hovey: I am only a beginner, I may say, in the business. What little I have had to do with the light I think agrees with the ideas advanced as to the flat light. Mr. Southworth has given some illustrations about light passing through glass, and he explains how the plane of light is bent. On that point I differ with him, and say that rays of light passing through a pane of glass at right angles are not affected at all; they pass directly through; if the glass is an inch thick it goes straight through it. If it comes at an angle like that then it is bent up in this direction; when it meets the glass at a right angle then it passes straight through, and generally each ray of light passes through the glass in the same plane at which they strike the glass. If it strikes here it is bent in the same proportion, and then passes on through, but it leaves the glass on this side at precisely the same angle as on the other side.

Now I am working a beautiful light in a car; it is 12 by 30. I use a light 12 feet square; in front is the reception-room, a small room; it is a box. I have five feet taken out between that twelve and the remaining part of it. The dark-room is made so as to occupy but small compass; the room is 6½ feet in width, 9 feet in length, and it is 7 feet from the floor of the car to the light. It starts at that light from the side of the car and runs to this height (indicating), and runs at this angle (indicating); the remainder comes down like this; of course it is only 12 feet across. The side-light is constructed of two widths of 20-inch glass, making 40 inches of side-light. Now, I found that by using ground-glass I got my diffused light, and got the light all around the sitter, with the screen nearly two-thirds off. If I want to get what I call a direct light, a bright light, one that brings out the sharp points of the cheek-bone, and a light that will give the bright spark in the eye, I am obliged to take two-thirds of the top off, for all that I am using ground-glass. Now I have tried that, and I have made a wheel, I call it a wheel, that will throw the rays of light about the size of that line (indicating). Suppose that you are looking right square at the light. I have made a big wheel, or had it made, that touches the corners of my light in that way, resting on rollers (indicating). I have blocks with rollers, and make it move easy, and have little pieces of different stuff set on all the way across; six inches across, nine inches in width, and tipped at an angle of two inches at the top, made perfectly stationary, painted white on the top. The rays of color almost all redden on the lower side. I have got a rope hitched to one side to pull it round. By the way, I should say I am

working a southwest light, judging from the way my car stands. I turn the back of my lens towards the rays of the sun; no matter where they come from, I get the very soft sort of ray of colored light in my room. Ground-glass I find, instead of having a smooth surface on the lower side and merely stopping the sun's rays, it gets into the shape more like diamond points, no two of them reflecting the light in the same direction. They are sending in the light in a thousand directions, the rays the size of the end of your finger, consequently you cannot get a direct light from that. We all know that the effect of their being cut up in that way compels us to screen off two-thirds of it. I found if I had plain glass in the place of the ground-glass I could do better work. That is all I have to say.

Mr. Hesler: I want to say one word with reference to the colors of glass. Blue glass has been recommended and tried by some. I would say I once put in a blue glass light. It worked very beautifully, but I was obliged to take it out. I think if we could get glass for photographic purposes very slightly blue, or a milky blue, just to prevent the rays of the sun from passing through, that would be the best we could have made. I think if proper effort was directed to it, we should reduce the time for our sitters, and make a great advance in the progress of our work.

Another thing. In the experiments I made last winter in reference to photographing the prismatic rays of the solar spectrum, I found, and it is well known, that in a dark, totally dark ray you meet the violet, which is the chemical ray. A thought has been suggested to me. Might not some inventive genius in this assembly get up some sort of experiments so as to have only the actinic ray, so as to have the photographic profession benefited in this way?

Mr. Richards: I have an idea. What is the difference between the side-light and the skylight? The more you raise the light the more you advance and extend this line; the less skylight you have, and when you extend it far enough you bring the side-light to where there is nothing of it.

A Member: I wish to say I have an idea as to a skylight. I do not know that it is practical. If it is, the photographers of the country should have the benefit of it. Let us talk the thing over, at least. The idea is this, to have the lower edge of the side-light hung on hinges. Every time I see a camera, I see that the lower edge is on hinges. Would it not be well to have the same appliance on the side-light. The other three sides I would have arranged with pulleys, so I could lower or raise the light accordingly as the sun was higher or lower in the horizon. I have worked several skylights, but never have found a skylight I wanted. The sun shines through the skylight because the skylight is so flat. If the sun strikes it you have necessarily to screen it out. You never want the sun to shine through the skylight. As to the management of the skylight in the winter-time, my custom is to lower my light. The direct rays should pass right over, and not strike the glass. If this care is taken, you never have its annoyance by its reflection from off the furniture and everything else.

I don't know that this could be made practical. I believe if such a skylight could be arranged it would come the nearest to satisfying you. I have lowered the skylight so the light would pass under it. I don't care whether I have a side-light or not. If I wanted to work from the south I would do so. Have the light in the face of the subject. If I had the heavy lines I would have some screens and screen the light, bend it and reflect it on my subject, or turn my subject around and work the other way with the light, and have the light from the skylight answer the same purpose.

Mr. Nimms: Mr. President, something has been said about the use of green glass in skylights, and as to the difficulty of keeping it clean. My skylight is glazed with plain glass. I use green glass shutters, turn them at any angle I please, have a plain skylight in the room, and plain light from the sky if I please; or I can shut them up if I please, and handle the whole of them with one lever. I have a ground-glass light and a plain light, and I can use either as I please.

The President: The gentleman has spoken of his skylight and the manner of using it as a bellows. It reminds me of the

first skylight I ever saw for taking pictures. It was in a granite building on the corner of Broadway and Chambers Street. It was a good many stories up.

MR. SOUTHWORTH: Mr. Moran's?

THE PRESIDENT: Mr. Moran's, I think; I am not positive. It was arranged with a crank to turn. You could always have your background just where you wanted it by just turning it around to suit the light. You could at will get the light from any point of the compass. I don't know whether it was ever copied. It just struck me, remembering that light, that—

MR. CHAMBERLAIN: I expect the principle was much like that the monitor sprung from.

THE PRESIDENT: Very likely.

MR. SOUTHWORTH: I remarked at that time that Mr. Moran made the most perfect pictures that I ever saw.

MR. HALL: I would like to talk a little in reference to the angle of light. I have been very much interested in what has been said, but I must say that I do not think it makes much difference. It is only as to convenience, and it is as convenient to make pictures at the angle of forty-five as at sixty-five degrees. I don't imagine it makes any sort of difference. It works equally well in both ways, and I do not think it is all-important. I am glad an allusion was made to blue glass. It is well to find that efflorescent light, the light beyond the vision. This is what does most of the chemical work, and that without the heat rays, for the red rays, the strongest heat rays, do but very little. Now here in the northern climate the white ground-glass, in my opinion, is the best that can be used. It diffuses the rays better than anything else. But on the line of the equator and in the southern regions I imagine blue glass is a great deal better. It cuts off a certain portion of the luminous ray, makes it easier, even for the sitters and others. We want the light so essential to do the chemical work.

Some years ago, in Massachusetts, I was employed in making daguerreotypes, and the question of side-lights and skylights came up. I thought I must have a top-light. The one I had was not very convenient. I got a sort of back room several feet from the ceiling. The ceiling was about twelve feet above. Five feet above that came the pitch of the roof. I cut through and put the skylight in fifteen by twenty feet. The pitch was about forty-five degrees, but the skylight came down sixteen feet high. From the foot of the skylight to the highest point of the skylight was twenty-six feet. I think it was one of the brightest lights I ever worked. I am rather partial to high light, if you can get a volume of light, because it diffuses a great deal more than the low light. The low light comes very sharp to the sitter.

MR. WHITNEY: I wish to say a few words in relation to blue glass. I think it is the most important thing that could come before the Association.

About fifteen years ago my eyes were very much affected by the use of cyanide. I went to see Harrison, the instrument-maker, who recommended blue light. At that time, under such circumstances, I procured a blue light, which was very beautiful. I used that light for fifteen years with the greatest success. I recommend you to do that, if it is possible. Procure the blue glass. The only reason it has gone out of use is, because they could not get the color of glass that they wanted, of a deep-blue color, which Hesler alludes to, and which has the effect of producing the death-like hue and look upon the face. Light-blue glass ground on the inside has a most beautiful effect. I have used it fifteen years.

MR. WEBSTER: With the permission of the chair, I would like to say a few words on this subject. My idea is that ground-glass will not do. I advise no man to put ground-glass into his skylight. It cannot be used at all in Pittsburg, Cincinnati, and the other southern cities where they use the soft coal, on account of the smoke thus produced. It renders it useless, in those places where you do not have more than one or two days in the week. Last three months we had two half-pleasant days, and in five months there were only three whole ones. Such glass cannot be used in such an atmosphere. It may be said that you

cannot put such glass in a skylight in Pittsburg. I think the subject is an interesting one, and also very important.

MR. CLARK: Mr. President, we have heard a great many different views with regard to the skylights. Some of them correspond with my former experience, over thirty years ago. I commenced in the old style, as to making pictures. Opened the first gallery that ever was opened in Syracuse, twenty-five years ago. I had a very fine gallery in the city of New York.

MR. SOUTHWORTH: Thirty-nine or forty years ago, Prof. Morse was the first to make his pictures with light coming through two glasses filled with a blue liquid. He thought this would be an important thing, if it could be done, and made a great effort to do it. He then went up to the University and built a lighted room with blue glass. These were taken away and done away with in less than a year from the first time he began. Those who see or practice the experiment can never want to try blue glass, unless we have too much light, for not one takes away from the actinic light; there is no difficulty at all, therefore we use white glass and get all the rays.

MR. WEBSTER: Mr. President, the question of skylights has already been very thoroughly discussed. Yesterday I received a paper bearing upon that point, accompanied by various drawings.

It would be almost impossible to understand it, unless you had the paper and the drawings to refer to it.

This paper, I am very proud to say, came from my brother in Connecticut; it was sent to Mr. Wilson. I do not propose to read it, but only to give you an idea of it.

Friend Wilson's intentions are that it shall appear in our proceedings, published in the *Philadelphia Photographer*, the same as all the other papers. I do not want to consume your time in reading it, because you who do not take the *Philadelphia Photographer* ought to take it, and when you do take it, and the proceedings come out, this paper will appear; and I have no doubt Mr. Wilson will also give us the drawings

MR. WILSON: I shall be very happy, indeed, to do it. The gentleman who wrote that paper gave me my first love for photography twenty-five years ago, which almost makes me a veteran.

MR. WEBSTER: Mr. Wilson promises to publish this and the drawings, and they will appear in the *Photographer* with this paper. I simply introduce it because I feel very proud to learn that my brother thinks enough of the Association even to write to it, and I am sorry that he could not be here with us.

The following is the paper alluded to:

## ON SKYLIGHT CONSTRUCTION.

I send the subjoined remarks, together with a few simple drawings, which may serve to convey a more intelligible idea of the subject under consideration.

"How to build a skylight" is no new thing, and the purpose of this article is not to discuss the subject further than is necessary to point out some of the worst faults and suggest such improvements as will be useful and attainable.

I believe that every photographer will admit that a northern exposure, free and unobstructed, is the most desirable, because the light is more uniform, consequently it is more easily managed. Still, an east, west, or south light sometimes has a decided advantage. An east light for *early*, a west light for *late*, and a south light for dark weather. Of course, I have reference to emergencies. After all, my own experience proves that photographers generally have to take the best they can get, and make the most of it. But there are others who *might* have something better, if they only know what they really ought to have. I have seen some outrageously defective lights, when it was simply the fault of the *liners* (see Fig. 8). Here was originally a passable side-light, western exposure, with an 8 x 8 feet skylight, flat on the roof. Now this was not so dreadful bad, but the *artist* concluded that he must "go for a northern exposure," with the result as you see. Now, he might about as well have sat his "patients" in an old-fashioned chimney-corner, depending upon what light came down the chimney. Of course the side-light took off some of the deep shadow under the eyebrow, nose, and chin, and the reflectors "countered" on the other side; still, so many cross-rays put goggles on all except "pap" eyes, and the best results obtainable were unartistic, because there was no harmony of light and shade.

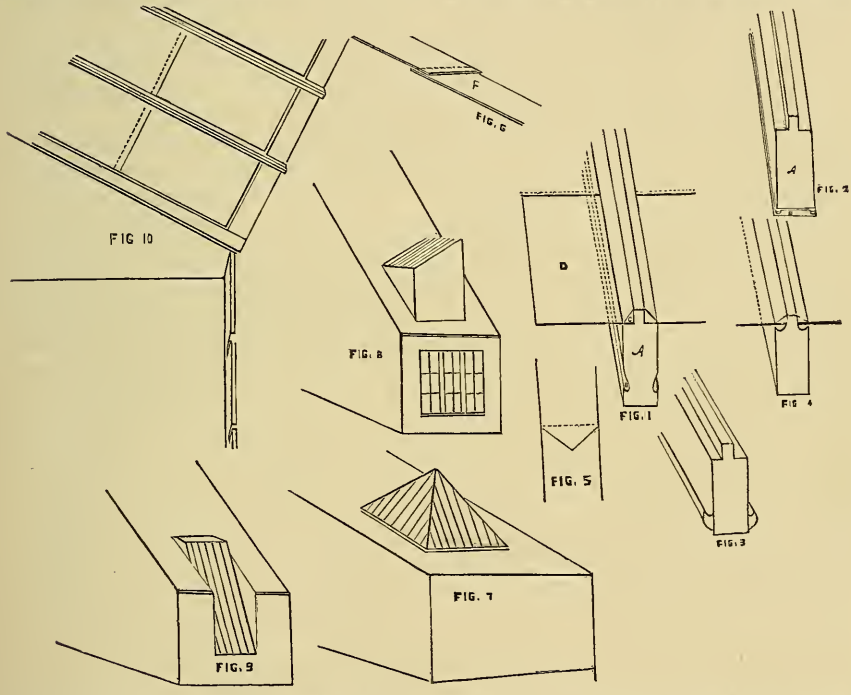
Figure 9 is a drawing of a much better light; and, in fact, for some styles of work it is good enough. Still exactly the same results and effects would have been produced if the light had been laid flat upon the roof and down the side of the

building, thereby saving the disfigurement of the house, and also of the room.

No. 7 is the most common form of skylight (in the Eastern States), but it is by far the most expensive, costing twice or three times as much, and not one whit better than a plain flat sash, laid out at an angle sufficient to insure the rapid passing off of the rain. Three advantages have been claimed for this plan (No. 7) : 1st. Greater strength. 2d. Less leakage. 3d. *More light.*

The first claim may be tenable, although the extra weight of glass vitiates the claim.

The second claim holds good to a certain extent, because the steepness of the pitch overcomes some of the back-flow of the water.




The third claim is all a fallacy. *The opening through the roof determines the quantity of light*, and no amount of flat glass, stood up on edge, or fixed up in any shape, can increase the amount of light.

But I have made special mention of these three plans merely because they serve to illustrate what I have to say further on, and not because they constitute either *all* the bad or good plans, nor do I intend to advise my brother photographers upon the manner of working their light. Every one has his own ideas, and if he is a real artist he will show it in his work, and if he is only a machine artist his pictures will tell. But one of the most discouraging and annoying things connected with the business is a *leaky skylight;* indeed, there is such a strong aversion to putting such a nuisance into a good building, that often a nice location is lost to a photographer, and the rental of a nice suite of rooms is lost to the owner. I have often seen skylight-rooms where, if a sitting were attempted in rainy weather, the operator would need a rubber coat and boots, and the sitter would have to sit under an umbrella.

In 1852 we put a skylight into our gallery—the sash was about twelve by fifteen feet—it was laid flat upon a shingled roof, and the builder said that it was as tight as any skylight could be made, but it leaked and annoyed us dreadfully. During one storm, when a strong wind blew the water back against the laps, we "sopped up" seven pails of water from the oil-cloth under the light in less than that number of hours. But I watched the "process" and saw just how the thing was done. The water, under the influence of capillary attraction, aided by the wind, was drawn up between the upper and lower panes of glass, at the laps, until it reached the *upper* edge of the *under* glass; it then ran along the upper edge until it came to the sash-bar, down which it ran and dropped off upon the floor, drop by drop, all over the room.

I went to the builder, and told him my plan for a remedy; but he said it would do no good; "there never was such a thing as a tight skylight; it couldn't be done." I then asked him to get out some strips, as long as the sash-bars, one-half inch thick and one and a half inches wide, with a shallow groove near each edge, on one side of the flat sides. These strips I nailed upon the *under edge* of the sash-bars, so that the grooves formed a gutter under each edge of the sash-bars, which caught each drop and carried it to the lower end of each sash-bar, where a tin gutter running across the lower end of the skylight received the water and a small leaden pipe carried it off outside. We occupied the same rooms for several years afterwards and never experienced the least annoyance from leakage. Fig. 2 shows this plan. A is the sash-bar, sectional view; B shows the end of the grooved strips. The strips should not be too wide, because the light is diminished by any unnecessary obstruction.

When we put in a new light, we have always had the grooves made in each side of the sash-bars and let the ends of the same run out upon the roof. (See Fig. 10, where the sash is raised up.)

Fig. 1 is a sectional view of the sash-bar. A shows the *end* of the bar; B, the groove or gutter; C, the putty; D, the glass. This is the best plan; and, after more than twenty years' of constant use, I am satisfied that it is the only successful one.

Many other plans and devices have been tried, but all have proved unsatisfactory, or but partially successful. Some have recommended raising the lower end of the upper glass at the lap, about one-eighth of an inch, to lessen the effects of capillary attraction, but a strong wind against the laps drives the rain back in torrents. (See Fig. 6.)

Another plan was, to cut the lower end of the *upper* pane at the lap (as seen in Fig. 5). This was also designed to overcome capillary attraction; but it didn't. Besides, the dust and dirt will settle between the panes, where there is a broad lap, thereby weakening the light. Others placed their reliance upon fresh putty—filling the *lap* with soft putty. This answered the purpose while the putty was fresh, but it soon hardens; and the glass, expanding and contracting with the heat and cold, soon becomes detached from one or both surfaces, and capillary goes to work again.

Fig. 4 is a section of another sash-bar, where the groove or gutter is at the upper edge of the shoulder or ledge, upon which the sides or edges of the glass rest. This does no good, because the water leaves the glass as soon as it comes in contact with the wood.

Fig. 3 is a sectional view of a sash-bar where the gutters are on the side of the bar. This plan was patented five or six years ago, and a model sash is at the Patent Office. But, of course, this is only another form of my invention, and the patent "won't hold water;" nor is it as good as mine. First, the gutters may get loose from the sash and *spill* the water; second, they obstruct the light.

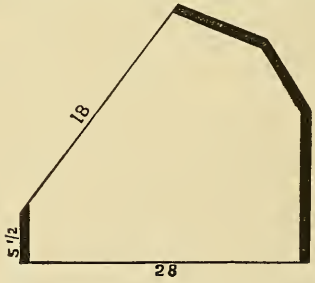
More than twenty years ago, I gave a description of my plan to H. H. Snelling, for publication in the *Photographic Journal*, but it got mislaid and was never published. Mr. S. asked me to rewrite the article, but I did not. I have given my plan to architects, and have prescribed and applied my remedy to quite a number of dropsical lights with uniform success.

Hoping these remarks may prove of service to some who are seeking light, I remain

Yours truly,

E. Z. Webster.

Mr. Bigelow (after making a sketch of his skylight) said: This is a drawing of a skylight which is about eighteen feet square, the walls carried down to the right propor-




tion. The total width of the operating-room is twenty-eight feet. This is for a single light. It is the best light I ever worked under, and I have worked under over thirty, for different parties, for from two to three weeks to six months lately.

Mr. Collins: I would like to ask, if we go and build this light up to the ceiling, on either side of the light, would it leave the room light entirely round, with a room twenty-three feet wide and thirty long? Would you cover this part up (indicating) or leave it open, giving that a slant?

Mr. Bigelow: I should judge it should be left open.

THE PRESIDENT: Decidedly so. While I am up, I would say Mr. Hesler made an assertion about putting in blue glass. Why did he not also remove the blue curtains which he said he was using?

MR. HESLER: The blue curtains I used instead of others, to obstruct the light entirely. They are what is called blue opaque, and no light passes through them.

MR BIGELOW: I think black would be much better, because blue diffuses the shadows.

THE PRESIDENT: Mr. Fitzgibbon has something he wishes to say to you on the subject of Shortening the Exposure. We will hear him now. Then, if you like to continue the discussion, we are ready.

MR. FITZGIBBON: I shall detain you but for a few moments; what I have to offer you is something on shortening the time of sitting.

Mr. Fitzgibbon then addressed the Convention as follows:

MR. PRESIDENT: No doubt most of the members of this Association have heard of or tried the various dodges, as they are called, for shortening the time of sitting before the camera. I have myself tried most of them, and have not met with the success which has been claimed for them, nor do I think there is any member present working any of the same improvements with the success that they have been accustomed to in the old and regular way of working. I now wish to impart to this Convention a *certain* way of shortening the time one-half in sitting, without any dodge in the manner of working; and for the same I am indebted to F. A. Wenderoth & Brother, of Philadelphia.

From the negatives and proofs I now lay before you for examination, you will perceive that there is no difference in the printing qualities of the negative, or lack of sharpness, roundness, or detail in either. This improvement in shortening the time of exposure is based on the well-known fact that, when a sensitive film has been impressed by light, the action continues to a certain extent after the said impressed film has been removed from such action. Therefore, as the collodion film is first impressed with a sharp, well-defined picture, almost only a contour, as the sharpness of a picture is most perceptible in the deeper shadows, it is sufficient to expose the plate long enough to obtain these deeper shadows, after which the full light of the lens is used to impress the half and finest tints on the plate in the shortest possible time, giving a picture in about half the time necessary by the old method, but more soft and sharp. The only necessary mechanical arrangement is to arrange the tube so that the stop can be moved without jarring it. The mode of procedure is as follows: Take the focus without the stop, then put the stop in, and when the exposure (using the old method) should have been thirty-two seconds, expose eight seconds with the stop in, and then, without shutting off the light, pull out the stop and expose another eight seconds, when the plate will be found fully exposed. I have fully tried the experiment in several galleries lately; among which is our worthy President's, and others. I think he will bear me out that it will do all that is claimed for it; if not more, in time, by further experiments.

(Received with applause.)

MR. FITZGIBBON: There is a negative, one side made in thirty seconds, the other side in ten.

THE PRESIDENT: I would just state, that in using a camera with a diaphragm that works in forty seconds, ordinarily make your time twenty seconds; the first half with the diaphragm in, and then slip it out, give it the other half; or do it ten seconds with the diaphragm in, which sharpens the picture, and the next ten seconds without it, and it is done just as much as it is with forty seconds with the diaphragm in. If you wish to discuss this subject further you can do so.

MR. HESLER: I wish to state, that I found when the plate has been exposed in the camera, let it set a little time after without fully developing. The action begun in the camera will continue, till you begin to develop; in that manner you can shorten the time very much. In taking children, after exposure, let the plate stand as long as you can before the development. Do not let it dry; then you will have a full-time plate.

MR. WILSON offered from Mr. John L. Gihon, a gentleman well known to many personally, and by his writings to all, and who, although now living in South America, has not forgotten the National Photographic Association, the following:

A CONTRIBUTION TO THE POW-WOW.

Again, I am obliged to regret the impossibility of my attendance at the annual gathering

of the National Photographic Association. Even these lines I am forced to pen months in advance of the occurrence, that I may at least have the satisfaction of extending a written greeting. Were I communicating with the noble body, yclept, the "Hypo Club," I should most certainly claim relationship with the sodium family, and insist upon NO representing me in the minutes of the Society. I am thoroughly impregnated with that most useful but rather too abundant element. Air, water, provisions, clothing, and self are all alike well salted, and I feel thoroughly prepared for any further packing process. I am now being carried over the surface of the South Atlantic with as much speed as a good ship can command. I am enjoying a most welcome respite from labor—a perfect immunity from the everyday trials of our craft, and am only reminded that I am one of the profession by being surrounded with cases containing the necessaries for photography. The magnitude of these warn me of the extent of the contents, for alcohol by the barrel, ether in proportionate quantities, gun-cotton in sufficient bulk to awaken the scruples of the most lenient insurance agent, iodides and bromides by the pound—all, all intimate the coming of an exciting campaign. In one of his interesting letters, Prof. Towler narrated his experience in the practice of our art on board of a steamer. He even asserted the practicability of some enterprising genius becoming the resident artist of a vessel, and assumed that such a one would find most profitable employment. The Professor, however, tells us that the termination of his experiments was somewhat hastened by the discovery of his apparatus in the close embrace of a sailor, and by the sight of his silver solution streaming through the scuppers and making new chemical combinations with old ocean. He was confident that pictures might be satisfactorily made, provided the camera and subject could be prevailed upon to remain still. Aye! there's the rub! During this last voyage of mine I have endured so far, five weeks of incessant pitching and rolling, and can think of but one photographic operation that would be facilitated under the circumstances, *i. e.*, the preparation of an albumen solution. Shaking of the bottle by hand would be altogether superfluous. I have had no desire to attempt the verification of the experiments of our illustrious leader, and in accepting the entire correctness of his theory, I would yet hesitate in becoming the zealous martyr that the establishment of a floating atelier would require. I must not encourage the inference that I have been altogether idle in the service of art. Books whose pages I had before but glanced over, I have now thoroughly reviewed; and blessed with the possession of an admirable collection, have been enabled to leisurely consider the different stages and the progressive advance of our science.

Oddly enough, and probably governed by the same incomprehensible law that regulates our dreams, the memory of an essay, read many years ago, flashed upon my mind. As I recollect it, the production was that of a clerical gentleman, and his pages were devoted to quite an exhaustive treatise about "Veal." The farmer or drover who should patiently have spelled out its many paragraphs, would, at the conclusion, have tossed it away in disgust and advised the author to have turned his attention to something he knew more about. It is true that clergymen are looked upon rather as shepherds than herds men; but in this instance our friend cunningly abstained from betraying his ignorance of the practical bearings of the subject, and so said nothing about them. He very wisely did not recommend any particular breed or pasturage, and being most likely a bachelor, he did not even venture an opinion as to the proper market price of the meat. No! no! He treated of veal in its theoretical and æsthetical relations. He held it up as a perfect emblem of IMMATURITY; of that which is in a state out of which it must grow; of that which will in course of time grow older, better, and probably very unlike its present living condition. You may possibly at once surmise why I have mentioned my recollection of this curious article. I think that in accepting it as a type of the present state of our calling, we will not go far astray. You must not deem it an insult that I propose to designate ourselves but a collection of calves, or that I select one of those animals as a new crest for our coat of arms. I am in all seriousness in perfect sympathy with the author of whom I speak. You see, that if blessed with its full share of existence, a calf will most certainly become a cow or an ox, and it is a mere matter of individual development how soon that important metamorphosis will take place. There is hope for all of us. Let us then accept veal as typical of immature creations, opinions, and tastes. Which one of us can look back with entire satisfaction upon the productions of his earlier days. Some degree of astonishment and an innate sense of disgust will probably be the accompaniments of a candid retrospect. We are obliged to acknowledge that our efforts have been very vealy. We can remember the complacency with which we admired some favorite work and displayed it to our friends; and now that the novelty has worn

away and we have examined things so much better, made by other hands, we are, perforce, obliged to think that at the time we must have been very great fools or very well-defined calves. After-thought brings with it the satisfactory reflection that we have not been alone in our embryonic condition, and that now we are able to do so much better. But here occurs a most serious difficulty. Fortunately or otherwise, it yet remains an undisputed fact, that but few men think alike. When are we to conclude that we have reached our standard? That which recommends itself to us as excellent will probably be termed execrable by our neighbor, and his choicest labors will, in turn, be treated with contempt by our own judgment. Oh, for a gauge with which we could with certainty determine our merit before obtruding into the combating masses! I must favor our simile but a step further and object to the supposition, that in approaching maturity it becomes but a question of time, and that ultimately all will arrive at an equally perfect state of development. On the contrary, there is bad beef as well as good, and as assuredly so, superior veal as well as that which is lean and unwholesome. Unfortunately, the bads have it in the case of the quadrupeds, and you can decide for yourselves as to whether the condition of affairs is not the same in our own herds. After all, it is public opinion or the voice of the majority that must decide upon personal merit. Criticism is by no means partial. The last few years and the happy influences that the Association has begotten, have been the means of instituting a certain generous and unbiassed examination of each others' efforts. Formerly, the practice of covertly extolling one's own labors and slashing into the pretensions of a rival prevailed to an alarming extent. The principle resolved itself into a law of Nature, most aptly if not elegantly expressed by Dean Swift, who says that—

> "Big fleas have small fleas
> Upon their backs to bite 'em;
> And these fleas have other fleas,
> And so, ad infinitum."

Ah! gentlemen, there is a vast amount yet to be learned, beside that which we may have already acquired. Until lately I had no idea of the immense number of subjects having a bearing, either direct or otherwise, upon the pursuit of picture-making. For years I have been prosecuting the habit of collecting and preserving such scraps of information relative to our profession as magazines and periodicals could furnish me. Lately I have been classifying and indexing these. I have scores of articles treating of the same matter; but I also find that I have no less than eight hundred and sixty-eight genuine and distinct captions. Every one of these has a positive relation to some item of intelligence useful to the workman. Chemistry, physics, optics, manipulatory details, and many other branches are all spoken of, and each paragraph seems not only useful, but indispensable to a thorough comprehension of our undertakings. Where then is the man who can absorb all this in two weeks or as many months? for such periods have often been allotted as the time necessary to acquire the "business." One cannot but feel chagrined that our most delicate operations are so often treated with indifference by those who produce them, and the thinking man cannot but acquire feelings akin to disgust when he silently watches a licensed practitioner handling and combining substances about the composition or nature of which he knows nothing, and whose effects are regarded as simply mechanical, as the admixture of clay with water. I do not hold it to be at all requisite that the photographer must be a complete analytical chemist, a profound physicist, or that he should be capable of solving the most intricate of the optician's problems; but I do maintain that he should have a general comprehension of all these sciences; that at least he may remark intelligently upon the accidental incidents that occur in his working, and so profit by them. In fact, I am even one of those who uphold that the superior excellence of a photograph can now be best attained by devotion to art and its principles. The day has happily passed when we worked under continual alarms, lest we should be overcome by some insurmountable "stick;" when streaks, stains, and pinholes were the banes of our existence, and when we daily entered our galleries with undefined feelings of all sorts of impending calamities. We have learned to look upon the contents of our dark-room with the same sensation that a musician regards the keys of an instrument. The master knows that his touch can produce the coveted result, whilst he also knows that the pretender is powerless with the same accompaniments.

I have no doubt but that many gentlemen attending this Convention, will follow the examples of hundreds who were at the preceding ones. Armed with note-books, they will zealously seek for the producers of the most enticing specimens, and importune for formulæ. It is in vain that the assurance is given of the absence of any hitherto unknown combinations. Our superficial operator insists upon looking at his professional

labors as the mechanic regards the product of some superior piece of mechanism. He blindly seeks for tools and totally ignores the skill by which they are controlled. The merit of our higher classes of work consists in the adaptation of recognized rules of art to the end in view. Study of the effects of light and shade, of the graceful disposition of lines, and of the judicious aid of simple accessories, will do more to enhance the value of one's work than the collection of all the receipts ever concocted. The editors of our magazines fully understand this, and we now find them devoting columns to that class of instruction calculated to elevate the taste for the truly picturesque.

For further approaches toward perfection in our chemical department, we must trust to the researches and experiments of scientific amateurs. These gentlemen have advantages for prosecuting studies in that direction that are denied to the working portraitist, whilst on the other hand we can never expect them to be able to enter a photographer's atelier and succeed in creating the results that daily practice and the handling of numberless human subjects make the professional so expert in rapidly accomplishing.

I must enter an apology for not being able to swell the present catalogue by any contribution of pictures; but I trust that at the next meeting I shall be prepared to forward works that I have been instrumental in producing, having at least novelty of subject to recommend them.

JOHN L. GIHON.

Under the Equator, Long. 26°.
February 10th, 1873.

MR. WILSON: I also have a short paper from a live member of the National Photographic Association, living on the Pacific slope, and unable to be present, on a subject of practical interest to you all. It is from Mr. J. Pitcher Spooner, Stockton, Cal., and is as follows:

## HOW MANY POSITIONS SHALL WE MAKE TO OBLIGE THE FASTIDIOUS PATRONS OF OUR PHOTOGRAPHIC ART?

Circumstances, of course, all will allow, must at intervals govern the operator. But is it possible, as we meet in yearly convention, to lay down some rule that may in a small degree serve as an answer to the daily repeated question, "Oh, you will make me *three*, *four* or *five* negatives, and let me choose from the *proofs*, will you not, Mr. Photographer?" A short time back one negative was *quantum suff.*, then it came, *occasionally* to be customary to make *two*, out of deference to some valuable and esteemed patron. But *now* we have every day the "*three, four or five*" argument. And *who* dares to say what the end will be? It's not an occasional customer making the above demand, being a "good subject," tastily dressed, and all that is requisite to make a fine picture; but we are coming to have a regular instalment. If the fashions appear simultaneously with a change of weather, the two combine to fill to overflowing our reception-room, and the happy one that first secures Mr. Photographer thinks she can have any number of plates manipulated, see any number of "proofs" and then order "half a dozen" made up of "one of this kind, two of that, and one each of the other three." Two-thirds of them to be returned and new negatives made, and the same process gone through every time the fashion changes, and the "bill to Pa."

Who "will see whether the ladies are suited yet or not?"

This *may be* a successful mode of bookkeeping, but as far as my few years of experience serve me (eight), one fact is pre eminent., viz., by bowing and scraping to the nonsensicalities of such a class of patronage, the poor photographer is drawn into a whirlpool of vexation, and perhaps *financial disaster*. And yet when our brother photographers are "doing thusly" how can we refuse?

When the ablest and best of our craft are so overwhelmingly suave and agreeable to "any number of sittings you wish, ladies," what has any one to expect but the same privileges the world over?

It has seemed for some time to your humble servant that the way to avoid in a measure all this amount of extra expensive manipulation is to quietly, but firmly, make only two negatives, or if any unseen erroneous move spoiled one of these, say three, but two *good* negatives, and make proofs, and finish to order from them; finding, with increased treasury at the end of a few months, a renewed assurance of confidence in the minds of general customers—confidence in ability as an operator and business capacity at the same time. A small action would make a great and much-needed change in this *part* of our working. Such action, if your honorable body choose, could easily be taken by you, and be one of the notable features of the session of 1873.

J. PITCHER SPOONER.

STOCKTON, CAL., June 3d, 1873.

THE PRESIDENT: To-morrow morning is for business. The afternoon will be used for the discussion of the subject of photography in its various departments.

We shall be very glad to hear a general discussion of such matters.

This evening we all meet in the Rink; there is to be no regular meeting.

On motion, adjourned.

*SECOND DAY—MORNING SESSION.*

WEDNESDAY, July 16th.

The Association was called to order by the President.

MR. WILCOX: My partner presented a communication to me which I wish to be brought before the Convention.

THE PRESIDENT: If the Association will listen I will read Mr. Edward Anthony's communication.

I might state here that we receive so many articles, that it is impossible to read them all; but this being a proposition in which we are all interested I will read it.

MR. EDWARD ANTHONY'S OFFER.

TO THE PRESIDENT OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION.

DEAR SIR: Twenty years have passed since I offered prizes amounting to $500, in the shape of a silver pitcher and goblets for the best daguerreotypes.

The award, in that case, was made in the handwriting of the late lamented Prof. Morse, whose memory is so dear to us all.

The gentleman who received the prize pitcher on that occasion, Mr. Jeremiah Gurney, is still prominent in the photographic brotherhood; and will have an opportunity to compete again for a prize in the art which has undergone such extraordinary changes during the last two decades.

My object in addressing to you this communication, is to offer the following list of prizes, to be competed for by photographers of all countries, viz.:

$100 for the best bust picture of a lady.
$100 for the best child's head (boy), less than six years old.
$100 for the best child's head (girl), less than six years old.
$100 for the best group of two children under six.
$100 for the best landscape.

All the prints to be of the size ordinarily known as 4-4, or about 6½ x 8¼ inches, mounted on 10 x 12-inch cards.

I make no restrictions as to retouching, though I think it likely the judges would not give the prize to a picture that owed most of its excellence to retouching. Too much retouching would most probably be considered to denote inferiority in the photographic execution.

In the award, regard must be had to artistic effect, combined with skill in chemical manipulation.

I wish the judges to be appointed by the National Photographic Association in the following manner, viz.: Three amateurs in New York, and three in Philadelphia or Boston; the pictures to be submitted first to the New York tribunal, whose award is not to be made known until that of the judges in the other cities has been pronounced.

If these awards should differ, the final decision I wish made by the President of the National Academy of Design, or such member of the Academy as he may appoint as his alternate.

If any one of the parties selected as judges should be prevented from acting by any cause, his place shall be filled by a majority vote of the others.

The photographs intended for competition should be sent by mail to the President of the National Photographic Association, New York, who will hand them over, without examination, to one of the judges appointed from that city.

The time limited for the reception of the photographs is February 1st, 1874; the prizes to be awarded by the judges as soon as possible thereafter.

Each competitor is requested, *but not required*, to give the details of his method of working, viz., the composition of his collodion, and developer, any peculiarity of his mode of printing, toning, fixing, &c., the lens used, and the time of exposure.

After the award has been made it is my desire to retain the photographs sent in, that I may bind them in an album as a record of the present state of the art; and I would earnestly request that photographers from all nations will enter into the friendly contest.

Yours very truly,

E. ANTHONY.

MR. PEARSALL: I move that the President of the National Photographic Association nominate the committee.

Agreed to.

THE PRESIDENT: This communication requires a committee of amateurs, and not professional photographers.

Agreeably to the above request the President appointed as jurors: Prof. J. W. Draper, H. J. Newton, Esq., F. F. Thompson, Esq., New York; E. Borda, Esq.,

Coleman Sellers, Esq., Philadelphia, Pa.; Prof. Cook, Boston.

Mr. Ryder: I move that the Association tender a vote of thanks to Mr. Edward Anthony for his interest in the progress of photography.

Agreed to.

The President: If you will give me your attention a few moments I will read my annual address, which the constitution requires me to write.

## ANNUAL ADDRESS OF THE PRESIDENT.

Members of the National Photographic Association of the United States: I have in former years, in this annual address which the constitution imposes on me, stood up and apologized for the existence of our Association. I have done with that. The few years of its existence have shown conclusively its worth, and the good already accomplished shows its necessity. It will be a sad day when the photographers of the United States cease to have a union of this kind; it would be a blow from which our art would hardly recover. I have tried to answer its enemies and traducers, but its work has effectually silenced them. It cannot have an enemy when its objects are understood, unless it be from jealousy or sheer ugliness; persons actuated by such motives are beneath the notice of any intelligent body of men.

The regiment before it goes on its march, first "marks time," and it may be that the National Photographic Association has been thus far only "marking time." If so, you may rest assured its work is before it, and it will march with an irresistible force, elevating its followers, and giving to photography a dignity and a standing with every intelligent and well-informed person.

Allow me to picture to you what kind of a person a photographer of the present day should be. He must possess taste, skill, ingenuity, be a careful man, a patient man, quick to see cause and effect. (How many a man works away at his bath when the trouble is in the collodion, or changes his collodion when the fault is in the bath, or becomes disgusted with both when they are both right, and his developer is making all the trouble. Therefore I say he must be quick to see cause and effect; this requires experience.) He must be a progressive man, ready to adopt every new phase that is an advance, a clean worker or he is sure to be a poor worker. We want photographers to be men of truth, solid, honest men, men whose word is taken where they are known, as authority. When we get up to this standard we can then not only command but demand paying prices for our work. Our difficulties are great. We require great patience, must always be ready and willing to gratify our customers as far as possible, and then with it all we cannot suit everybody. When people want pictures of themselves as they actually are, then the photographers' millennium will have come.

Some operators work hard but do not accomplish anything, because they work wrong. It has been said, fill a dry well full of pumps, and keep them all agoing, you will not get water; and so of our work: it is vain to work and get excited, and perhaps angry, when all the time you are working without judgment.

Most of us have the bump of self-esteem too large. Each is apt to think himself eighteen feet high. We will all do better when we find our level. These annual exhibitions have been the means of dissipating much of this. We see work exhibited here by persons almost unknown, and are compelled to acknowledge ourselves beaten.

These exhibitions give us all a grand opportunity to compare our work, and instead of being discouraged we should be stimulated to do better; see in what respect we are surpassed, and determine to remedy the defect next year; throw all the knowledge gained by comparison into your work, and what a stride forward we shall take. If A. has done better work than B., perhaps next year B. may be far ahead of A., or C. may outshine them both. This comparing work will of necessity push us forward, and to keep up with our neighbor we are forced to improve. Do this, and we shall soon *beat the world*. I want the humblest man amongst us to show his work; perhaps we can help him to do better; if so, he is benefited. Some humble man here to-day may yet stand most prominent in the photographic firmament.

A Persian legend tells of a little drop of water, pure from the sky. It falls in mid-ocean. What shall it do? and what shall become of it in such a vast ocean? Water above, beneath, around. Soon it is taken into the mouth of the oyster, and in time is taken by man. It has become a *pearl*, and finds its place—one of the brightest gems in the crown of the king.

I think the man who does all the work of his pictures, and does it well, is entitled to more honor than should be given for the work coming from large establishments, where each department of the work is done by some one who does nothing else. Our art is so comprehensive that but few succeed in all its requirements. The camera is like the piano; one man can do more

with it than another. Let an unskilled performer sit down, and he only gives you discord; but let one of acknowledged merit touch the keys, and you are charmed. So let a dabbler work the camera, and the result, as one has said, could be worshipped without sin, as it bears no likeness to "anything in heaven above, or on the earth beneath, or in the waters under the earth." I would give all honor to those of our profession who have sent specimens of American photography to compare with the European productions at the Vienna Exposition; yet I cannot but regret that some of them have not thought it worth while to exhibit their work here.

I want to say a few words about new inventions and discoveries. We have been dreadfully swindled sometimes; but while we are ready to condemn humbugs, let us avoid the other extreme, and not condemn all, as many new inventions are *labor-saving* as well as *work-perfecting*. Manufacturers and skilful mechanics are constantly at work designing articles for our aid. While we may not be able to buy or try all, yet let us hold fast that which is good.

As to general progress, there is, I believe, more care and attention given to manipulation. Printing and toning is not, in my opinion, I am sorry to say, in advance of several years ago. And yet the printing and toning is the most important part of picture-making. To take all negatives and print them alike, dozen after dozen, is just a waste of material. The printer must be capable of judging how to make the best print from a given negative: one may print best vignetted or another solid; one wants to be printed in the sun, another in the shade. These things must be studied and great judgment used, and the toning must be done by a competent person, and not by experiments or guess-work; and we shall never have uniform, good work until this is done. The printer must be capable of getting all there is out of the negative. Let a good printer take a very ordinary negative, and he will get a better print from it than an ordinary printer will get from a superior negative. There is more in the printing than we have ever conceived.

The finishing up of cards is done much better than formerly. Card mounts are made with more taste. Many new and beautiful designs are now furnished. Stockdealers vie with each other in giving us apparatus to facilitate and perfect our work.

Our photographic literature is multiplying, and the man who does not keep posted by reading at least some of the publications, will soon find himself behind his fellows.

The subject more particularly before the fraternity is the desire to do away with the hypo-sulphite of soda as a fixing agent. This we must do before we can make permanent paper pictures.

Mr. Sherman, of Milwaukee, last year showed us something that looked like a success.

Mr. Newton, of New York, believes he has succeeded.

We hope to have this subject well discussed before we separate.

As an evidence of the fact that photography is advancing in the eyes of the world, I will read an article cut from a New York paper. It tells its own story.

"Photography as an art has just reached a new dignity—it has got a professor's chair and a professor to fill it. The fortunate man is Dr. Vogel, photographic instructor in the Berlin Royal Industrial College. This academic action is very proper, and only just to the profession, which is fast growing in thoroughness and in conscientious zeal for improvement and new discovery. To compare photographs taken in 1863 and in 1873 is the best way in which to realize what the art is doing for itself."

In three years the Centennial, or one hundredth year of American independence, will be celebrated, and I would recommend that this Association take immediate steps to insure that photography be represented in the great exhibition according to its importance. Let us make the photographic section of the Exhibition one of its most important sections. Let us show not only to our American citizens, but to the world, the importance of our art.

I hope the Association, before it closes its present convention, will take the necessary steps to carry this out thoroughly.

Let us each promise to do our best for another year, and let every member exhibit something at the Exhibition and Convention of 1874.

(Received with applause.)

Mr. Pearsall: In connection with the suggestion that the photographers should be well represented in the Centennial Exhibition at Philadelphia, I would suggest the idea that is presented to us by the New York German Photographic Society:

That the societies of the different States would be represented in a manner similar to that, in composing their pictures into a design, is very desirable. Each one can

suggest their own way, and have their own design. I think it would be much better, and form a more elegant and harmonious exhibition if different societies were represented in this way, than it could be in a disconnected manner. In our different exhibitions if each State has a society, those societies can combine together and group their pictures in one connection. They may make their posing in the manner they like; only for each society to group together.

THE PRESIDENT: I now have a very important communication which I wish to read, if the Association will keep as quiet as possible.

It is known to the most of you that, a little over a year ago, Mr. Shaw, the holder of the silver-saving patent, commenced a suit against myself and some others. That suit I defended before the court, and the case was decided in my favor. After that case was decided Mr. Shaw obtained a reissue, which I believe is the fourth or fifth reissue of his patent. He now sends to the Association the following proposition:

A. BOGARDUS, ESQ.

DEAR SIR: In accordance with your request of this morning, I submit the following proposition in regard to my patent for "recovering gold and silver from spent photographic solutions and washings."

I would suggest that a company composed of such photographers as choose to join in it be here formed, for the purpose of purchasing said patent. The capital stock of said company to be not less than $300,000.

If subscriptions can be obtained for the entire amount of stock, I will accept the sum of $200,000 in money for the patent; five per cent. to be paid down, and the balance in instalments within one year; or I will accept $75,000 in money, and $150,000 of the stock of said company, as full consideration for my patent.

The balance of the stock, or money over and above what is paid me for the patent, shall belong to and be the property of the original stockholders who subscribed for their stock at or before the organization of the company, to be divided by them as they deem fit and proper.

If subscriptions to $25,000 or more of the capital stock can be obtained here before this Convention closes, I will then consent to the organization of the company, provided the company will, when organized, pay me five per cent. in money of the stock at that time subscribed, and issue to me not exceeding $150,000 of the stock; and I will then give them such suitable time thereafter as we can agree upon in which to obtain the balance of the subscription and collect in the balance of the amount subscribed, over and above the first five per cent., which must be paid down, and the balance paid over to me as fast as collected. Truly yours,

J. SHAW.

What is your pleasure concerning this matter?

MR. HESLER: I move that it be laid on the table; I do not see but that this is an individual interest. It seems to be a private matter; I do not see that the Society has anything to do with it. If Mr. Shaw wants to raise stock he can go to individual photographers and raise it; I do not think that this is the place for it.

MR. SOUTHWORTH: If, Mr. President, and ladies and gentlemen of the Convention, an association vote would be proper, on a question that comes up in this way, it is well to present it to the Association. If the vote of the Association would not be proper, or if good for nothing, then it is not proper to bring it here. I say that it is an individual matter, and in Philadelphia I supposed it was understood that individual matters should not be brought up. With all due respect to the other members who apply for a patent (and patents and inventions have done as much, and are now doing as much as anything in the United States for the good of the country), with all due respect, it is not considerate, and it is not legal for associations to take hold of patents by voting to oppose them in any way. It is not legal for the State to vote money away for special private interests, and clearly if it is not legal for the State to do it it is not legal for us to do it. The courts have said that the agreements of associations are void, and are made void for want of individual acts.

One thing now I say for the purpose of having this Society move along in the progress of photography; I say, I wish these purely individual matters might be entirely and wholly kept out of it. I would treat with the most respect Mr. Shaw and everybody else.

I wish the same spirit of mind would follow in this case that followed in Philadelphia, and that we should still live up to that same feeling, devoting our time and attention to the individual interests of the society, improving our work, improving our minds, enlarging our minds, and learning to study that which is really required of us to do, before we as individuals can take any great high stand, as we cannot without it.

It will not be disrespectful to anybody. I move that the paper be laid on the table.

(The motion was seconded by several members.)

THE PRESIDENT: Is that your pleasure? Are you ready for the question?

(Cries of "Question! Question!")

THE PRESIDENT: All who are in favor of laying Mr. Shaw's communication on the table will signify it by saying Aye.

(A tremendous aye.)

THE PRESIDENT: Contrary-minded, No.

(No one voted in the negative.)

THE PRESIDENT: It is a unanimous vote. (Applause.)

THE PRESIDENT: I want the stenographer to be very careful now, because this is a very important matter.

Before I came here I received a communication from a gentleman, from a man, from a person, asking me to read a communication which he should send here in regard to a Photographic College. I told him I would read his communication if he would send it here, perhaps not stating the words, but meaning, of course, it should be a respectful communication. He has sent a communication, a printed one, in a paper, the name of which I will give you, the Alleghany County Reporter, published at Belmont, N. Y., of July 9th, 1873. The article is a most scandalous attack upon our Association, and a falsehood from the beginning to the end (To the reporters: Put it down carefully); and although I agreed to read his communication, I now take back those words. I shall not read it before any decent body of men.

MR. WEBSTER: In regard to that paper, Mr. President, I feel that any communication that is sent to our President referring to our Association, ought to appear in the minutes of the proceedings of the Association. I do not know that I am willing that it should be published at large outside of the fraternity. I therefore propose this motion to the President, that that paper, if you still refuse to read it before us, be handed to Mr. Wilson to be published in the proceedings of this Convention.

THE PRESIDENT: You all hear the motion, that you will have the article published in the *Philadelphia Photographer*. Mr. Wilson will publish it at your request, I have no doubt.

MR. WILSON: What is the question?

THE PRESIDENT: It is a motion to publish a communication which I have received from D. D. T. Davie.

MR. WILSON: Let the whole matter alone; the more you stir up that man the worse it will be for all. The *Philadelphia Photographer* is open for anything you want, but I tell you, you will have to enlarge the journal if you commence an argument with Mr. Davie.

MR. SOUTHWORTH: Mr. President, I am exceedingly sorry to oppose any motion that my friend from Kentucky (Mr. Webster) makes here, for I regard him as a man of judgment, but I tell you some of our stomachs are such that we could not stand nuisances unless we are very sick. I wish from sympathy that he would relieve us from it.

MR. WEBSTER: My object in making this motion was sincere. It was that we who have not been able and will not be able to see this article itself might know what it is.

I am satisfied with the condemnation of our President, perfectly satisfied, but at the same time I would like to see the paper. I think perhaps the profession generally might like to see it without publishing it to the world, but since the remarks of Mr. Southworth, of Boston, I withdraw my motion.

MR. HARRIS: I presume that the gentlemen from the country, and many of the members, perhaps, present would like to know what is in that communication. I have only just got here, and have not had an opportunity to look over it. I cannot speak as to its contents.

Now if it is not occupying too much time, I would move, as the gentleman has withdrawn his motion and the President has refused to read it, that some member be appointed to read it, that this Association shall know what is in it.

(Motion seconded by several.)

MR. WILSON: Mr. President, the memory of a thing sometimes affects us more than the act itself. The memory of something that we have done that was a wrong often clings to us for a lifetime, although the wrong may have been forgotten. I have heard that communication, and I would give fifty dollars if I had not heard it, and I hope you will not insist upon its being read or published. I would not publish it in the *Philadelphia Photographer*, because I would not disgrace my magazine with it. It is all that President Bogardus has said. I think you will all be a great deal happier if you would not read it. It is already printed, and you can all get copies of it if you want.

THE PRESIDENT: I will put your motion.

MR. HARRIS: I will withdraw it.

THE PRESIDENT: The whole subject is withdrawn.

The next business in order is the committee to nominate officers for the ensuing year.

MR. THORP: Before we proceed to the formation of that committee I have a subject that I would like to bring before the Association, that may make unnecessary the appointment of this committee.

The subject is the election of an executive council, to be composed of at least one member from each State; this duty, as well as some others, may then properly be referred to that executive council. I would say in support of that proposition that I believe that the appointment of such a council would give general satisfaction to the Association, and that as our business has been conducted heretofore, while individually I have been perfectly satisfied with the result, and with our organization as it has resulted from that mode of doing it, still the manner is a very improper one for so large a body as this; any one gentleman may move the appointment of a committee of names already prepared, and that committee brings in a batch of nominations for the office. No one likes to object, and virtually one man may approve of and really elect the officers of this Association.

I should prefer that this council be composed of a good man from each State, and from States where there are a good many members. More than one man might be chosen by the members of the National Association resident in the State; they then will represent the members from that State. By that means our nominations for officers will be made in a deliberate manner, and not with the rush and hurry that they always are in large assemblies, where the individual opinions of members are not consulted at all; and while, I may say individually, I am satisfied with the result as to the working of this Convention and the organization of it, and now while there seems to be general harmony in this Association, that is the time to provide against the possibility of there being dissatisfaction in the future.

I would ask, for information, if this should be necessarily in the nature of a constitutional amendment, and if the constitution requires a day's notice?

THE PRESIDENT: Under the constitution, all amendments to it have to lay over until the next session of our Association, not the next annual meeting.

MR. THORP: I would like to hear the views of some of the other members of the Association in regard to this subject.

THE PRESIDENT: It seems to be rather in the nature of a proposition, not a resolution.

MR. THORP: I merely make that as a suggestion, and would like to hear from some other gentlemen.

THE PRESIDENT: There does not seem to be any other gentleman inclined to speak on it.

MR. SOUTHWORTH: Mr. President, there are a great many ways of doing everything well. This last gentleman's way is a first-rate one, but why is it better than the way that was taken last year, under the present circumstances of this meeting, or under the circumstances of the meeting two years ago? Why is it better? Our officers, elected as they were, have served us well. A perfectly new set, if nominated and elected, would

serve us well; some of them would serve us just as well as the old ones have done, and with as much zeal, and some of them would not be as well qualified, because they would want experience.

I have lived away one side from the general centre, and have regarded that this Society has been most wonderfully favored with men who have been found in the centre, and who would act as secretary and treasurer of this Association, and thus help it live and move along. The president and the other officers have helped it move along just as well as it could move, growing stronger and stronger each year. If anybody feels disposed to nominate new officers this year, I have no objection to new ones, but I say the parties could not be improved upon.

Let us not then take up the time of the Association in alterations of the constitution just yet, and farming this Society out into States. I have no objection to State societies, and State committees, and State executives. What difference is there between the executive committee formed by the members from the State and an executive committee as we have? Any one of them would resign if a third part of the Association were dissatisfied with them, or a quarter part of them, or if any great dissatisfaction were expressed they would resign.

Gentlemen, let us move along just as we did last year, and see if it will not do just as well for us, and save our time.

Mr. Thorp: Allow me to say that the gentleman has probably misunderstood the nature of my proposition. I do not propose to do away with the executive committee that we have now; experience has proved that it is necessary to have an executive committee residing in one part of the country, so that they could meet. We have tried it with them residing over the country, and practically there was no meeting of the committee. We want that committee as now proposed, and we want that executive a medium through which they can obtain a sense of the meeting, as they cannot now. If we have members from each State, they can speak to the members of their State and vicinity, and thus represent them.

This committee will have the authoritative medium of the official journal, through which to obtain the sense of the Association.

So far as consuming the time of the Association is concerned, I don't think it will consume a very great amount of time.

The gentleman says the organization has been harmonious before. So it has; I agree with him. I am well satisfied with the officers we have had heretofore, and I think now that the organization is in a harmonious condition. Let us lay well the foundation, and keep it so by providing against all possibility of any disagreements in the future.

Experience has taught us all that there have been dissensions in all bodies when a large portion feel that their wishes and views are not consulted at all and not at all represented, and have no medium through which to make their dissatisfactions and grievances known.

The danger is that there will be a dissolution of the Association, an event which I should be very sad to see, and against which I wish to see the proper precautions taken.

The President: There is no motion before the house, still we will hear the remarks.

Mr. Hesler: I believe the executive committee have power to get information through the vice-presidents.

Mr. Pearsall: It is simply to take the place of these vice-presidents that the executive council is wished, and that it is more in accordance with the workings of other bodies. They amount to nothing. With all due respect to those gentlemen, one of whom I happen to be myself, we amount to nothing, and have practically done no good to the Association. An executive council of this kind, gives the action of the executive committee, supported by that council throughout.

There are questions coming up within the next year that are going to be of great importance to the Association. It is proposed that we ask Congressional assistance in behalf of a Photographic Institute.

We probably shall ask that assistance in spite of the communication of the 9th of July. We probably shall ask that assist-

ance when the time comes; if we do ask that assistance the members of Congress will want to know by what authority we present ourselves there. If it is stated that there is an executive committee, and this question, this running, fitting-up, and conducting a college, coming up after this Association is dissolved for the year, they can see at once that this executive committee are not acting by the authority of that Association; that is to say, upon these new questions of fact coming up. They have not taken the sense of the Association. It is impractical to communicate with each member, but the communicating with the vice-presidents, the sending and the getting their views, is not. They are not delegates; not members. They are simply officers of the Association, having no more connection with the State than they have with the people of other States.

THE PRESIDENT: The interests of the Association require that I shall expect a resolution, before I allow any more time to be taken up.

MR. PEARSALL: For the purpose of proposing this change in our constitution, I move that this subject of the appointing of the Nominating Committee be deferred until our next session. (Seconded.)

MR. SOUTHWORTH: I wish we could all realize what this Association is. We belong to all the United States. We are not a State association; nor we are not a National association, made up of State associations. We are *The National Photographic Association of the United States.*

Why localize anything, when it is not a political association? I will suppose for a moment that we compare it with the Royal Art Association of England. The members of that association are very much scattered abroad, and here we are members of the National Photographic Association. And our meetings are held here and there, first perhaps in New York, then in Boston; and going around to the different cities all over the States. Perhaps next year in New Orleans, Louisville, or in any good place we choose to go to, and we belong there. We belong all over the country. Let us not localize or sectionalize at all. Let us be the *National* Photographic Association.

MR. WEBSTER: I had a few remarks in my head to make. My view of the changing of our constitution is, that it amounts to nothing unless it is done constitutionally, and it is impossible to change our constitution in one day. The only proper way for this to be introduced would be by a resolution from the mover, passed up to the Secretary, which will lay over until our convention in 1874. That is the only proper way that this can be reached, for it simply amounts to changing our constitution.

The resolution was then put by the chair, and lost.

THE PRESIDENT: The subject is now before you, of appointing a Nominating Committee.

MR. ALLEN: As I understand it, this Nominating Committee is to be the regular Executive Committee?

THE PRESIDENT: No, sir; only a committee for the nominating of officers. They are to nominate the Executive Committee as well as the other officers. A motion to nominate that committee will be in order.

MR. HALL: I move that the Nominating Committee be appointed by the chair.

Agreed to.

THE PRESIDENT: I suppose that I might name them now. I think I will.

S. Root, Dubuque, Iowa;
Alfred Hall, Chicago, Ill;
C. L. Moore, Springfield, Mass.;
James Mullen, Lexington, Ky.;
Wm. H. Rhoads, Philadelphia, Pa.

That committee will please report to-morrow morning. It will be necessary to report to-morrow morning that the election may take place to-morrow.

The next thing in order is the appointment of the important Committee on the Location for 1874.

MR. SINGHI: I move that the chair appoint the committee on the fixing of the location for 1874.

Agreed to.

MR. CLARK: I move that the committee to be appointed consist of one from each State, so far as the States are represented.

THE PRESIDENT: To do that the Association will have to help me.

The names of the States were then called over, and a committee selected, with Mr.

G. M. Carlisle, of Providence, R. I., as chairman.

MR. ALLEN: You have not mentioned one from Ontario. There are several members present from Canada.

THE PRESIDENT: I am obliged to appoint the members from the United States. We would be very glad to honor these gentlemen were it in our power.

MR. SOUTHWORTH: Before you read that committee I would say that as to New England, there are two or three States omitted. It would be well to have one or two from each State. Likewise Delaware is not represented. You might put in two from New York and two from California and Oregon, and take two or three, perhaps, from Massachusetts, so as to have as large an expression of feeling about it as we can get.

THE PRESIDENT: I have got twenty-three.

MR. SOUTHWORTH: I am satisfied, if the rest are.

MR. FITZGIBBON: I think it superfluous to put so many on the committee; I don't think that they will half come. I withdraw the motion.

THE PRESIDENT: The chairman of the committee proposes to get to work as soon as possible. Two o'clock has been suggested as a favorable time; the committee will therefore please to come together in this room at two o'clock, and meet the chairman, Mr. Carlisle.

THE PRESIDENT: The chairman of the Nominating Committee, Mr. Root, requests that I shall call that committee together immediately after the adjournment of the present session.

The next business in order is a motion to nominate a committee to make the award of foreign medals. A motion to that effect will now be received.

A MEMBER: I move that the chair appoint that committee.

Motion seconded by several, and agreed to.

THE PRESIDENT: I have made out that committee already, in anticipation of your imposing that duty upon me.

I have named on that committee, Mr. Daniel Bendann, Mr. J. H. Kent, Mr. R. J. Chute, Mr. Frank Jewell, Mr. G. Frank E. Pearsall.

THE PRESIDENT: The next thing in order is the report of our counsellor, Mr. Bell. I do not think he is present with us. If he is in the room without my knowledge, he will please read his report for last year.

Mr. Bell was not present.

THE PRESIDENT: We will now hear a report of the Committee on the Scovill and Holmes Medals for the greatest improvement in photography during the year.

## REPORT OF THE COMMITTEE ON THE SCOVILL AND HOLMES MEDALS.

MR. PRESIDENT AND MEMBERS: Your committee appointed to investigate the merits of the improvements in photography during the past year offered in competition, beg leave to make the following report:

After a full and careful examination of the various articles presented, your committee recommend the awarding of the Scovill gold medal to W. L. Shoemaker for his improved fuming-box, and to R. Newell & Son, Philadelphia, the silver Holmes medal for their improved field bath-holder and acid-proof composition.

Respectfully submitted.

A. M. COLLINS, A. K. P. TRASK,
A. MOORE, J. R. CLEMONS,
J. CARBUTT, Secretary.

THE PRESIDENT: What will you do with that report?

A MEMBER: I move that it be received.

Agreed to.

THE PRESIDENT: The report is accepted. Will the Association adopt that report and discharge the committee?

The report was then adopted and the committee discharged.*

THE PRESIDENT: I have been requested to say that Mr. H. J. Rogers has a book for sale in the Exhibition, and he donates twenty-five cents on every copy sold to the Association. The purpose of the work is to elevate our art in the minds of the people.

* As will be seen further on, this action was reconsidered, and the report referred back to the committee for modification. It appears above as modified.—E. L. W., Per. Sec.

I will now call for the reading of the Report on Apprenticeship, by Mr. Fitzgibbon.

Mr. Fitzgibbon: No doubt many of you have not heard this report; I will read it to you now.

REPORT OF THE COMMITTEE ON APPRENTICESHIP.

Mr. President: Your committee, appointed at the Convention held in Cleveland, Ohio, in 1870, to consider a plan for the better regulation of apprenticeship, have concluded to refer this Convention to their report made to the Convention held in Philadelphia, 1871, which was laid over for further consideration.*

We also make an amendment to our last report, in the form of a diploma, to be given each student graduating from the studio of any member of this Association.

We deem it of great importance that this Convention should give this subject their immediate attention.

We most respectfully submit to you our report, and ask for its adoption and our discharge.

A. K. P. Trask, I. B. Webster,
E. Decker, J. H. Fitzgibbon.
D. Bendann,

[form of diploma.]

National Photographic Association

OF THE UNITED STATES.

This is to Certify, *That Mr. ....., of ....., County of ....., State of ....., has completed a regular studentship in the Photographic Art with Mr. ....., of ....., County of ....., State of .....*

*His term commenced on the ..... of .....*, 18—. *His age at that date ..... years. He served with ..... three years and . .... months. His term closed .....*, 18—.

*His moral character while in ..... employ .....*

*He has become proficient in the following branches .....*

.....

*Excels in.....*

.....

We offer the following resolutions to be adopted by the National Photographic Association:

*Resolved, First.* That three years shall be the term of studentship in the art of photography, excepting students under seventeen years of age, who shall serve until they are twenty.

*Resolved, Second.* Any student leaving his employer before the expiration of his term, if he has an honorable discharge, shall be entitled to the privilege of making application to any member of the Association to serve the balance of his term, and from him receive his diploma.

*Resolved, Third.* Any student leaving his employer without an honorable discharge shall be considered unworthy of the confidence of, or employment by, any member of the Association.

*Resolved, Fourth.* All applicants for studentship should come well recommended, and be taken on one month's trial without compensation, when, if found acceptable, writings of agreement to be entered into by the parties, stating terms on which they come and the time they are to stay to entitle them to their diploma.

*Resolved, further,* That we most urgently recommend the establishment of a "Photographic Institute," as suggested by Edward L. Wilson, our esteemed Permanent Secretary, and that we will do all in our power for its establishment, and urgently request the co-operation of every photographer in the country for its consummation.

A. K. P. Trask, D Bendann,
I. B. Webster, J. H. Fitzgibbon.
E. Decker,

This, gentlemen, is the report of the committee, which they now offer for adoption. We have been for the last two years trying to adopt the one first reported. We have since that time conversed and had letters from many prominent photographers throughout the country, giving or embodying most of these same ideas. After considerable deliberation we have come to the conclusion that we cannot offer any better.

A Member: I move that the report be accepted and adopted, and the committee discharged.

The President: What is your pleasure?

A Member: I second the resolution. Question called for by several.

Mr. Webster: Mr. President, I do not like to consume the time of the Convention on this question without stating the facts.

It has been now nearly, I would say fully, three years since I have been on that committee. During that three years it has been the study in my own mind, and the subject of conversation between myself and others, photographers throughout the country, and we found it one of the most difficult points to settle that has ever been brought before the Convention. At the same time I make this broad assertion, that it is one of the most important subjects

* See *Philadelphia Photographer*, page 228, July, 1871.

ever brought before this Convention, hence the difficulty of settling it.

The report was read in Philadelphia; it was accepted, and the committee almost discharged, and it would have been discharged except for me. I made the same assertion there that I make here, that the question is of too great importance to photography to be treated carelessly. Hence, just at the time the resolution would have been passed, and an adoption of the report of the committee would have taken place, I made a motion that the report be laid upon the table. At St. Louis I could not get it considered.

We now propose to settle it if we can. I think it is the duty of every photographer to say what he knows about apprenticeship in photography, for if you study this subject one moment you will satisfy yourselves it is a most important subject, and the most important ever brought here for the future of photography. Photography is progressive. It is necessary that an amount of education in other branches should be taught. At the same time we should take our position before the people of this country, and convince them from the position that we do take, that we are of some consequence to the world through which we are passing. Hence, I say, do not adopt this report without thinking about it. Do not accept this report and adopt these resolutions until you think a little of it. Look at the importance of it. I am called upon very often, and asked, "What are your terms for teaching men photography?" What is my reply? "What do you want to learn?" "I want to learn how to make photographs. How long does it take?" "I have been working at the gallery twenty-seven years, and I do not know the business. Now how quick can you learn it? That is the point. Do you want to learn it? Do you want to serve an apprenticeship, or have you got all the facilities to make a good ferrotype?" These are the points. I am sure every member of the committee has studied this point. I do wish you would consider this subject a little; just a little. It will be very gratifying to this committee to hear from some of you who have studied it, before you accept this report and adopt these resolutions. They are, as Mr. Fitzgibbon has said, the best that we can offer; so they are with our present advices. The question now comes up before you, will you give us advice?

I call upon you to express yourselves upon this one point—the subject of apprenticeship to photography. This is the subject I wish to hear something on.

THE PRESIDENT: The question is before you.

MR. SAYLOR: I have only a word or two to say in reference to this subject. So far as I can see, it is most important, and the views now so ably expressed by my friend from Kentucky (Mr. Webster) coincide with mine. I think, if this resolution is once adopted, as recommended by your committee, it would be doing a most needed work; and it is what I have been doing for the last eight years past. I have been carrying out what has been recommended in these resolutions; and I will tell you how I have been doing the work. I have been taking men off the street and putting them at the preliminaries of the business. I would set them at work, and say, "Now stick at that work. I will give you at first but a small compensation, and as you advance in the business so your wages will advance. Make yourself proficient in all the departments, commencing down below in order to get up." I have a young man with me now, who has been with me eight years. I have had two others, who came since then. I have two now. One has been there two years, or very nearly. He commenced down below. Did not know anything, except that he had real good ideas. Some of his ideas about printing and toning have been in the *Philadelphia Photographer*, and I have now one with him, who commenced about a month ago; and in our town, according to the living, they seem to be able to get along by commencing as I did, on a salary not very high. I learned on a salary of two dollars a week. In some cases it might be too much. My universal experience has been that it is full enough.

THE PRESIDENT: How many plates do they spoil a week?

MR. SAYLOR: I really would not like to say.

THE PRESIDENT: Go on, and please to excuse me for interrupting you.

MR. SAYLOR: That is the way we do. It is simply carrying out what the committee recommend. That is all that I can suggest. I think it is just what we want. We want it to be adopted—it ought to be—it is recommended by the committee. We should act upon it, and stick to it, and we will have photographers and artists, instead of jobbers, who take up our art just as some one else takes and picks rags, because he cannot do anything else for a livelihood.

MR. COLLINS: Speaking of giving two dollars a week, reminds me that a gentleman wanted to learn photography, and I wrote to him to know what his terms were, and he replied he would come and learn at eighteen dollars a week, if I would let him come. (Laughter.)

MR. BINGHAM: This matter strikes me something in this way: I think something of this kind is very much needed, and, we particularly through the smaller towns of the West, see the need of it, as we frequently have applicants who come into our rooms for situations. They may apply for a situation as printer or assistant operator. You ask them where they have served their time, and they will tell you of some place you never heard of before. You wish to know how long they have worked at it, and they will tell you—some two months, some three; some make believe that they have served six. And even a young lady said to me that she served two months, and knew all she wanted to know about the business; and she could do everything that was done in the business. Now we want something to regulate apprenticeship. We want something to say that they shall serve a certain length of time before they can be recommended as competent to perform any part of the business pertaining to the art. This is what we want. I think it is the very thing to do it.

MR. HALL: There is one difficulty that comes in the way of a definite time for the apprenticeship of young people in our business.

Some years ago, in New England, I used to learn quite a good many for from $25 to $40 apiece, but of late years I have declined to take any apprentices; and I have invariably found, in my experience, that some men would know more in six weeks than others would ever know in their lifetime about photography.

I noticed the other day a very fine photograph in the *Philadelphia Photographer*, made by a young man whom I learned the rudiments of the business. He only stayed six weeks, and went out to a farm during the summer. In the fall he came to me to see if I could give him a situation. I told him no, but that I thought that I knew a man that would. I wrote to the gentleman as to taking him on. He replied he had been thinking of changing; that he had a man with him who had been with him some years. He did not like him. I recommended this man to him, telling him what I knew of him, and what the prospects were of his becoming an artist, and he intimated to me that if he had a mind to be at the expense of coming to his place, he would talk with him and see what he could do. I told the young man, and he went to his place, some twenty-five miles away.

He told him to go to work a week, and he would see. In less than six months there arose a competition for this young man's services; and he has gone on until he stands among the first in New England, while others that I have taken never accomplished anything and never amounted to anything. I could tell in ten days' time that they might as well leave it as not. They had paid me for the privilege of studying (laughter), and of course I had to let them stay.

Now, under such circumstances, is it fair to bind a man down for three years, unless you pay him in accordance with his services, whereas another one at the end of three years will not know anything about the business, cannot attend to it, and will not attend to it? If you are going to pay him anything like the compensation, I think there is an equality that we should make, or rather we should make an equality by culling out, and if we find an apprentice who is not adapted to the business, at once tell him so and send him away, which perhaps would be the best way.

A MEMBER: Perhaps there is another idea connected with this report. It is generally conceded that if you want a lad to learn a mechanical business, he must go and stay for some time until he has got it into his head, and experience has taught that he must go and stay at it three or four years. The time was that he would go and stay a few weeks, and in two or three weeks learn to make a ferrotype, and then go out and make his living. If this report is adopted which the committee has brought in, by and by the general public will learn, young men will learn, and parents who wish their boys to learn the business will come to learn that their boy has got to devote his time to it, or he cannot learn, and that, too, for three or four years, and they will find out he cannot learn all about the business in three weeks.

MR. HESLER: I think the compensation is covered by the resolution, if the man is competent. The only change I would recommend is that instead of its being three years, that we make it seven. A man goes to an academy and a college before he can be a minister, or a physician, or a lawyer, and he has got to serve his seven or nine years of study, and in any other kind of business they have got to serve their time. A shoemaker, blacksmith, and carpenter,—all have to serve their allotted time of apprenticeship, and stay at it until they attain a certain age. I see no reason why we should not adopt the report.

MR. FITZGIBBON: The case which Mr. Hall cites is a very uncommon one. You will not find such a man in a thousand persons that apply to learn photography. Under that resolution, we are to take him one month without compensation. Either the President or any member who is here present can tell, who is conversant with photography, can tell enough in thirty days if the person has the metal in him to make a photographer. If he has not, discharge him. The taking of men for $75 or $60, and putting them through in sixty days' time, will give us no artists.

There are some men whom you can take hold of and make good artists in time, but everything takes time. I do not see why we should be compelled to take young men and keep them sixty or ninety days, or six months, and turn them out full-fledged artists. I have been thirty-two years working at this profession, and I consider to-day that I am not perfect.

MR. BARBER: I would like here to say that I am like the young men that have been referred to. I made the first ambrotype that I ever made after I saw one made. That is all. I never had any other instruction, and I believe I paid twelve dollars for learning to make that ambrotype. All the rest of my experience is self-gained, and all the rest who have had that experience know it to be an uphill road. I say in duty to apprentices, we should have some such system as is recommended. I for one am in favor of its adoption.

MR. THORP: I think we had better accept and adopt this report; at the same time I am aware that this is only a temporary expedient. We must look beyond this for the solution of our difficulties. This is simply at the best a man writing after his own copy. If a man learns the business and knows less than me, I keep him, or I discharge him if he knows more. It is simply writing after our own copy. There are some gentlemen of the Association who could turn out good apprentices in that way. There are others who could not turn out apprentices in three years or five years, that would compete with some of the best, and those of us who are not very expert at the business. Our apprentices will not be expert or accepted as employés by those who are more so. At best it is only a temporary expedient. It is the best thing that offers that I see, yet I am in favor of taking it, looking for a better solution of this question in the future. We have got to have institutions of learning in this business, or we are not on a par with the other professions.

At this point there were several calls for the question.

MR. HALL: Perhaps my remarks may be considered as speaking against the report. I did not have any such intention. I did not quite understand how we were to get at the trying of the apprentices in the first place, for it is well known that some would never make photographers. I thought that point had been overlooked.

The explanation of Mr. Fitzgibbon satisfies me on that point.

The question was again called for.

THE PRESIDENT: If you will hear me I will give you a couple of illustrations or examples of my early experience.

Mr. Weston, an old photographer of New York, once told me this: That a man came to the city of New York to learn daguerreotyping from him. To show you people nowadays have found out that they have got to study a little, and to show you the difference at that day. He came to learn daguerreotyping of Mr. Weston, and came and made a bargain for his camera and a set of instruments to go to work.

Mr. Weston buffed a plate by the old back-breaking process, coated it, tried it, and the picture came out all right. The man said if that was all there was to it, there was no need of his staying there paying hotel expenses. So he took the camera and went away. In about two weeks he came back with the camera, holding it by the tube, saying, "It is not worth a cent; it will not work at all;" and that was his idea of doing business. He only wanted to see it done once.

Now I will give you an account of a young man and what became of him.

A young man came to me to learn daguerreotyping. You all remember, who are acquainted with that operation, that we used to take a pint bottle and put in so many grains of hyposulphite of soda, and another bottle with so many grains of gold, and one was to be poured into the other. If we poured the hypo into the gold it would spoil; the gold must go into the hypo to prevent and never make any mistakes. I always had the gold in the little bottle. I had in vain tried to teach the young fellow how this ought to be done; he could not learn. You readily can understand that the contents of the large bottle could not be poured into the other. You will see the ridiculousness of the thing when you think of it. I asked him about it, and he said he could not tell. I let him go one day more, and then asked him if he remembered which bottle was poured into the other. He said he was sorry but he could not tell. I then sent for his father to come and take him home. I was afraid he would get lost.

MR. WILSON: I should like to see this report not only accepted and adopted, but its suggestions thoroughly carried out. I believe if there is anything we want at this time it is something of this kind.

By apprenticeship we do not mean the old idea of apprenticeship; we mean taking a man, woman or child, and keeping them a certain time under instructions. As our friend has said, a man cannot go into a machine shop and see a sledge-hammer or nail-hammer used and say he is a full-fledged machinist. Certainly not. Neither can he go into a photographic establishment and learn our art in all its details in a short time. I think that we should make this matter not only a matter of interest, but a matter of duty. I think that it is the duty of all who are in position, and can do it, to take apprentices who apply to them, or seek them out, and instruct them in photography.

My reason for this is because we need skilled photographers in the business. We all know how difficult it is to obtain good help. Now it seems to me there is no other way than to instruct it. The establishment of apprenticeship is to place a gate in the way of any entering the business without proper instruction. Therefore I think it is the duty of all who can, to take apprentices, and so instruct them thoroughly. The only way is to make it a question of time. The question of pay you can settle for yourselves, and make the time three years, and instruct nobody until they agree to stay that time.

If we can accomplish this we shall take a step in the right direction, and it will tend towards the progress of photography. (Applause)

THE PRESIDENT: Gentlemen, are you ready for the question on the acceptance and adoption of the report of your Committee on Apprenticeship?

The question was loudly called for, put, and unanimously carried.

MR. SOUTHWORTH: I think that we ought to have a vote of thanks given to the committee also.

THE PRESIDENT: Your motion will be in order.

MR. SOUTHWORTH: I move we express

our appreciation of their (the committee's) labors for the past three years, and express our thanks for their services. I think that they deserve a vote of thanks as well as any of the officers.

(Carried.)

THE PRESIDENT: I have a communication which it will give me great pleasure to read. As it covers considerable ground, I will read it carefully. It is worthy of our attention at all events.

To ABRAM BOGARDUS,
President of the N. P. A.,
GREETING:

I send to the members of the Association, at this, the fifth annual meeting, my best wishes for their health, happiness, and instruction, and hope every individual member may leave the meeting chock-full of satisfaction. I feel sure that this meeting will be a success, and am only sorry that I cannot be with you and behold its treasures, and listen to the voice of wisdom and experience.

Not being present, I cannot introduce a subject, but I can suggest one. and hope some member may be impressed with its importance, and introduce it to the notice of the Association in the form of an amendment to the constitution, or at least ask that the matter may be referred to a special committee; to report, if possible, at the present meeting.

The subject is, the *duties of the Vice-Presidents*, as at present it is nothing more nor less than an honorary office. I would have it a *working one*. He should be to the State what the Local Secretary is to the Association. He should be the State representative; the local interest of the State should pass through his hands. It would lessen the work of our Secretary. It would tend to increase the membership of the Association, and to consolidate the interest of the photographic fraternity in his State. Could, or perhaps should, call a meeting of the craft at least once a year; which, in our State, could be done to advantage at and in conjunction with our State Fair; at which time could be held an exhibition. He should, if possible, be located at the commercial centre of his State; should look to the transportation, and such like matters, and to the interest of absent members; collect dues, and look up new members; in fact it is nothing more nor less than a system of a division of labor.

But I will not take up more of your valuable time. I could talk this matter more in five minutes than I can write in an hour, and perhaps with much better success. Should it be deemed of sufficient importance to be taken into consideration, I shall feel it an honor in having introduced the subject.

I also regret not being present, as I intended to have practically demonstrated the working of a special dry-plate process, SIMPLE AND SURE.

I am, with much respect,
Yours fraternally,
JEX BARDWELL.

MR. WEBSTER: I move that the suggestion be adopted, and that the President be authorized to appoint a committee to take action upon it.

A MEMBER: I second that resolution.

MR. THORP: I do not quite understand the motion.

THE PRESIDENT: The resolution is, that this matter may be referred to a special committee to report at the present meeting of giving the Vice-Presidents something to do, and that the chair appoint.

MR. THORP: I second the motion.

MR. WHITNEY: About three months ago perhaps some of you saw an article in the journal—

THE PRESIDENT: Yes, sir; I saw it.

MR. WHITNEY (resuming): It was in relation to the same subject. I hope that matter will be adopted by the members present, that the Vice-Presidents of this Association may have something to do.

THE PRESIDENT: The matter will require an alteration of the constitution.

MR. WILSON: You can do it by a resolution.

THE PRESIDENT: The question before you is upon the appointing of this committee to give something to each of our Vice-Presidents to do. I am ready to hear from you further on this question.

Resolution agreed to.

MR. HESLER: I would suggest that the Permanent Secretary be added to that committee.

MR. WILSON: He has got enough to do.

THE PRESIDENT: I think he has got enough to do.

MR. WILSON: It will not be possible for me to act upon the committee.

MR. WEBSTER: I am not willing to accept your suggestion. While I believe Mr. Wilson has got the interest of the Association at heart, still he has labor enough upon

him to do without adding another burden. Give the work to the committee; that is the place to put it.

MR. WILSON: I thank Mr. Webster for that.

MR. HESLER: I withdraw my suggestion.

THE PRESIDENT: I will name the committee later in the session. I read—

MARION, O., July 2d, 1873.

EDWARD L. WILSON,
Secretary N. P. A.

DEAR SIR: The subject embraced in the inclosed preamble and resolution was talked about, and considerable discussion had in reference thereto, at the St. Louis convention, but no action was taken. If no one has a similar document to present before the Association, will the Secretary please read the inclosed paper at the proper time and place, and oblige a member of the N. P. A.?

T. B. PRENTICE.

WHEREAS, Many photographers who are members of the National Photographic Association of the United States keep open their galleries and studios upon the Sabbath, and perform labor upon that day in direct violation of the law of God as embodied in the Fourth Commandment:

*Therefore, Resolved*, That we, as a national organization, discountenance all such desecration of the Sabbath, and recommend its observance in an appropriate manner as eminently proper and becoming on the part of a civilized and Christian people.

T. B. PRENTICE.

The reading of this communication was received with prolonged applause.

MR. DECKER: I move the adoption of the resolution.

THE PRESIDENT: The motion is before you on the adoption of that resolution by this Association.

MR. RHOADS: I would amend that with the request to all photographers of the United States to close on Sunday whether members or not.

MR. HESLER: There is no one thing that tends to so much debase our art as men working on Sunday. I sincerely hope that this resolution will be carried out.

MR. HUSHER: I offer this as an amendment—

THE PRESIDENT: I have an amendment to the original resolution already; don't give me another.

MR. HUSHER: I was going to suggest, if it could be embodied in this resolution, that those who persist in keeping their galleries open on Sunday be declared unfit for membership in such a body as this.

MR. WEBSTER: I believe there was no second to that. I am prepared to say, Mr. President, this much, that there are a large mass of respectable citizens in the United States who do not believe that what Mr. Husher may term the "holy Sabbath day" is the Sabbath. They do not believe it, and the very moment you bring politics and religion into this Association, it goes up.

This is not a religious or political association, in any way, shape, or fashion. It is founded and based upon the principles of the photographic art. I believe in the Sabbath day. I am a member of and hold communion with the members of my church at home. I am respected in my church. I know it. But the very moment you bring these questions into this Association you had better drop the Association.

I oppose the resolution in that way, or in any way, shape, or fashion, for I know that there are before us respectable photographers who believe in, and prefer, Saturday to Sunday. I know it; therefore I say you have no right to draw these lines and let it go out to the world that there are lines of this kind drawn here.

It is well known that the Bible cannot be read in the public schools, or in a great many of the public schools, of this country. You cannot read the Bible there. I was raised, from a child, to read a verse in the Bible every morning and evening. When I attended school, I did this. I do not blame these people that they were raised differently from myself. But I say to you they are just as respectable as I ever pretended to be. Therefore, I say, Mr. President, wipe out anything in the shape of politics, and everything in the shape of religion; drop the temperance cause, and place yourselves firmly upon the photographic foundation. This is what we are here for, and nothing else.

MR. VEEDER: I agree with Mr. Webster. I have been a professor of religion

for nearly thirty years, and to-day, after fairly and thoroughly investigating the question of the Sabbath day, I stand on the ground that we are not under Moses, but under Christ, and that the law of Moses is not to us, but that the Sabbath day is holy, and we must keep it so. I do hope, as Mr. Webster says, that this will not be inflicted upon the Association.

MRS. THOMPSON: I wish to say that no organization that is not founded upon Christianity stands for long, and I say, as a member of this photographic association of America, that I would not give up the practice of keeping the Sabbath even for the sake of this Association, which I hold in so high esteem.

MR. WILCOX: I was about to say I can bring a practical illustration before this assembly. I have a competitor, and I presume to say that he is here present, as he was to be here to-day. Every Sabbath morning he opens his gallery, say at nine o'clock, and keeps it open until five in the afternoon. He has more to do on that day than on any day in the week. He has, however, a certain class that I don't care about

MR. THORP: Allow me to rise to a question of order. The gentleman is intruding upon personalities.

MR. WILSON: I call for the question.

THE PRESIDENT: I was not listening particularly to the gentleman's remarks.

MR. WILCOX: If I am saying anything that I ought not to say, I ask the Association's pardon. It was not intentional. I would say this, as the lady from Massachusetts has said, that the respect for the Sabbath is worth more to the National Photographic Association than the Association is to its members; that it (the Sabbath) is worth more to the photographers of the United States than the National Photographic Association.

MR. WILSON: I merely wish to say one word, and that is, I think that this matter, like the amount to be paid to the apprentices, is one to be settled in the individual member's own heart and conscience, and I therefore call for the question.

MR. WEBSTER: I am really not willing to have that question brought before the Association. I move it be laid on the table.

MR. FITZGIBBON: The very moment you introduce that question, you take away the foundation of this Association. Bring in religion or politics and we are gone. I shall second the motion of Mr. Webster, to lay the whole matter on the table.

MR. BENDANN: When I joined the National Photographic Association (I believe I was one of the original founders of it), I was not aware, sir, that I joined a religious association; and as Mr. Webster said, as soon as you introduce politics, you are gone forever, and from that moment.

MR. THORP: With a motion to lay on the table, I would pray you—

THE PRESIDENT: The motion to lay the whole matter on the table is before you; it is not debatable. Are you ready for the question?

Question called for and agreed to unanimously.

THE PRESIDENT: There is another communication to be read. The Secretary will read it.

MR. WILSON: Last year there were several parties who had papers to read, who did not report them until the last day of the session; they were therefore not read. I specially request if there are any members who have papers to read, they will please notify the Permanent Secretary as soon as possible, so we can give them a place on the programme.

THE PRESIDENT: We shall meet this afternoon at three o'clock instead of two o'clock, and then we will hold the session until six o'clock; you will be tired out pretty well by that time, of course.

The programme for the afternoon was read by the President, who also said that, in the evening, at 8½ o'clock, there would be delivered a lecture on "A New Train of Thought," illustrated, by G. Frank E. Pearsall.

I will now appoint the committee in regard to the duties of Vice-Presidents, and I want to appoint some gentlemen here whose names I cannot call. As Chairman, A. S. Southworth, Boston, and Messrs. Bingham, Folsom, Harris, Rawlins, and Whitney.

MR. HESLER: Could you add the District of Columbia?

MR. SOUTHWORTH: I think Mr. Whitney has duties on another committee that would prevent us all getting together until another day.

THE PRESIDENT: If you report any time before we adjourn it will be sufficient. It is not necessary to report to-morrow; a motion to adjourn is now in order.

MR. WILSON: There is just another matter that will take but a minute. On Friday, I think it is, we have our discussion on collodion and so forth. Mr. Bingham of Michigan has a very important matter on this subject which will require in the meanwhile some experiments to be made He would like to have the President appoint a committee to assist him; say five good dark-room workers. Perhaps the best way would be for some persons to volunteer who are willing to work on that committee.

THE PRESIDENT: I am afraid you will have everybody up on the floor.

MR. WILSON: We want five good dark-room men. The committee who volunteered were Messrs. Long, Webster, Black, Collins, and Rawlings.

On motion, adjourned.

*SECOND DAY—AFTERNOON SESSION.*

The session was called to order by the President, who read a letter from H. G. Fetter, Logansport, Indiana: "Inclosed, find five dollars. I am sorry, you may be assured, that I am compelled to forego the pleasure, for the first time, of enjoying myself with you all, both socially and photographically. I am suffering from an accident which the above item will explain. Be pleased to remember me to my friends," &c.

He was thrown from his wagon and seriously injured, and disabled from meeting with us, which we all regret.

The first article we will listen to is a paper on Art, by an eminent sculptor, to be read by Mr. Baker.

Mr. Baker is engaged, but will be here presently.

The next paper is one on Art Education, by Mr. R. J. Chute, one of our members, whom we will now listen to with pleasure.

MR. CHUTE: Mr. President, Ladies and Gentlemen—When I prepared this paper I did not know this question would claim so much attention before the Convention. I am glad that it has. Perhaps you will be the better prepared to receive all that I have to say.

Mr. Chute read as follows:

## ART EDUCATION.

GENTLEMEN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION: The question of applying the principles of art to photography, and producing pictures with "pictorial effect," has agitated the fraternity for several years, and has received, in some measure, the attention that its importance demands. But no definite move has yet been made to supply the necessary means of education which alone can accomplish the desired end, though plans have been devised, committees appointed, and the matter considerably discussed. I refer to the questions of apprenticeship or the establishing of a photographic college or colleges, but whether these schemes contemplated the study of art from its rudiments up as a part of the requirements of a photographic education, has not been developed by any report yet made.

Now, the necessity of art education is felt and admitted by none more than by the aspiring photographer who finds himself deficient in that respect. He studies and strives, and year after year witnesses the improvement he makes till he comes to hold a place among the highest and best—a place that has cost him years of patient study and practice; while his neighbor, who commences with an art education, takes his place in the front rank at once and becomes a standard for others to copy or emulate.

The question then is, how can a knowledge of the principles of art best be acquired? This question is beginning to press itself upon us, and every year its demands will become still greater. It is a question that not only requires provision for the present,—that all photographers at present in practice may qualify themselves so as to produce work according to the rules of art, except such perhaps as are situated in remote localities,—but it demands that we should provide also for the future. The photographer of the future—of say the next generation—must be an artist in every sense of the word; and as proficiency is seldom acquired except by long and patient study or practice, it should commence with the elementary teachings of youth, and

grow with the growth, so that in the mature development of the mind art will hold as prominent a place as the three great branches of learning that used to constitute the sum total of a common-school education—viz., reading, writing, and arithmetic.

We are all interested in some particular direction; some special part of our practice holds a more prominent place with each one of us than anything else; but I believe it is with a very large number of the members of this Association, as with myself, that art-knowledge is the first and most important requirement of all.

The suggestions I have to offer for your consideration at this time are no wild or visionary schemes, however,—impracticable in theory, untried in practice, and perhaps impossible of fulfilment,—but are legitimate in every sense of the word; having no less an authority for their practical utility and ennobling aims than the ever-progressive and intelligent State of Massachusetts. The following, from the laws of that State, was approved May 16th, 1870.

"SECTION 1. The first section of chapter thirty-eight of the General Statutes is hereby amended so as to include drawing among the branches of learning which are by said section required to be taught in the public schools.

"SECTION 2. Any city or town may, and every city and town having more than ten thousand inhabitants shall, annually make provision for giving free instruction in industrial or mechanical drawing to persons over fifteen years of age, either in day or evening schools, under the direction of the school committee.

"SECTION 3. This act shall take effect upon its passage."

Here, gentlemen, is the solution to this problem. Here is the door thrown *wide* open that insures instruction in the principles of art to all who will avail themselves of it, "without money and without price." This is one of the grandest educational movements that has ever been made, and will in a few years, if adopted by other States, revolutionize the art industries of this country, and perhaps of the world; so that instead of nearly all our elegant designs and choice works of art coming from abroad, we will be able to lead them of the Old World in the finer realm of thought and feeling as we have in the general enterprises of the day that have given us such growth and prosperity as a nation. The boys and girls of to-day, in the old Bay State at least, will be artists by education when they become men and women; and with the musical education which now goes hand in hand with art in the public schools, they cannot fail to have a higher and finer sense of all that is beautiful and good, and consequently enjoy a more refined and advanced state of civilization.

Now, it is to this elevated condition of society we will have to cater in the future, and it behooves us to be on the alert that the schoolboy does not get ahead of us in his knowledge and appreciation of what we do. In order to command confidence and respect, the artist *must* be in advance of his patrons in knowledge, taste, and artistic feeling in his particular department.

This plan of art education as now practiced in the common schools of Massachusetts is one that should interest us as a class, or as an association in the interests of photography, as much or more than any other industry in this country. And as this Association is the only organization interested in this matter that is *national* in its composition, it holds the best position for giving an onward impulse to this glorious movement. I therefore commend to your earnest consideration the proposition to authorize the Executive Committee to memorialize the State Legislatures throughout the country, where no action has been taken in this direction, and appoint a committee of one from each State to see that the matter is properly presented through some able member of each Legislature, for the passage of a law in reference to art education similar to that in Massachusetts.

I would also suggest the propriety of urging upon local associations the adoption of the plan I am glad to see has been put in operation in one of the societies of Chicago, until the passage of a law that will insure them *free* instruction. With such a course of study in our local societies, I believe a new interest would be developed, and, side by side with the beautiful productions of photography, might be shown the proficiency acquired in drawing and the knowledge of art. With a competent teacher, blackboard exercises might be introduced during a part of the session of the regular meetings, thereby giving greater variety, adding a new interest, and imparting the instruction so many of us need.

Now, this is no scheme for the benefit of any particular individuals, but is presented with the hope that every photographer, from Maine to Texas, and from the Atlantic to the Pacific, will be benefited by it.

If there are any that doubt the practicability of a movement of this kind, they have only to investigate the matter and see the influence that art education has had upon the people in the countries of Europe, where it has been regularly taught, to be convinced of its utility. Give us

art schools in this country as they have in England, France, and Germany, and we shall soon be no longer *imitators* in photography as we have been, but will show sufficient originality and versatility of resources to be considered masters in our profession, and be copied rather than copy.

Massachusetts saw the need, and took hold in the right direction. Two annual exhibitions have been held in Boston, which attracted thousands of people, and showed the progress being made. The whole movement there is under the direction of Prof. Walter Smith, State Director of Art Education, a gentleman who has had a wide experience in the art schools of Europe. Since occupying his present position, he has written an elaborate and interesting work on "Art Education," and I will close this paper with an extract in reference to "Art Education in Public Schools." In speaking of the influence of art knowledge in "improving all branches of industrial trades and manufactures," he says:

"The success of these experiments has been so great, that several European states at the present time owe their prosperity in no slight degree to the artistic excellence of their manufactures, brought about mainly by their cultivation of art education.

"The time has arrived when the government of the State of Massachusetts has viewed the matter in the same light; and thus we are upon the threshold of a new fabric,—a system of art education for the State, which will undoubtedly foreshadow a national system of secondary education.

"The means whereby such a system would be best organized to meet the requirements of all classes of society, and keep supply and demand in their true relationship, has been a great problem to the educationists of this locality, as it has been previously to the educationists of the Old World. There are three sections of the public to be educated: children, adult artisans, and the public generally, who come under neither of the first two divisions. How this has been provided for in most of the European states I may here shortly describe. For children, elementary drawing is taught as a part of general education in most of the public schools; for adult artisans, night schools and classes have been established in almost all towns or populous villages; and for the general public, museums, galleries of art, and courses of public lectures on art subjects are becoming general. Upon the comparative value of these several means there may be and is much difference of opinion; but upon one point there is a general agreement, viz., that *to make national art education possible, it must commence with the children in public schools.*"

Mr. Chute (resuming): Mr. Chairman, I present at this time the propositions that are laid down in this. I hope they will be properly brought before the Convention tomorrow morning, during the business session, and acted upon. (Applause.)

Mr. Wilson: I desire to present a paper on a subject which is of interest to us all, by Mr. George B. Ayres, author of *How to Paint Photographs.* Mr. Ayres expected to read this in person, but writes me that he is unavoidably detained in Philadelphia. His paper is as follows:

## THE RELATION OF THE PHOTOGRAPHER AND THE ARTIST.

BY GEORGE B. AYRES.

There are two parties in our profession that need to be better acquainted; I mean the photographer and the artist. Perhaps it would be more correct to say that these two parties are *not acquainted* at all!

We hear a great deal about "harmony;" harmony between the operator under the skylight and the manipulator in the dark-room, harmony between the collodion and the bath, harmony between the silver and the toning solutions. We also strive for harmony between the photographer and his patrons; but who thinks of or considers the harmony which *should* exist between the photographer and the artist? Yet how plain is the case and how great the necessity for such a relation! They labor conjointly for the same result, upon the very same basis; but "how shall two walk together unless they be agreed?"

Can the builder rear the edifice if the architect has furnished an impracticable design, or miscalculated his ground-plan? Can the steamship traverse the trackless waters if the engineer be heedless of the pilot's signals? Can the artist produce a *good* specimen of brushwork in color or ink if the photographer gives him *any sort* of a print? No; success is no more to be expected in the latter than in the former cases.

There are many galleries throughout the country in which the "worked up" pictures are considered a sort of bugbear, or altogether a nuisance! The customer's order is accepted with fear and trembling; numerous attempts are made to get a print which the photographer feels that he *dare* send to the artist; no care has been taken to secure information in detail with reference to color; the artist receives his print with the photographer's stereotyped apology, "It's a

poor thing, but the best I could do;" and the result—would it be strange if it were otherwise than *failure?*

In this way failures often accumulate to such an extent as to dishearten the photographer, and he almost concludes to accept no more jobs of the kind.

That *such* a condition of affairs is *wholly unnecessary* is perfectly manifest to any one who will properly consider the matter. Investigation will show that it arises simply from *the lack of attention to the matter of plain paper printing as a fundamental and necessary item of photography*, as well as indifference to the fact that *an artist cannot return good work unless he be furnished with good prints.* Photographers will spend days and weeks and exhaustless patience in unnecessary "retouching," who really seem not able to afford a single hour for experiments in salting and silvering. Indeed, it has been deemed a matter of such slight importance—and so simple and easy too!—that *experiment* is useless and unnecessary.

Why, gentlemen, (would you believe it?) there are hundreds of photographers — outside the National Photographic Association, of course,— who do not know there is a right and a *wrong side* of the paper itself; perhaps cannot *see* it after they do *know*, or tell *which side* should be printed upon!

Many think too, that the *back side* of an albumenized sheet is just as good for a print as genuine plain paper. Also, that matters of shade, tone, proper vignetting, suspicions of hypo, and other considerations, are not to be regarded in the least degree. Blissful ignorance!

Neglect of these things, however, is a serious mistake. The qualifications necessary in successful plain paper printing are *not* simply *auxiliary* to working with albumen. They occupy their own sphere and have their own honorable importance. Wherever plain paper is but "second fiddle" to albumen, the work and the results will be alike second-rate.

To repeat a comparison I have already made, I will liken the photographer to an architect and the artist to a builder; for, assuredly, does not the artist raise his structure upon and according to the foundation as given him by the photographer?

Now, it is evident, we would decide that architect to be a very incompetent one who should furnish an impossible plan, or one which would at least make it a matter of serious concern for the builder to accomplish. What follows then? Why plainly that the architect must so far *understand* the builder's business as to *know* beforehand *just what* the builder *can* do, and what *ought* to be done.

A precisely similar relation exists between the photographer and his artist, and the sooner my hopes for a more intimate knowledge of each other is realized the sooner will brushwork become easier, better, and more profitable. While I am happy to say there *are* those of our fraternity who appreciate and carry out in their daily labors the points I urge, I regret to add also that years of practical observation in my artist-life compels me to admit that perhaps as many as three-fourths of photographers, in general, have little or none of the knowledge of which I have already spoken. How soon shall we see manifested a disposition to *learn?*

But methinks they inquire wherein do these deficiencies exist? I cannot, of course, answer in detail here, and especially without examples to illustrate: but I think I may venture to say that if you bring to me one hundred prints, on the average—just as they are commonly sent to the artist—I will pick out seventy-five of them as being susceptible of correction and improvement, to say nothing of those utterly unfit, and give a good reason for my doing so.

Some will be found too light or too dark in shade, considering what the subject is; too gray or too red in tone; yellow, or speckled, or muddy; too angularly and sharply vignetted; badly located on the paper; with unsightly edges when cut out from the background; spots remaining, especially in the lights, and which should have been touched out of the negative; a certain amount of pencilling to fix the highlights or relieve the intenser shadows of the flesh; softening of harsh lines without obliterating them; and "many other things too tedious to mention."

Remember now, if the photographer *understood*, even in a general manner, the routine of the artist's working, and had also a *desire* to make these "crooked places straight and the rough places smooth," these prerequisites would naturally *suggest themselves* to him, and he *could* make his print irreproachable.

But, unfortunately, it is not thus. The photographer is too apt to compliment (!) the artist by presupposing an amount of recuperative ability which he does not possess, or even aspire to; and the customer is not unfrequently assured with respect to certain difficulties or objections, "Oh! yes, *the artist* will fix *that.*" But *can* he, always?

Furthermore, how many photographers, I wonder, ever think to *consult* with the artist beforehand? There are many prints made in one

way, and perhaps the poorest, for which the artist might suggest another and a better. The experienced artist may often discover in a very ordinary picture the *basis* for something very good. He will also point out the expediency of making a certain copy large or small, or of making one print dark and another light to attain the desired result. In his mind's eye *he* sees the end from the beginning.

If the photographer grieves over the want of focus in a child's restless fingers, the artist meets the emergency with a rose! He adds an accessory or puts something into the background which gives *meaning* to a position that would otherwise be seemingly idiotic. He metamorphoses some objectionable mass, which the photographer cannot get rid of, into a flowing curtain. Indeed, his ready brush is only too seldom brought into requisition in this way, and, of course, the profession is deprived of a valuable instrumentality for good, and the credit of producing results containing ideas which shall not always be denominated "mechanical" and unartistic.

A word now about compensation. "What is your *price-list* for the trade?" is too often the first idea, rather than "Let me see *the quality* of your work;" and the former point too often decides whether or not the artist shall be employed. In general, photographers estimate the artist's ability according to whatever sort of picture he has been able to make with *their* prints, which is a tremendous error; for, as can be readily proved, there *are* prints by the thousand, from which Raphael himself would shrink! An ordinary worker will be quite as likely to do *all* that *can be* done with a bad print as a superior artist; whilst it is also very certain that *the bad print* requires decidedly *the greater amount of time and labor*, and, consequently, the artist demands *the more pay!* Thus it is evident that photographers stand in their own light by non-attention to these requirements; and I say without hesitation that from one to five dollars can be *saved* on the majority of pictures, if photographers would furnish such prints as will save time and work to the artist.

I believe, and I always publish, that *I expect* to be paid *a fair compensation* for my time and work (the quality being also considered) given to the particular job in hand, while I also assure my photographer-patron that *he* shall reap all the advantage I can give him in the matter of price. Thus I may, at different times, have two prices for the same size, according to the amount of work which each picture requires to complete it.

Feeling that I may have already trespassed beyond proper limits, I will conclude by reiterating my *hope for a better acquaintance* between the photographer and the artist; a more intimate union in sympathy, consultation, responsibility, and compensation.

To my mind the result will be *sure*, in better feeling, better work, and better pay.

THE PRESIDENT: You will now have the pleasure of listening to a paper on Art, by an eminent sculptor.

MR. BAKER: Mr. President, Ladies and Gentlemen—The paper which I am now about to read to you, is one of great importance and value, and I want to ask you to pay great attention to it, because it is of the greatest importance; and my voice is not so strong as it might be; it is rather fine, so you will have to keep pretty still.

Mr. Baker then read the following:

## ADDRESS BY A SCULPTOR.

A great critic speaks of Giotto's famous tower at Florence as a "fine question pointing heavenward." I think this phrase may subtly characterize man, so long as he is in progress, and maintains a teachable spirit. The attitude of asking more light seems most fit and profitable for himself. So I have been trying to find out what is meant by some of our common and great words and phrases. The entire depth and breadth of a word is not easily grasped. For instance, when a definition of the word "art" is wanted, plenty of definitions are found; but they are incoherent. The ancients said, "art is a sport or play," but it is something more than that to some of us. I have heard a blacksmith talk of the art of shoeing horses, and asking him what he meant by it, he said the art of it was the best way of doing it. Art is the best way of doing a thing. The two definitions, different as they are, touch each other; for the most skilful work is akin to play. So there is an art of horseshoeing, and an art of shipbuilding, and a lost art of cooking; indeed, an art of everything which man does with a purpose. So far as any of these arts give pleasure independent upon utility, they may be characterized as fine arts. The tie between bull-baiting and historical painting is not very evident, nevertheless it is there, and there is probably an artistic way of baiting bulls. It seems to me that the term fine arts applied exclusively to a few of the more costly modes of artistic activity, as music, poetry, and painting, is confusing. The decoration of a chair should be a matter of fine art, as the construction of a statue or cathedral; there is no radical difference, only a difference of degree. I am led to

these prosaic remarks by certain discussions I have seen in the papers, laboriously showing that photography is a fine art, and now and then a protest against such assumption. Taking into account the pleasure photography has bestowed upon the human race, and how remote its best achievement may yet be, such discussions appear unprofitable.

To consider how it is a fine art and the relation it bears to pure hand-work is worth a passing thought. A friend of mine once sat for a photograph and was not pleased with the result. Such things occur. But no one recognized the likeness. She took the proof back to the artist and proposed to sit again; but he said it must be right—the apparatus couldn't lie—and asked her whom it did resemble if not her. She couldn't produce anybody that the likeness fitted, and so had to take it. This photographer was not an artist—that is to say he had no individuality, for that makes the artist. Pictures were all the same to him—the sun and the chemicals made them and it wasn't his business to meddle. He had faith. But one can easily see what is due to individual effort in photography by sitting to several photographers for a likeness. Results will exhibit differences as marked as those of portraiture in oil or marble. Photographs will eventually be stamped with as strong individual character as the canvases of Rubens and Titian. Such study as the painter bestows cannot be given to photographic portraiture; but in the matter of lighting the sitter, what background he shall have, what accessories, what attitude, there is an infinite choice and room for any amount of originality in style. The art is yet in its infancy, and already many photographers of artistic temperament are beginning to be felt in the character of their production. We see photographic art which represents the hard outlines of the pre-Raphaelites, and also other work suggesting the soft grace of Correggio, or the calm majesty of Titian's portraits; and we see much that does not resemble Rembrandt. It is clear that there is opportunity for individual growth and fancy. Any good photographic artist will be found to have his ideal, just as any good painter or sculptor. An ideal towards which he is striving, and from which he is always remote. He wishes to interpret the inner truths of nature; the impossible tempts him. He points his camera, like Giotto's tower, toward the infinite. And no one knows better than he that he cannot rely upon his instruments, that cameras and chemicals are but means of growth; that for all finer results he must depend upon himself. Sir Joshua Reynolds's arrogant answer to the student—that he mixed his colors with brains—fits the photographer just as well. Formulæ are good, but individual study and cultivation must be added or there is no art. All the brushes and paints in the world cannot make a painter. One of our artists who draws exquisite likenesses was asked about his method of handling. He said he didn't know anything about it—he tried to get the light and shade as he saw them in the subject. There is no danger, however, that photographers will yet awhile rest upon the infallibility of processes which they well know are not infallible. In no other art, I think, is there less disposition to settle down into schools and consequent mannerism. In no other art is there more coherence and friendly emulation, or more stimulus of organization. The spirit of enterprise and mutual aid reminds one of the ancient guilds.

The time has passed by when artists are disposed to underrate photography. I have seen the first portrait painter of this country, and one of the first colorists of any country, working patiently day by day for years to construct his ideal portrait of Shakspeare. Four little photographs of a plaster cast are the basis of that head, whatever it may prove to be. In this case the means are slow and tedious; but without these photographs there were for him no means at all. It may almost be said now that no artist works without the aid of sun pictures in one way or another. In these days few people die without leaving a more or less complete record in photography. Thus artists have gained greatly in material. A mere plaster cast of the face after death is authority relating only to the skull and long projections—but the photograph supplements this admirably. Then the subtle play of light on the features, and the marvellous minuteness of the photograph in drawing, are a means of education already felt throughout the pictorial world. I have seen rock studies in photography which were, at first, the despair of the landscape painter, and finally one of his best means of success; for, however minute and faithful the drawing might be, he could still add color, and the glamour of the imagination. The fineness and plasticity of the photograph is a just rebuke to slovenly and insufficient drawing. The disposition to look at nature through the Claude Lorraine glasses has been carried too far, and the photograph brings just that kind of truth and severity needful to set us right. It seems to me that a careful study of photography is, after the study of nature, one of the best helps to any beginner in art. It must surely correct that tendency to shirk the hard work in drawing which has been fatal to so many Turners and

Claudes. It keeps the multitudinousness of nature ever in mind, it seems to place the vision of a vastly superior eye constantly before us.

So much, and more than I have power to indicate, is photography helping the hand-worker in art. Is it not possible that hand-work has something to give in return? Retouching the negative has grown somewhat unpopular from excess or lack of skill, but seems to me quite legitimate work. But that is not the kind of aid of which I am thinking. I have lately been examining some of the best plain photographic portraits I can find, and they seem to me to be, as the artist says, "out of keeping." At first sight they appear perfect, and all right, but they don't wear well. After a little study they grow weak, and unlike good art, they do not reveal some fresh beauty every day. The likeness is there, but it is thin and spectral—the inner light fades out of them, and in a little while they are lifeless and automatic. Looking carefully for the cause of this, I think it is found in the lack of artistic cultivation in the photographer. Of course I am not competent to say how much of it is due to the imperfections of machines and materials, but the difference between an artistic photograph and a bad one is already so great that I believe much more may be accomplished with the material now in use. Whatever improvement may be made in the means, I still think true progress is to be gained by the study of photography as a fine art, using exactly the same methods employed by the great artists of all time. First, of course, comes the closest study of nature in all her moods; but, to supplement this, familiarity with the work of her best interpreters is of a certain advantage. I have said that the best likenesses in photography seem out of keeping; the light is so distributed upon them that certain features are too prominent, others too receding. The bridges of noses are widening, the ends made bulbous, and often the neck is without modelling. There are flat spaces and empty spaces. This is not the case in nature. However little there may be in the head, there is plenty of modelling on the outside. Nature leaves no blank, all is finely modelled and diversified. It is so with the work of great artists. Often a work of art is easier to study than nature. One needs sometimes a teacher, and the best pictures are the best masters. If every photographic artist could have one of Titian's portraits hanging in his studio, the result would soon be seen in our likenesses In these portraits there are no dead surfaces, there is no distortion; the soul looks forth from its windows with a lofty tranquillity.

In these likenesses there is no striving for any transitory effect. No part of the face or head is put in deep shadow, all is clear and sunny. There is no flinching from hard work. Wherever shadow is used, the modelling is continued perfectly throughout the whole. In the best faces of Titian no shadow is apparent, yet there is no flatness; they are full and round, like nature herself. And some of the best heads of Rembrandt, fond as he was of shadow tricks, are painted in this broad and sunny way. These great artists studied to give the sum of human life—not five minutes of it. We feel in the presence of one of their portraits that we have the whole individual before us, his achievements and his possibilities. They are as beautiful as infancy and as immutable as death. If there are accessories, no one thinks of them. The simplicity of such work is striking, but it is the simplicity of vast and varied knowledge. Cut a square half inch from any of their flesh surfaces, and you will find it graded with an infinite fineness.

Certainly the photographic artist, with such standards in his mind, will be ever lessening the faults in his work which are evident, and so much more evident to him than anybody else.

Few artists, of course, can study Titian or Rembrandt's works first hand; but the photographic art itself brings Titian into all our houses, at least in his sketches, which in some degree reveal his method. And for a dollar or two one may buy an autotype of hands by Albert Durer, which contain more modelling than all the sun-painted hands I have ever seen. A plaster cast of any good antique statue will afford the same aid in training the sight. Take the well-known figure of the Venus of Milo, and study the wonderful gradation of form in the bust and torso. There is delicacy and strength beyond expression in words. The artist's eye, once accustomed to refinement of good hand-work, will thenceforth demand better things of the camera, and I doubt not will find a way of getting them. We shall have less distortion of forms, less dead surfaces, dark or light; and we shall miss these stereoscopic effects, where the subject seems not only starting out of the frame, but out of its senses. This stereoscopic work indeed is characteristic of most modern art, and the hand-workers are nearly as bad off as the photographers. Our portrait statues seem as if they were made to start out of obscurity for an instant and then disappear forever. Only a few of our best artists attain anything like the grand tranquillity of the ancients. It is the result of long study—the simplicity of wisdom—not of ignorance.

The better the picture the less need of what are called "effects." I know no way so surely to train the eye and elevate the taste as Greek sculpture and the portraiture of the fifteenth century And if one wishes to see how other men study these matters and master them he may read the works of two men—wide apart as the poles, yet converging in art—Winckelmen and Ruskin. The former gropes among the tombs for beauty long departed; the latter reveals it with his flaring torch on palaces and cathedrals; but both have found the underlying principles of art, and few students can afford to neglect their teaching. It may be thought that I exaggerate the necessity of this study of art to the photographer; but believing, as I do, that photography, as an art, rests on just the same basis as all the other arts, I cannot see how a photographer can even place his sitter in the best light without an understanding of the laws to which good art is subject.

And it seems to me that the photographer may further advance himself by the study of good hand-work in the matter of composition or arrangement of his picture. I have not much to say upon so profound a theme as this, and it is hardly necessary to remark that it is the subject of all others which the student can least afford to neglect. It is indeed of the last importance in photographic, as in other portraiture, how the figure is placed, how the drapery is disposed, how the head is turned, where the hands shall rest. The least change of action produces a new combination, which may be right or wrong, pleasing or harsh. The old definition of beauty must be kept in mind; variety in unity. It must be done, but the difficulty is how to do it. Doubtless there are laws of composition, but nobody knows them, at least nobody expounds them intelligibly.

So also there are laws of color, but every great picture defies analysis. When all the objects are grouped harmoniously, and when the light and shade are properly combined, we feel it just as we love harmony without understanding counterpoint. This art of composing, which is akin to invention or creation, must always be a matter of feeling.

It depends as much upon inspiration as any human work. We do not know how or why an idea comes to us, and I doubt if any artist who has hit upon a happy arrangement of his theme can state how he found it. Certain elementary notions there are, as that there must be a leading idea to which all the facts of the picture tend—a leading light to which other lights are subordinate. But, after all, the composition must depend upon the artist's individual feeling.

There can be no doubt that this feeling, this sense of fitness and harmony, may be cultivated. It may be developed by familiarity with the works of artists who possessed it conspicuously. There are some artists who in their best days could not make a mistake. You will find false composition in their work as rare as discords in Mozart. Any work of a good period of Greek art will also be found faultless in this respect. The Laocoon is *not* of the best period, but it would puzzle a convention of modern artists to rearrange it. The infinitely subtle nature of the art of composition is shown by the failures made in restoring mutilated statues—as, for instance, the utter impossibility of replacing the lost arms of the Venus of Milo.

This art of composition is a part of photography, just as it is of music or architecture, or of any other of the fine arts. It enters into the construction of the simplest picture. One view of a face, unless it is well chosen, is often of little value as a likeness. Suppose we catch a swift glimpse of a stranger's profile; it is very little we know of his face and character until we have seen more of him. But a momentary glimpse—one look of the face—is all that a photograph likeness gives us. The moment you begin to arrange your sitter to get the most of him before the camera, you are studying the art of composition. Every change of position, every object you introduce, every bit of light and shade augments or diminishes the value of the picture. It must conform to the ancient law of variety and unity, and the more variety introduced, the harder the problem of unity becomes. It seems reasonable that the study of the masters in pictorial and plastic art would be of advantage in photography as it is in the other arts. I need only suggest among the many the names of Turner and Rembrandt as great masters of composition. Tintoret is another, who has hardly an equal; but, why, I cannot understand, his work in any form is almost inaccessible to us.

I would place the study of Greek sculpture highest of all, as the composition of the human figure seems to me the most difficult of all art; and in this the Greeks attained such consummate power that it seems they must ever remain the light of the world. It is not difficult, in the larger cities, to find at least a few of their masterpieces, which look down upon us from remote ages as if they were immortal souls. The material is cheap, but it holds the loftiest ideals of an exceptional people.

The service that photography is rendering to

hand-work in art is, I believe, in this way repaid already, if the photographer chooses to be an artist as well as a photographer.

MR. BAKER: You will observe that it is here stated that in Titian's portraits no part of the face or head is in deep shadow. That of course is very different from the way Rembrandt worked. We do not mean to imply that Rembrandt is wrong; still, Titian's way, the way of revealing everything, is considered to be the finest, most noble, because, obviously, the principle of art is to reveal, the object of portraiture is to give a portrait of the person, but conceal nothing.

This way of concealing part of the face is with many painters a trick, and it is peculiarly so with many photographers.

It is a trick, because thereby painters, not photographers so much perhaps, especially painters can conceal their lack of skill, they can use a mass of shade with very little detail, they can slight and can skim the work over. Rembrandt did not do so. However deep his shadows are you always see the details. . . . . It is due to my friend to say that I have had no opportunity of reading this but just once. This manuscript is in an entirely unfamiliar hand, which renders the reading a little bungling.

Perhaps it would be well to state my friend is a man of great attainments as an artist, and he very modestly withholds his name, and characterizes this as a rough sketch or draft of what he would have done for us if he had more time, but for myself I must say I regard this paper as one of very great importance to us all. It expresses very much my own sentiments, and I would, but not on that account, ask you, when it is published in the record of our proceedings in the *Philadelphia Photographer* or elsewhere, to read it over very carefully, and to make the article a study, and see if you cannot derive considerable benefit from it, particularly from the carrying out of some of the suggestions that he makes.

From the study of the works of our artists, the plaster casts of some of the Greek artists, containing the finest modelling and posing in the world, and it may be very easily obtained in some of our cities, some are accessible here in our art galleries, you will derive much good.

Our art gallery is very near the Rink, exactly in front of the Rink; you can go in there for a small sum and see them.

There is the Venus of Milo. There are several others, quite beautiful and valuable works of art, the names of which I do not remember.

I imagine it would pay any one to visit that place, on purpose to see these things. (Applause.)

THE PRESIDENT: I will name as the committee on Mr. Anthony's prizes the following gentlemen:

Prof. J. W. Draper, New York;
H. J. Newton, Esq., New York;
F. F. Thompson, Esq., New York;
E. Borda, Esq., Philadelphia;
Coleman Sellers, Esq., Philadelphia;
Prof. Cooke, Boston, Mass.

We will now give you something practical, on the "Treatment of Sitters," by E. T. Whitney, Esq., of Norwalk, Conn.

MR. WHITNEY: This is not a long document I have prepared. It is something I consider as practical and for everyday use.

## THE TREATMENT OF THE SITTER.

How can we treat our sitters in the operating-room so as to make them feel at home, and secure a good *expression?* I have always considered *that* of more consequence than such exquisite nicety of detail. How many pleasant expressions have been lost by an overstrained care in adjustment, in focussing, in *fussing?* What would any of you care for fault in *drapery*, or even a cramped hand (for these faults could be vignetted out), if instead of a pleasant face of some dear friend, you had a *tired*, weary, dissatisfied look. No, no, my brother; put yourself in the place of the anxious husband or father. But my object is to secure both. A skilful poser will arrange a subject gracefully and quickly, and so interest as to throw them off their guard (for they all make up their minds before they come that they are going to do this or that), but *you* must have your own way in such a manner as to *seem* to comply with their wishes.

Many years ago a distinguished man sat for his daguerreotype at my rooms in Rochester (I was green then). I knew he had been in the hands of daguerreotypists all over the country, and I asked him if he had any choice in position.

He replied, "I always let the operator have his own way." I handed him a piece of paper, "Will you be kind enough to write that down and sign it?" He wrote, "The experience of one who has often been daguerreotyped is to let the operator have his own way.—GERRITT SMITH." That paper I kept pinned on my reflector, and when sitters came in with, "*There!* I want this, and want that," I would ask them to be seated while I prepared my plate, thus giving them time to read that paper, and when I came out, they would remark, "Well, Mr. Whitney, I guess you know best about my position." When your sitter comes in the operating-room (presuming that all arrangements about size, style, and price have been arranged in the reception-room), greet him or her by name (*that*, you see at a glance from the ticket handed you). During the greeting and remarks on state of the weather, &c., you run your eye over the subject, regarding the dress, its color, style, and trimmings, and remarking as to what color this or that will take, and all the time studying the face and expression. Request the privilege of looking at each view of the face turning the body first one way, then reverse the figure. You will perceive at a glance which view is best. State to the subject (if a lady) which side you wish to take, so that any change she may wish to make in hair or ornaments may be done. Then show her into the dressing-room, while you arrange the light, and your operator prepares the plate. No operating-room is properly constructed unless you can place your sitter under the centre of the light, and work from either end (advantage of Kent's hand-screen), and your apparatus and backgrounds should be so arranged that you can change quickly. In three minutes you should be ready for the pose. Now comes the tug of war. Here gentle but persuasive authority *must* rule.

The sitter (if a gent) wanting a bust picture, will generally sit down and slide out in his chair, throwing his head up. This with some men is a difficult case. Take him by the shoulders with the request that he will sit well back on the seat, and droop the shoulders as if resting easily at home. If this fails, illustrate by personal example.

Ladies are more easily posed; if a three-quarter figure is wanted, an operating chair with movable side-arm is the best; and (if a young lady) she will almost invariably take an easy attitude if requested to sit on one foot. The arm of the chair should be raised just high enough to catch the elbow, without allowing the figure to fall one-sided. If you allow the subject to turn and twist about, to arrange drapery, &c., the position is lost. Some ladies have long, crooked necks, making the head awry. The only cure for this is the back view: face the person to the light, and turn the head over one shoulder. In cases where the nose is crooked, or inclined to one side, let that side be toward the camera. Where persons show their teeth when talking, a quick picture must be taken, and the subject constantly animated by conversation. These are hard *cases*, but difficulties *must* be overcome; and never allow a person to leave dissatisfied, if in your power to prevent it.

Children are the next and last, but by far the most important; they are the key to your success in business, therefore be patient, be kind, and play with them; never lie to them. If you cannot use a head-rest, get them to lean on their hand, or against the back of a chair; then, with a movable toy, to keep their attention, and the mother, nurse, and all the rest behind you, so that they will not feel as if left alone, your success is certain. I don't care how many persons are in the room, if they keep still, and the assistant at the camera watches his chance while I have the attention of the child, for one second.

Regarding the object to which your sitter's attention should be called, during the exposure, is of the highest importance. I use a head-rest, with two pictures; *describe* them; tell them to look all over that picture, to wink freely, but quickly. And never open your camera until you see that the expression is natural.

Mr. Whitney illustrated his ideas as to posing and the treatment of sitters by posing the President, when he remarked:

When a sitter comes into the room I might pose him in this way (indicating). Drop the chin, and then take a position in this position (indicating). Now, in this position, the nose is running off. Taken in that view you would have a very unpleasant expression. (Excuse me.)

With this view of the face towards the camera he (the President) makes a very handsome picture. (Applause.)

THE PRESIDENT: I might look pretty well if Mr. Whitney were not here. (Laughter.)

THE PRESIDENT: The subject now before us for discussion is the "Negative Bath; How to Make and Use it." Mr. J. W. Black will lead. You do not want any introduction, as you all know him. (Applause.)

MR. BLACK: I am very happy to say,

*ladies* and gentlemen. When our meetings first commenced we could not say that.

I have been requested to say something as to the acid bath.

Mr. Black then read as follows:

## THE ACID NITRATE BATH.

I have been requested by our President and Secretary to make a few remarks in regard to my nitrate of silver "acid bath." At each of our conventions, for the past three years, I have had something to say to you in relation to the bath I have used and am still using, and I therefore feel it to be too old a story to be repeated. I am aware that the bath has been tried by a great many persons, both at home and abroad, with but very indifferent success, yet a few have found it to be all that I have ever claimed for it. Mr. Ingalls, from Montreal, has been in my closet, seen the practical working of this bath, and, I trust, he will be able to state to you the facts as they are.

You may perhaps feel interested to know the circumstances which first brought this bath into use. Several years ago, when the celebrated "Bromide Patent" case was on trial, and when evidence was being taken in Boston by the attorneys for the defence, it was thought desirable to ascertain if we could not do as well *without* the use of the bromides as with them. To test this question I prepared a quantity of collodion, and substituted chlorides for the bromides, using the ordinary silver bath of the strength of about forty grains to the ounce. After several trials, pictures were made of Mr. Howson, the attorney having charge of the case, and also of Mr. Wilson, our worthy Secretary. The pictures, for those days, were esteemed quite good, and could not be distinguished from those made by the ordinary mode of working. These experiments were so successful that I felt encouraged to proceed further with them, and soon found that the strength of the silver bath, and the amount of acid used, changed the results in a very remarkable degree. I found that a silver bath of about eighteen or twenty grains, when made *very* acid, with nitric acid, gave much better results than stronger or neutral baths; in fact, that almost any result could be produced by adding more or less acid. For example, if I wished to prepare a bath to copy lines, as for an engraving, where intensity only was required, I used only a small quantity of nitric acid; but if I desired to make negatives from life, or objects from which I desired to secure delicate shadows, I added a larger quantity of the acid, which had the *practical* effect of shortening the time of exposure, and of softening the shadows in a most satisfactory manner. An *excess* of acid, however, made the negatives flat, feeble, and difficult to intensify by the ordinary treatment.

There is not probably a person present, who has not in his experience found himself making some of his best pictures after he had used his bath for a long time, and when, of course, it had become very much weakened, and full of iodide of silver. In my own experience, many years since, when I often used a bath up to sixty grains, my *very best* effects were produced when I supposed the bath exhausted and unfit for further use.

In the early days of collodion negatives, we considered it indispensable to have our silver bath of at least *sixty* grains to the ounce; but to-day no one thinks of having a bath much stronger than *thirty* grains to the ounce.

In printing, the old formulæ required something like *eighty* grains of nitrate of silver to the ounce, while at present *thirty* grains are considered ample.

In both the negative and printing-bath, the general tendency, of late, has been to use much less silver than formerly. Take, for instance, the bromide of silver emulsion process, and you will observe what a very small quantity of silver is required to produce a good, strong negative, and generally without the employment of any free silver in developing. Of the silver we use in our negative baths, but an exceedingly small percentage really goes to make the negative picture. The effects produced by a weak or strong bath are undoubtedly more of a *mechanical* than chemical nature. And, by the way, I wish to say that this is a matter which I think has been too much overlooked by a vast majority of our fraternity. I believe that the extreme sensitiveness of a plate depends much more upon the *structure* of the film than on the precise proportion of the chemicals used, or the particular kind of sensitive salts employed.

As the result of many careful experiments, I have found but little, if any, difference in the various iodides and bromides used, other things being equal. Several years ago, I prepared a gallon of collodion, and divided it equally in thirty bottles. I sensitized it by beginning with all iodide in the first bottle, and adding bromide, and reducing the iodide, until the thirtieth bottle contained all bromide. The result was truly wonderful, showing a very wide margin where no difference in sensitiveness could be detected. These samples of collodion were carefully tested in an even light on the same subject. Subse-

quently, the whole lot were thrown together and thoroughly mixed, and the whole worked well.

You will find in practice that a *soft, spongy* collodion will always be highly sensitive, for the reason that its *mechanical* constitution is such that the molecules of silver move more freely within and throughout it,—that is to say, *with less friction*, and rearrange themselves, by the action of the light, more readily than they do when enveloped in a tough or hard collodion. No doubt, a part of the success of the "acid bath" is due to these facts, for the great quantity of acid tends to make the collodion film peculiarly *tender, velvety*, and *soft*, and thus affords the most delicate gradations of light and shade. I will give you the formulæ for collodion and bath, such as I am now working, and will only say that, like all other formulæ, they must be used with *judgment*. Chemicals, particularly soluble cottons, are not always uniform, and the formulæ must be modified to suit varying conditions. For general work I use collodion made as follows:

| | |
|---|---|
| Alcohol, . . . . | 9 ounces. |
| Ether, . . . . | 6 " |
| Soluble Cotton, . . . | 108 grains. |
| Iodide of Ammonium, . | 18 " |
| Iodide of Cadmium, . . | 18 " |
| Chloride of Calcium, . . | 9 " |

The nitrate of silver bath I make of nitrate of silver, 20 grains to the ounce of water, and for every two quarts of the solution add half an ounce of C. P. nitric acid.

The amount of acid used must depend upon circumstances; you will probably require more acid. I often use as much as *two ounces* or more with success in two quarts of solution.

To develop, I use from fifteen to twenty grains of protosulphate of iron to the ounce of water, with enough acetic acid to cause it to flow smoothly.

All practical photographers know how utterly impossible it is to give an exact formula that will work to the satisfaction of an expert operator. The foregoing statements, therefore, are given only as a basis, to be managed and modified according to circumstances. And allow me to say that this is no *secret* process, but only a matter of skill to make it uniformly a success.

I do not recommend the "acid bath" because it is cheaper, and requires less silver, for that which gives us the best results is, in the end, the cheapest and best. What we are all aiming to do is to reproduce on paper, or other material, exactly what we see by the eye in light and shade. In the first place we should reflect that it requires many years of constant application and study *to learn to see* lights and shadows as they actually exist, and to know how materially forms are altered by them. To utilize such knowledge after it is acquired, so that, at least, we can avoid making bad worse, involves long practice and close observation.

I do not imagine, and I am sure you do not, that any bath, whether acid, alkaline, or neutral, or any collodion, whether soft or hard, will enable everybody to produce just such a portrait or other picture as may be desired; for such a result must be attained by the knowledge and experience of the operator, whatever the character of the chemicals or other instruments may be, through which his work is accomplished. But what I wish to fix upon your attention is the fact that, with my "acid bath," very weak in silver, and more or less strong in acid, I can, and do, not only take pictures quicker, but get also a softer and more delicate tint, more detail in the lighter portions, more strength in the darker shadows; in short, *nearer to nature* than what we usually consider a good photograph made in the ordinary way. This process rests entirely upon its own merits. I do not ask any one to pay anything for it. I can only reiterate that in my practice, for the past three years, it *has* proved uniformly successful, and, if it is of any value to you, you are all perfectly welcome to use it.

(Applause.)

Mr. Black continued: Mr. Nichols was in my place, and saw the bath work successfully. He told me he should not know the difference between the working of that bath and the ordinary bath.

I believe there is one gentleman in Louisville who has seen the working of the bath, and may support me in what I am saying.

Mr. Black was often interrupted by questions, which he answered as follows:

In all these experiments there was a very wide margin, indeed one-third at least, in the two experiments. We could scarce detect the difference in the work.

Use sufficient acetic acid to allow it to flow when the bath is new. It will take less acid than when it grows older. Then gradually increase the quantity of acid as the bath is used.

The amount of acid depends upon circumstances. It is made acid purposely; a small amount at first, afterwards it will require a good deal more.

A solution with twenty grains is a very high percentage.

For the last three years I have used that constantly. I have never been troubled with it. Never have been troubled with the bath full of iodized silver, or full of pin-holes; very rarely crystallizes. Those views in the Rink were taken with the acid bath. Some of those plates were coated in the room. Some of the plates were taken out without any preparation to keep them. We had some kept an hour and a half, and then developed with perfect success. If it had been a strong bath that would have been impossible to do, because the amount of evaporation which would take place would have crystallized the silver all over the plate. I predict that in five years to come the majority of operators will use the acid bath, and not use the neutral baths they used to do. The tendency is the other way. I admit it takes some courage to try a bath like that. Mr. Klauber assures me that he is using that bath with great success. To use his own language, he says "he is acid from his toes to his head."

MR. KLAUBER: Ladies and Gentlemen, I am no speaker; you must excuse me. I will give you just my practical work. Two years ago when I met Mr. Black at Boston, I was very happy to meet him and get acquainted with him. We had a chat about acid baths. I had been working the same as we all work.

When I came home, to use an expression, I found my boys "in the mud." Well, the first thing I did was to take my 45-grain bath and reduce it to about 30 by pouring in water, filtering it, setting it out in the sun, neutralizing it, and then, as Mr. Black told me, used the plain acid. I took for the gallon of solution which I had, about an ounce and a half of nitric acid. My operator was perfectly astonished, and thought I had ruined my bath. After putting the bath back, I did not have any collodion made up. I used my old collodion I had, although it looked a little red. I coated a plate, and it worked a good deal better than it worked before. I thought I would work the thing through, and I put in some more acid. I found the acid had done me good. (Applause.) I worked the bath for about two weeks, and it began to give out, and I used more acid (applause and laughter), and that has been my way of working for the last two years.

Whenever I find, after working the bath for three or four months, that it gives out, I take it out, reduce it, filter it, neutralize it with ammonia, set it in the sun, and, after it has all settled and filtered again, I reiodize it and put acid in. And I have not had a particle of trouble since I have been working the acid bath.

Furthermore, I used to have a good deal of trouble in albumenizing the plate, but I am now using nitric acid for albumenizing my plates, and have not had a particle of trouble with them. They all come out clean. I have for the last six months used nothing but the old plates from a gallery which was sold out, when I bought the old plates.

I used half an ounce of albumen, twelve ounces of water, and about fifteen drops of nitric acid. I wash my plates first in nitric acid water, and rinse them, and flow them with albumen, and have no trouble whatever.

I would go on and state a little further that I am using acid in my silver bath for the paper. I am using an acid bath for silvering my albumen paper, and I find it works first-rate. So, as Mr. Black says, I am acid from the tip of my toe to the top of my head, and I shall always work with the acid.

THE PRESIDENT: I am much obliged to you, Mr. Klauber.

We will now listen to a paper written by Mr. Elbert Anderson, of New York, on the silver bath. The Secretary, Mr. Wilson, will read it.

MR. WILSON: Mr. Anderson expected to be present in person, but was prevented on account of the absence of Mr. Kurtz. I take pleasure in reading his excellent paper for him on

## THE NEGATIVE BATH:

### ITS PREPARATION AND SUBSEQUENT TREATMENT.

In offering you these remarks, at the request of our President, on my method of preparing, and the subsequent treatment of the negative bath, I must state that I regard a *new* bath like

"New honors, which come upon us
Like our strange garments; cleave not to their mould,
But with the aid of use."

Take, for instance, a new shoe: it pinches, presses on our corns, squeaks when we walk, &c. It has grown into a saying with us,

"As easy as an old shoe."

So with an old bath. A perfectly new bath can never be so well "iodized" from the start but by the continual dipping of plates, and this is a point of the very first importance, as the bath, to work well, should be kept on the verge of saturation with iodide of silver. The first dozen or so of plates dipped in a new bath are apt to be harsh and wiry, lacking in mellowness and bloom; there is nothing soft about them.

There must exist a certain amount of *harmony*, so to speak, between the bath, collodion, and the developer, in order to produce the finest chemical results.

It is for this reason that I never (or except under extraordinary circumstances) make and use a new bath, preferring rather to strengthen and renovate the old one.

We are continually advised to throw down the old bath as chloride, or to put it among the wastes, and recommended to make up a new one rather than "tamper" with the old one. Against this I must earnestly protest; it is ruinous and extravagant in the extreme. My old bath has been renovated and "tampered with" ever since I made it, years ago.

The bath-holder should contain from two to three gallons of solution; certainly not *less* than one and a half gallons. A less solution is soon out of order from a great variety of causes, and the loss in silver is much greater, in proportion, in renovating a small bath than a larger one.

I have, on former occasions, written at some length and placed great stress on the necessity of procuring pure nitrate of silver and pure water for the bath. This has been done more for the benefit of learners and beginners—making great allowance for their inexperience—and have thus, perhaps, gone to extremes, which will hardly be necessary at the present moment.

I doubt much whether *any* impurity in the nitrate of silver—such as you would be likely to buy, or even make for yourselves, nor in the water, would have any injurious effect, if the bath be prepared in the manner I shall describe.

Therefore, take the nitrate of silver, such as it may be, and draw the water directly from the tap; or from the river; or from melted ice; you need not be particular.

Dissolve the silver in the water until the hydrometer indicates that the solution contains twenty grains of silver to the ounce of water.

Next dissolve iodide of ammonium and bromide of cadmium—say twenty or thirty grains of each—in three or four ounces of water, and add this, a little at a time, to the solution. It will be observed that a whitish-yellow precipitate takes place. This is iodide and bromide of silver, formed by what is known as "*double decomposition*," for the iodine in the ammonium and the bromine in the cadmium combine with the silver in the solution, forming, as I have stated, iodide and bromide of silver, whilst the ammonium and the cadmium combine with the nitric acid of the silver, and form nitrates of ammonium and cadmium, which nitrates dissolve in the solution.

☞ Please bear this well in mind, as it is an important point, and we shall come to it again presently.

The iodide and bromide of silver thus formed will, however, be dissolved upon shaking the solution, and must be added until the solution refuses to take up any more. This may be known by the solution turning milky, and the excess of iodide will be precipitated. The solution is now saturated, and, after thorough shaking, must be filtered, that this excess may be removed. Filter through three or four thicknesses of Swedish filtering-paper, when the liquid will run through *perfectly clear* (else filter again), whilst the excess of iodide will remain behind in the filter.

The solution is now placed in an evaporating dish over the fire—a gas-stove will answer. As soon as the solution begins to steam, drop in a piece of reddened litmus-paper. Next make a solution of *aqua ammonia* one part to water six parts, and add this to the solution if the paper remains red, a little at a time (stirring the while), until the blue color of the litmus-paper is restored.

As the ammonia is added, it will throw down a dense brown precipitate — namely, oxide of silver. Finally, allow the murky solution to evaporate until it is reduced one-third or more.

Whilst the solution is quietly "boiling," I will give the reasons for what I have already stated.

*First.* The water may or may not (more likely MAY) contain a certain amount of impurity, and the boiling or evaporating causes the particles of the water to expand or separate, and thus the impurity held in solution is the more easily separated and thrown down.

*Second.* The bath is purposely made up so

weak in order to allow of this amount of boiling and yet not carry it beyond the normal strength, namely, thirty grains.

Again, a strong solution of silver tends to prevent the elimination of impurity—more so than a weaker one.

*Third.* Though iodide and bromide of silver are insoluble in *water*, yet they are soluble, to a certain extent, in water containing nitrate of silver in solution,—the solubility of the iodide increasing with the strength of the solution; consequently when the solution is saturated at *twenty*, and afterwards boiled up to thirty, it will be but two-thirds saturated, which is the amount desirable at the outset.

It will be evident, then, from what I have stated, that if this ("iodizing") be neglected, and plates dipped in such solution, coated with iodized collodion, the iodide formed on the surface of the plate would be attacked by the silver solution, and be, in a measure, dissolved; thus we have taken the precaution to partially saturate the solution.

*Fourth.* The solution is filtered in order to remove the excess of iodide *before boiling*, otherwise, though saturated at twenty grains, it would, as it boiled, increase in strength and dissolve still more, leaving the bath completely saturated at thirty.

Now we do not want this absolute saturation, because as we continually dip plates, each plate introduced carries in more iodide, which cannot be dissolved, inasmuch as the solution is already full; therefore the excess of iodide will be precipitated, and, floating about in the bath, become lodged on the surface of the plates, covering them with fine crystals, which eventually give rise to pinholes.

*Fifth.* The ammonia is added to the solution in order to make it alkaline, because if the solution be at all acid (which it might be from the silver salt), this acid dissolves organic matter, and thus holds it in solution, preventing the impurity from being thrown down during the boiling.

*Sixth.* The ammonia is added *after* the "iodizing," because, though ammonia is only sparingly soluble in a solution of nitrate of silver in water (hence the dense precipitate, oxide of silver), yet it is abundantly soluble in the solution if the latter contain nitrate of ammonium, *which it now does;* for you will remember, when we "iodized" with iodide of ammonium, I told you to bear well in mind that we formed *nitrates* of ammonium and cadmium, which nitrates were dissolved in the solution.

As the boiling progresses, we shall find that a great quantity of fine black matter, resembling sand, will be thrown down, and which deposits itself on the sides and bottom of the dish. This is, for the most part, organic matter (impurity) and oxide of silver.

When one-third or more is boiled away, suffer the solution to cool. When *perfectly cold*, it must be tested as to strength in silver. If less than thirty and more than twenty-five, it will answer. If more than thirty, reduce to this with water. Now filter it.

☞ No attempt must ever be made to filter the solution until it is *absolutely cold*, otherwise it will very likely not run through *perfectly* clear, but carry some impurity with it, and thus you will have lost your labor.

Next add nitric acid, chemically pure, little by little (shaking the solution after each addition), until it turns blue litmus-paper red.

Do not be afraid of the bath working slow on account of the acid: that's nonsense. Give it a liberal dose.

I should be very sorry to show disrespect to any one whose opinion differs from mine; nor do I intend to. I only wish to express my own very forcibly in regard to "sunning" the bath. That is all bosh! It can possibly do no harm and does some good; but half an hour's *boiling* is worth a year's "sunning."

Finally, add about one-third of an ounce of alcohol to every gallon bath solution. The bath-holder may now be filled and the solution allowed to remain at rest until next day.

☞ Now that you have your NEW bath made, *never* make another.

A collodion to work well in harmony with such a bath may be made as follows.

| | |
|---|---|
| Iodide of Ammonium, | 250 grains. |
| Iodide of Cadmium, | 250 " |
| Bromide of Cadmium, | 200 " |
| Bromide of Potassium, | 100 " |
| Cotton, | 400 " |
| Alcohol, | 40 ounces. |
| Ether, | 40 " |
| Tincture of Iodine, | — " |

PREPARATION OF THE COLLODION.

The potassium salt is to be pulverized in a glass mortar. It is well known that bromide of potassium is very sparingly soluble in alcohol, but if the potassium be reduced to powder and thoroughly incorporated with the iodide of cadmium, a *double salt* is produced by the addition of alcohol, when the entire mass may be dissolved without the aid of a single drop of water. When all the salts are dissolved in the alcohol, the solution must be filtered perfectly clear, after

which add the ether, a little at a time, shaking after each addition. At first a precipitation takes place, but, upon shaking thoroughly, this will be dissolved again. When all the ether is added, the solution may or may not be slightly milky; color to a deep orange, and filter. Finally, add the cotton, and use, when settled perfectly clear.

THE DEVELOPER,

to work in harmony with such a bath and collodion, may be made as follows:

| | |
|---|---|
| Water, . . . . . | 24 ounces. |
| Protosulphate of Iron, . . | 1 ounce. |
| Acetic Acid "No. 8," . . | ½ ounce. |
| Alcohol (accordingly). | |

Now, to return to the bath.

The plate should remain sufficiently long in the bath to produce a rich and creamy film. A failure to do so, under the circumstances as stated, can only be from three distinct causes:

1. Excessive cold.
2. Insufficient iodide in the bath.
3. Plate not left in the bath long enough.

Should the bath "fog" upon trying a plate, and the cause be in the *bath*, add five or ten drops of nitric acid, stir well, and try another plate. ☞ Should *any part* of the plate be clear, the fault is not in the bath, and there is acid enough.

The *bath* will never "streak" the plates if the latter are moved about in the solution as soon as dipped, and kept in motion until smoothly coated. This is necessary, more particularly when the bath is charged with ether and alcohol. The alcohol mixes with the solution, but the ether rises to the surface, and sometimes causes *scum*.

Should the "lighting" be correct, and the bath yield harsh or black and white plates, it can be from two causes:

1. Insufficient time of exposure.
2. Insufficient iodide in the bath.

Should the *latter* be the cause, coat the largest plate the bath can take on *both sides* with collodion, and leave it in the solution overnight, or at such times the bath is not in use.

RENOVATING THE BATH.

After using the bath at some length, you will notice the developer refuses to run smoothly, and is repelled by the collodion film. This is a sign that the bath is acquiring alcohol from the continual dipping of plates. If, however, the chemical effects are otherwise good, *add alcohol to the developer*, sufficient only to overcome this. If this happen a second and even a *third* time, and yet the *harmony* between the bath and collodion be perfect, better add again more alcohol than disturb this harmony.

☞ But when the bath contains so much alcohol that even an unusual allowance of alcohol to the developer cannot prevent streaks and stains during development, we must resort to boiling.

"Boil" the bath in the evaporating dish (*without neutralizing*) up to its normal strength (30 grains), and when *perfectly cold*, filter. If any trace of "fog" occur after boiling, add nitric acid sufficient to get a clean plate.

When the bath is so saturated with iodide that it yields *pinholes*, add to it an *un*iodized solution of the same strength as the reduced bath, and boil the whole to normal strength. I greatly prefer my bath on the verge of saturation, and NEVER, on that account, remove the iodide. [I *have* advocated this at times, it is true, but this was chiefly in relation to *small* baths, otherwise those dipping many plates would have to "boil" every day or two.]

FOGGING.

When, after long use, the bath "fogs," and filtering produces no good effect, and yet the bath is acid, it is charged with organic matter, and must be *neutralized*, and again boiled.

Place the bath in the dish, and add sufficient uniodized solution to make up the desired quantity,—*care being taken to reduce the strength of the solution to twenty grains.*

When the solution is hot, neutralize with ammonia, exactly as described for making a new bath. Boil to normal strength, when the same or more amount of black sandy matter will be thrown down. When *perfectly cold*, filter and then acidify.

This may be done *indefinitely*.

You need never take the iodide from the bath.

You need never make a new bath.

THE PRESIDENT: Is Mr. L. C. Mundy here? He has promised to read us a short paper on this subject. Mr. Thorp will read the paper presented by Mr. Mundy, in his absence, concerning the negative bath.

MR. THORP read as follows:

CONCERNING THE NEGATIVE BATH.

There has already been a great deal said on the subject of treating and working the negative bath; and how strange it seems that with the same materials, different people obtain such

various results. My method will perhaps not differ materially from other ways of working. Yet I fancy that I have been favored with great success in keeping my baths in order, perhaps owing to nothing more than good luck, but I lay it to my personal attention. When the same bath that I worked with perfect success, was left to the care of assistants, I would soon have numberless complaints that it was out of order, and would not work well. I have always found after a careful examination of the same that it was my assistants who did not work well, and this same bath that was condemned by them, I have worked three months, dipping from twenty to twenty-five plates per day, by simply filtering perhaps once or twice, and keeping the solution to the required strength. While visiting leading galleries in foreign countries, I remember several times asking those in charge, How long they worked their negative baths? One operator, to my astonishment, replied six months. He informed me that they were particular to keep it clean, and when it did give out, they laid it aside for waste. In working my negative bath, I obtain a sufficient quantity of distilled water to fill my bath, simply adding the nitrate of silver, and testing it till it comes to the strength required, filter it, try a plate or two, and I find it ready for use. I never iodize it, but sometimes find a sample of silver to which a few drops of nitric acid must be added. I keep in solution some nitrate of silver, from 80 to 100 grs. to the ounce, and when the bath has been used some days, I add to it what it requires to keep it of a uniform strength.

For the past two years I have boiled my bath but twice. I generally keep from two to three baths going; they contain about two or three gallons each. When I find it necessary to make a change in my bath, I test the strength; if I find it below 40° I add sufficient silver to bring it to that point, either crystals or strong solution; I then sun it, and after it has deposited its sediment, bring it in, filter, and cleanse the bottle, standing it in the sun again until it is wanted for use. I have found this method much better than boiling, and am not troubled with excess of ether or alcohol. Experience shows that the bath should be made stronger in winter than in summer, and that the dark-room should be quite warm and of a uniform temperature. The collodion and bath should always harmonize. I excite the former 8 grains to the ounce in proportion of 4 iodide to 1 bromide, and enough cotton to give an easy-flowing film, creamy when taken out of the bath.

I am very particular never to use a poor lot of collodion, and see that it is made of the choicest materials, and that is the point to which one of my friends attributes my little difficulty in keeping the bath in order. With the new method, with weak acid baths, and highly excited collodion, I have no experience, and it is a question whether there is any economy in it, considering the price of haloid salts. It probably takes as much silver to make the negative in the one case as in the other. If there is any lesson in my experience it is only that of extreme care and cleanliness.

THE PRESIDENT: I promised you this morning that Mr. Edwards, of England, would speak on this subject, but he desires to be excused, not being prepared. He promises to read a paper on development when that subject comes up.

Mr. Wilson has a short paper bearing on dark-room work, from Mr. S. P. Wells.

MR. WILSON: Mr. Wells being one of the helpmeets of our worthy President, I take great pleasure in offering you his remarks (in his absence), as follows:

## TO MANIPULATE WITH IRON.

BY S. P. WELLS.

When we consider the subject of development, we have so many different points to consider in order to fully understand the one fact, and there is so much to be said upon the subject, that I will mention only one or two important considerations.

Some operators consider a weak negative full of detail a proper negative for any printer, and expect crispness and relief, which qualities are not in the negative. Others consider that a negative of good strength with but little detail can be made to produce a proper print. How much more beautiful a picture can be made if the operator first develops a negative full. strong, and rich in detail, with delicate softness, which is sure to yield a print of the requisite qualities, namely, good, pure contrast, depth and breadth of shadow, with softness and delineation resplendent in the strong lights.

Now, as to the subject of development. In order to produce the results mentioned, we commence to develop the plate, supposing the collodion bath and exposure to be perfect. We want to produce a negative brilliant in contrast, transparent and solid. First, let us make a developer.

| | |
|---|---|
| Iron, . . . . . | 2 parts. |
| Epsom Salts, . . . . | 1 part. |
| Acetic Acid, . . . . | 1 part. |

Hydrometrical test—Iron, 15 grains.

This I consider the most perfect combination for a developer; as the astringent Epsom salts reduce softly. The iron, you all know full well. Then there must be the proper amount of acid in the iron to insure a slow and continued deposit. Of course, a continued deposit depends mainly upon the condition of the bath, which must not be too acid.

Again, in order to get the proper constitution in a bath, it must form slowly and digest what acid is applied for days, in order to insure a continued action in the development and positive transparency of shadow. Now commence again; with the full strength of iron, it forms a strong, rich deposit, but it requires tone and delineation, as does the picture of the artist painter after he has laid in the foundation of his picture with broad, rapid, and masterly handling.

Now, in order to get delicacy further in our picture, reduce the strength of iron on the plate by adding water, and an entire change takes place; the silver deposits finely over the entire exposure, softening the strong outlines in contrast, and giving a roundness and delicacy not possible with one strength of iron.

But the subject is inexhaustible. Let the positionist produce breadth and solidity in his drawing, and the manipulator consider depth and transparency, and we have the main qualities of a fine picture. Do not remain satisfied with a good picture, but seek elegance, and be happy.

THE PRESIDENT: The subject is now before you for discussion.

Mr. THORP: As there is no one to give this discussion a start, I just wish merely to make a remark in relation to Mr. Black's very able remarks on his bath. Perhaps it has not been well understood what the action of this acid is in the bath. Mr. Anderson says that the acid retains the organic matter in solution. I conceive that that is just the benefit of using the acid in the bath; that the organic matter in the bath can be retained in the solution; it cannot injure the plate; it is only when it comes in excess in the bath of what the acid can contain in solution, and it is deposited on the surface of the plate, that it works the mischief; therefore it is that when the bath begins to fail he adds more acid. The reason is very plain, that there has been so much organic matter incorporated into the bath by constant use, and that there is a greater proportion in the bath than the acid will retain in solution, therefore it is necessary to add more acid to retain it in solution. That is simply a point which has not been well understood, as to the action of the acid in the bath.

Mr. RICHARDS: I would like to ask just one question. I would like Mr. Black to tell us the method of cleansing the bath when it gets out of order.

Mr. BLACK: In the first place the bath rarely gets out of order, other things being in good order. When a bath has become exhausted, then is the time that it gets out of order. We rarely let a bath run down lower than eight grains to the ounce, consequently it does not get out of order at all.

A MEMBER: How do you test it?

Mr BLACK: In the usual way by the hydrometer. Generally the silver is less than the hydrometer indicates, owing to the acid in it. When the bath goes down very low, we take the bath out and put in a new one, without doing anything but adding enough silver to bring that old bath up to twenty grains, adding acid in proportion, and adding the old bath, or part of the old bath; we save that for redeveloping, so the bath that we take out is generally not lost but used for redeveloping until that bath becomes exhausted again, and that is done over and over. I do not use filtered water for my bath; I take the common Cochituate water from the pipes without any preparation whatever. That water is comparatively pure; there is some organic matter and some traces of iron in the water, and free nitric acid must be used very weak. It has a very strong affinity for organic matter, and there must be a vast amount of it in my bath to enable me to put so much nitric acid in if that is the only chemical effect it has. I have not tried it, but would be willing to take distilled water, which does not contain any trace of organic matter in any way whatever, and still use the same amount of acid with the same effect. I have used that so long that I feel confident that that is not the real reason of the taking up of the organic matter which makes the use of so much acid possible.

A MEMBER: Are you obliged to redevelop your plates?

Mr. BLACK: Occasionally; generally use

them so that they will require a trace of redeveloping. We generally work our plates so that they will require little redeveloping; in many subjects it would be just right, but it is very bad to be overdone; it is better generally to let it be a little flat, and I can redevelop and get along with a higher light and those that are in the shade are redeveloped, the upper part of the face or the lower part of the face, with careful management. I have made a great deal of modelling in large pictures by my skill in redeveloping thus; I have redeveloped parts of the face more than others.

MR. WEBSTER: We have a first-rate subject here on the stand. I wish to ask him a question. He has used the term "redeveloping." Will Mr. Black please explain what he means by redeveloping, and how you redevelop one part more than another? The question is now redeveloping.

MR. BLACK: I use it as a common term that is in common use. It may not be a proper term to use, and I perhaps have misused it.

MR. WEBSTER: I wanted to get an explanation of the redeveloping; I want to get out his idea and his method of redeveloping. I take this ground about it, that redeveloping is a repetition of the first developing; it cannot be anything else. The next thing is strengthening. The question now is, does he strengthen or does he redevelop? that is the point.

MR. BLACK: After my plate has had the first development, which is allowed to continue as long as any action takes place, I then sometimes wash it, and sometimes I do not; I then take a little of the developer which I have been using, of the iron solution, for instance, in the same vessel, take a little of that and pour it out in a small stream, after I add a little weak solution of silver perhaps. This old bath contains eight grains to the ounce, and we further weaken it down to three grains to the ounce, and put more or less than that in as experience teaches you. Suppose that this negative has a large head, and suppose that it is flat, and I do not develop much, and I want to bring a high-light on the forehead. I take this weak developer, which acts slow, and pour a thin stream on the spot, and it gradually redevelops. I have done very much of this work. When you let it strike you will see that at that point it will redevelop more rapidly. Sometimes you take a picture of a person with very hollow cheeks; it is the custom with many to put them in a side-light, and throw the light up on the cheeks, and the lower part of the face, and in the hollow parts where the lights are stronger than down here.

THE PRESIDENT: Unless they stood on their heads.

MR. BLACK: Sometimes it is advisable, and you want to obviate the high cheek-bones. You should make the picture a little flat, and then you can bring out a little stronger light without injuring the rest of the picture; it is quite usual to do this, and without injury. That is what I call redeveloping; it is using the same developer the second time.

A MEMBER: How strong?

MR. BLACK: Very weak. Use an ounce or two ounces of the iron solution, a tablespoonful of the silver solution, two or three grains to the ounce. If I want to bring up a vigorous action I make the silver solution stronger, and use more of it.

A MEMBER: I would like to ask one question as to the plan of his redevelopment, that when he redevelops with his old bath if there is plenty of acid in it. I would like to ask if he can redevelop as fast and as often with acid in that redeveloper as he could by mixing up plain silver and water, have it neutral, and then redevelop with silver, neutralizing it by adding it with the other?

MR. BLACK: That is an experiment I never tried comparatively; that is, I never tried both ways with the two different solutions. I never had any trouble in using the acid solution in redeveloping, so I thought some of you would like to have it. It is very possible you may be right that pure plain neutral silver would do better, but, I should think it would be very likely to precipitate quicker.

Now, this weak silver I take from the bath will hold up quite long enough to do any developing you wish; but sometimes you have copies which are very flat, and it

is the redeveloping which makes them worth anything at all. You redevelop several times until you bring them up.

And as many an old daguerreotype—we used to take them years ago, when we thought them the highest excellence of art, was to get both sides as white as a piece of paper—is brought to be copied, when I come to redevelop I can bring out the shading, which was scarcely visible in the daguerreotype itself. That question of silver in redeveloping never occurred to me, whether it was better or not to use it as you suggest.

MR. CHAMBERLIN: I have tried both, and like the plain silver best.

MR. BLACK: I think I shall try it on my return, and am glad for the suggestion.

MR. CHAMBERLIN: There is no novelty in it. Take plain silver and water.

MR. HESLER: In regard to developing, and redeveloping, and strengthening, I have used iron both before and after, and have had various and beautiful results; these can be obtained in the negative if the negative is full of detail, and only wants a little strengthening, and you want a fine deposit. I have found that pyrogallic acid or using the silver with acetic acid, will give you any amount of strength you may want, and in any part of the negative, by taking care of the direction in which it strikes on the negative. If the negative lacks detail you can bring it up by developing with the pyrogallic acid before, with less liability of staining, any amount you choose.

MR. B. J. EDWARDS, of London, England: I can indorse Mr. Hesler's experience as to the value of pyrogallic acid for redeveloping. I have tried iron for redeveloping, and have never found the results so good as when I used pyrogallic acid. I used it in the usual way before or after fixing. I think not the least part of its value is that it gives such a beauty to the non-actinic color. I think the former may with the pyrogallic acid redeveloper often do a great deal too much. You can use acetic acid if you choose, and if you take a little acetic acid and a small portion of citric acid, you will get a much better print than in using the iron. The formula is one-half grain of pyrogallic acid and one ounce of water, one-half grain of citric acid to the ounce, and about twenty or thirty drops of glacial acetic acid, which would be equivalent to half an ounce of acetic acid.

There is another point that may be new, and that is, that the picture should be well made, and in the next place that in taking the pictures of children it often happens that you get the lights before you get the shadows out. You cannot go on developing, because you make the picture too dense. If you stop and expose it to a strong pyrogallic acid redeveloper twenty grains to the ounce, you can work up the details without making the shadows too intense.

I think that little hint is new to most of you, and if you try it I think you will be pleased with its results.

MR. CARBUTT: Mr. President, a letter was handed to the Committee on the Holmes and Scovill Medals too late to be acted upon, in which is given a new method of pneumatic development. It would be proper to read it now. The idea bears closely with the remarks of Mr. Black on redevelopment, pouring on the plate the developer, and thereby its action being quickened. It is the invention of Mr. Ernst Krüger, of N. Y.

By this method the details are developed quicker and with more clearness, and designs produced whereby lights and shades are brought out. This method consists in the following operation:

Take a small india-rubber ball, with tube attached to it, and direct a current of air onto the deep shadows. By this operation the collodion film becomes more sensitive, and the development goes on quicker, whereby greater precision and distinctness is given to the details.

THE PRESIDENT: If there is no disposition to discuss the matter of baths any further, we will pass on to something else.

MR. THORP: Not wishing to consume the time of the Convention, I merely wish to make an explanation of a remark I made before.

Mr. Black claims that in my remarks made in regard to the action of the acid in the bath, I say that the action of the acid in the bath is not rendered necessary by the

presence of organic matter unless the organic matter becomes in excess of what the silver will hold itself, in solution; then indeed when it has become in excess of that, the addition of more acid becomes necessary. That is the reason why a bath that has once failed can be restored to working order by the addition of acid. I suppose that Mr. Black is working with perfectly pure fused nitrate of silver and pure water, and a good negative may be made from a solution down as low as eighteen grains, and I have done it myself from a perfectly pure and as near neutral solution as I could get it of fused nitrate of silver and ordinary collodion. The benefit arising from the use of the acid is that such a bath as that, after the taking of one, or two, or three plates, will show signs of failure because it is too weak. If working with acid, then the addition of acid clears it up, and puts it in good working order. It is practically the benefit we derive from the use of Mr. Black's formula.

THE PRESIDENT: I would give notice that we have an address by Mr. I. B. Webster, who will presently deliver it. Mr. J. W. Black, for his stereopticon exhibition, has secured St. James Hall for Friday evening. All members will be admitted on showing their badges or tickets.

This evening, at half-past eight o'clock, Mr. Pearsall will give his lecture, the subject being "A New Train of Thought."

Mr. Wilson adds that the lecture is very interesting and very beautiful.

We will now hear Mr. Webster's address.

MR. WEBSTER: I feel rather reluctant to take that position to-day. I had not expected to take it until to-morrow, and there having been a hitch somewhere they have put me into the breach, and I will do my duty this time as well as at any other. What I propose to say to you is simply practical. I do not propose to give you any new ideas, I do not propose to advance to you any new theory, but a few hints on straight-out and practical work, such as I have been in the habit of doing for the past twenty-seven years. With these preliminaries I will commence, as soon as I can be heard, premising by saying that those who do not wish to hear can read what I say, I presume, in the proceedings of the Convention.

You remember that I read a paper in St. Louis on photographic manipulation; this is a continuation of that paper. I did not know that I could hit upon a subject that would be more beneficial to photographers than this one—(Retouching). That is placed in parenthesis. Why it is called retouching I am not prepared to say. I have always supposed that retouching was a repetition of what was done before. It has been called retouching. I will not quarrel with the term.

Mr. Webster now addressed the Association as follows, on

## MANIPULATIONS CONTINUED.

MR. PRESIDENT, LADIES AND GENTLEMEN: Photography is so pregnant with themes for a paper that I am at a great loss in selecting one for this occasion. I believe, however, that practical papers and discussions upon the practical workings of photography should occupy the most of our attention, "when in convention assembled." I have therefore chosen for my present theme

### MANIPULATIONS CONTINUED.

We are now supposed to have a rack full of negatives ready for varnishing, and we proceed to perform this part of the work, remembering that every part of the business requires care, this as well as all others.

In warm weather no artificial heat is required. It is only necessary to place the negative in the sun, *away from the draft*, and it is soon warm enough. But in cold weather artificial heat is a necessity. Do not overheat, as many good negatives are broken in cooling, or spoilt by the varnish being applied while the plate is too warm. Only a little warmth is required, say, to the touch, it feels warm only. Now flow the varnish as you would collodion, and drain thoroughly the surplus back into the bottle. When it stops dripping, then warm again gently, as in the first instance, and you will find the work well done. There are two extremes to be avoided. If a steam arises upon the application of the varnish, you may be assured that the plate was too warm, in which case your chances for a good, durable printing negative are slim, besides the danger of its breaking in cooling off.

On the other hand, if it is too cold, when the varnish is applied, there is a strong probability of its chilling, which will necessitate revarnishing, which is sure to make the varnish too thick,

rendering the negative unstable. "Haste makes waste," is an old axiom, but trite, and applies to photography throughout.

When we have our negatives nicely varnished, we take them to the retouching frame. Ah, my brothers, with awe I approach it! Wise men have said that this is an innovation; that it belongs not to photography; that we have no business with it, as it takes from the chemical production. Others, perhaps not so wise, advocate it with considerable force. In the face of such conflicting sentiments, advocated with such learned and convincing arguments, I repeat that I take my negatives to the retouching frame with awe. However, I take them there, *believing that I can improve the general appearance* of the print, *without interfering in any way with the individual anatomy*. It has been said, *and truly so*, that this work has been greatly overdone. I have, within the last three years, seen many "eggshell" representations of the human face, that while a general likeness still remained, *individual anatomy* was nearly, if not completely, lost. Is this the kind of likeness that our friends would delight in when our faces are seen no more among men? I answer, No. Then how about others, whose darlings have been sent to us for a "true delineation" of what to them is so dear? Let us work conscientiously, and there is no fear. Let us apply the "golden rule" in every case. Retouching (though why it is so called I cannot state) is of great advantage to our business when properly done. I remember that a discussion was had at St. Louis on this subject, when nearly all agreed that it was, as a rule, overdone. The most amusing part of it all, was the fact of calling upon some one to explain "how he would proceed to touch up the face of our Mr. Clemons?" I remarked at the time that they were then at work upon a *positive*, when the subject then under discussion was the *retouching of negatives*.

There are many negatives taken that require very little, if any, retouching. The retouching frame, however, is the best place to determine that, and consequently I take my negatives there for examination. There are three points that can be made here upon this subject: 1st. Are there skin blotches, that would make the print unpleasant, if left as they appear upon the negative? If there are, remove or soften them. 2d. Has some unfortunate circumstance produced more or less holes in it? If so, stop them up. 3d. Were you unfortunate enough to get too strong a contrast between the lights and shades? If so, blend them. These are the three principal points to be considered, although there is another, of perhaps as vital a character as any of them. I need not ask you whether you have or not, heard a very common objection to the photograph, expressed in no very gentle terms, for I feel assured that you have. I will therefore repeat it as near as I can.

The lady comes in, and inquires about every other style of picture, such as the porcelain, oil, water, pastel, or other surface-finished work, and when all have been shown she is horrified at the cost. "Oh, I do not want such high-priced work, I want something cheap." "Well, madame, how do you like this?" showing a ferrotype. "Oh, no, that is too common; my servants get that kind." I then say, "I suspect that you want the plain photograph," and I am met with the oft-repeated assertion: "I do not like photographs, *because they are so coarse.*" Oh, you skeptics! let me inform you that the retouching board has done much towards wiping out that objection. By carefully using the pencil, the pores of the skin are refined, and the coarseness, heretofore complained of, has nearly disappeared, and that, too, without disturbing the anatomy. It is folly to undertake to improve that, and it is equal folly to depend upon the pencil for your high-lights. These should be made under your skylight (or side-light, as the case may be), and nowhere else. Let the camera, chemicals, and light do all of that work. But I am too fast here. Retouching is now the point. There are a score of methods, and only one can be successfully adopted by the same person. I will proceed to explain mine as near as I can.

I have at hand a cake of water-color, called neutral tint. Upon a piece of china (porcelain) plate, drop about two drops of clean water. Now take the cake between the thumb and finger, and rub one end of said cake a very short time in those drops of water, and a sufficient quantity of the color will be deposited upon the white plate to last a long time. Do not attempt to use it until the water has dried out of it, which consumes very little time. Now provide yourself with a two-ounce wide-mouth bottle; half fill it with water, and set it upon the table near the white plate with color on it. You will also need two camel's-hair pencils, with long handles, and a pot of Gihon's Opaque. Let's see now; is there anything else needed? Yes, you need a painter's rest-stick. To do this well, your hand must be perfectly steady, and at the same time flexible. You must have a stick of some sort, and this is the best. Well, how about the retouching stand? I never had but one kind, and

as I am incompetent to give a clear description of it, I have made a negative of it in position, which I purpose handing to Mr. Wilson with this paper, and if he will have it engraved you can see the utter folly of purchasing so useless an article as any retouching stand now in the market that has come under my observation.

With the articles that I have mentioned first-class touching can be done by care and patient practice. One great advantage of the water color over the pencil is the facility with which the work can be undone if not satisfactory in the first, second, or even the tenth effort. In some cases the pencil is good, especially if there is very little to be done. Even when using the pencil, do not use any modern means recommended to roughen up the surface of it to what is termed tooth. All this can be effectually overcome by first whittling the pencil down to a long, slender point, and finishing by means of sand-paper. Whenever the pencil fails to deposit on the negative as required, pass it over the sand-paper a time or two, and it goes off all right again. Rather a hard pencil does better in my hands than a soft one. This, however, depends somewhat upon use. The practice, however, of disturbing the varnish by the use of pumice-stone, fish-bone, emery, &c., to secure tooth, is too dangerous to be successful. I would therefore advise you not to practice it.

When the skin blotches are too deep to remove with the pencil, then the neutral-tint and brush come in first-rate.

There is not a practical man, whose bread and butter depends upon his trade (and that is the class to whom I am speaking), that can at all times, and under all circumstances, produce a perfect negative. "Ah, but," says Mr. B., "when I cannot do that, I propose to do nothing." All right, Mr. B., you may be in a financial condition to enable you to take that position; but as for me, I must "get the loaf when I can," and in order to do this I make the best negative I possibly can under the circumstances, and with my knowledge of the uses of various "methods for improving," I produce as good work as you, when you are only willing to make a negative when it can be perfectly done. I am no advocate of poor work; I only take this position in necessary instances, and am willing to do all I can to teach the art of "overcoming difficulties," some of which consist in the vain effort to make a first-class negative under all circumstances

Retouching helps much at times, as does re-developing, strengthening, &c. They are all useful at the proper time, but should be used only when absolutely necessary. There is, however, a stern necessity for the practical man knowing how and when to use them. *He cannot get along without this knowledge.*

When the negatives are ready for printing (which means that they have passed through the retoucher's hands), take them to the printing-room, and enter each name, size of negative, size, style, and number of prints wanted from each, in a book, with the day and date plainly marked, leaving space for tallying each print as it is taken from the press.

This book in some cases is worth much as a "book of reference," when a party doubts your having made for them as ordered. The preparation of the paper is so closely connected with this operation that I scarcely know where to introduce it, but thinking this as good a point as any, I will take it up here. It is not my intention to give a set formula for chemical preparations—manipulations being my theme. I therefore confine myself to the handling only. I have, on two occasions, heard Mr. Clemons explain his method for sensitizing paper, and while I cannot describe it in a creditable manner, I may perhaps be allowed to refer you to him and his ways, and say that there is one point which I do remember, and it is a point of great importance. It is this: in floating paper, we, as a rule, bring one end of the paper in contact with the silver solution first. Now, after carefully removing all air-bubbles, and allowing the paper to float as long as we deem necessary, we first lift the end of the sheet from it that was the first to come in contact with it. This gives a uniform coating, and assures us that some parts of the paper will not be more brilliant than others, and assures us that our prints next day will be uniform in strength and brilliancy. If one is good, all will be good, and *vice versa*,

provided always that care was used in the printing. Do not rush the paper off of the solution, but raise slowly and evenly, which allows the silver to run off the paper while raising it, so that when it is completely off, there will be only a dropping from it. Now hang the sheet with one corner lower than the other, under which place the silver bottle, in the neck of which is the funnel with filter. While preparing another sheet of paper this will have dripped as much as it can, and is now ready to be moved to another place to dry, leaving room for the next sheet. In this way very little silver is lost or wasted, and not only is this the result, but the paper is in better condition, from the fact of its having been through a certain routine, which results in making it more general in results. The surface of albumenized paper should never come in contact with any hard substance while damp, as it is certain to interrupt the evenness of the surface, and present in the print an unevenness that attracts attention.

When the paper is surface-dry, pin it at each corner, allowing something for shrinkage, to prevent the pins from tearing out, as you will find a great waste resulting therefrom otherwise. In Elbert Anderson's book you will find a cut representing an arrangement of clothes-clips worthy of notice in this connection. This arrangement prevents the paper from curling or twisting out of shape, which is of great advantage to the printer. If the paper drys under a strain, it is much easier to manage in printing than if allowed to dry free from it, as it is sure to curl and twist, in which case there is great difficulty, especially in large prints, to bring it in close contact with the negative.

When the paper is thoroughly dry, it is ready for the fuming-box. This, of course, is a fixed habit, which I do not propose to enlarge upon, but I wish to say here that the more tension you bring upon it (the paper) while it is in the fuming-box, the less trouble you have in making close contact with the negative and in trimming (if large in size) afterwards. As for me, I trim my card size before printing, and, by being particular in locating the paper, I have no further trouble. Imperial, 4-4, 8 x 10, 10 x 12, 11 x 14, and 14 x 17 sizes I trim after printing and before toning, which gives me the benefit of mounting while wet. The object of this is to require the albumen surface to dry but twice, viz., after silvering and before printing, and after washing and mounting. I assure you that every time albumen paper dries, its brilliancy is decreased.

Now in regard to printing. I would be glad, yea, rejoiced, if I could make you realize its importance. I am prepared to say that a good photograph printer is of more value to a photographic establishment than an average negative maker. The former can, from an average negative, make first-class photographs, while perhaps the latter cannot produce first-class negatives; for be it remembered, that all sittings are made under the then existing circumstances, which cannot always be of the best. To enumerate would take too much time, and I return to the printer, to whom I wish to give a few general instructions. Fifty-two cartes can be made from one sheet of photograph paper, and in some instances fifty-four. This is an item, not on account of first cost, but in consideration of time and trouble in preparing. By strict attention every particle of prepared paper can be used in the print. Be sure that the back of the negative is clean, and that the contact is perfect before the negative is exposed to the light. When you wish to examine the print, go slow and sure. Do not allow the negative or paper to slip from their position, as that is sure to spoil the print, and result sometimes in spoiling the negative. Over- or under-printing is equally bad. The first results in an unpleasant heaviness, while the latter loses individuality. Watch the bleaching effects of the toning-bath, and fixing solution, and print to it. Anticipate the tone before you reach it, and print to conform to it.

A photograph printer is worth his price just in proportion as he uses care in his work. The printer must be held responsible for his silvering, printing, and toning, with no redress. He cannot lay the fault upon the negative-maker, nor upon the toner. If he understands his business he is invaluable. If he does not understand it, he had better turn his attention to something else, for I boldly assert that the photograph printer is the most important man in a gallery. My practice may not conform to your preconceived notions of washing prints, and I will not take your time upon that point. In regard to mounting, I will, however, suggest that all prints be removed from the water, and mounted while wet. For cartes I use Slee's prepared mounts, and only regret that I have not been able to get the larger sizes, as I am free to say that I consider them among the greatest improvements in the practice of photography.

Instead of pressing the prints down with a piece of paper coming in contact with the albumen surface, I apply the paste to the back, lay it upon the mount, and "lick it down" with the tongue, thus securing perfect adhesion, and removing the surplus dampness from the surface at the same time. Now spring the mount towards

the back a little, and when it is dry, you will have very little curl or cockling in it.

And now, my "confrères," as this paper is long, I propose to close here, remarking, by way of parenthesis, that I thank you for your attention, and hope you will forgive me for consuming much of your valuable time in the reading of a paper replete with what many of you "knew long ago." I could carry you along to the finale of the whole proceeding, but deem it better to retire at this time, and give way to what may prove of more importance to the N. P. A. as a body.

I would like to say, in conclusion, all you who are not subscribers to the *Philadelphia Photographer* should become so, *just as soon as you have time to write the letter.* (Applause.)

THE PRESIDENT: Mr. Wilson will have to make a speech now. (Applause.)

Mr. Wilson got up and applauded Mr. Webster in lieu of a speech. (Laughter.)

Mr. Webster was then cross-questioned considerably, and answered as follows:

. . . The work will be benefited with the use of the pencil; if the work has been overdone, which is very often the case, it can be corrected by the free use of the pencil; if a deposit has been made from the pencil, then there is scarcely any remedy for it; it is very difficult to take it away; but if you use the neutral tint, with camel's-hair brush, if you have done it too much, you can just put it under the tap and wash it off, and start again; and you can do it fifty times a day if you want. This is the best way, especially if there is very little to be done. Practical men can get along without this knowledge, hence I have taken the pains to give you the points which I know will help you along under these difficult circumstances.

I want to repeat that again. Photographers ought to think about it. That when the albumen surface is wet it is liable to be injured by coming in contact with anything, no matter what it is, and I want you to read that part again, when published.

The surface of the albumenized paper should never come in contact with any hard surface while damp.

MR. CHUTE: How about drawing it across a glass rod, as has been recommended by many?

MR. WEBSTER: That is something I am positively against.

MR. CHUTE: It has been strongly recommended by some.

MR. WEBSTER: Mr. Chute reminds me it has been recommended to draw the paper across a glass rod to remove the silver from the surface of it. I take a positive stand against it. That is why I put this here, and why I stated it here.

MR. PEARSALL: I would like to ask a question.

(The reporter did not hear this gentleman's remark.)

MR. WEBSTER: Mr. Pearsall calls my attention to this fact which is in my paper, which I stated positively. When you raise the paper from the silver solution you must raise it slowly. That is what I recommend in this very paper.

For card size pictures I always trim the paper to a proper size, and give it the proper position on the negative.

A MEMBER: Before printing?

MR. WEBSTER: Before printing, and then locate it properly for printing.

THE PRESIDENT: Did I understand you to say that you cut the pictures card size?

MR. WEBSTER: Yes, sir; card size. By the way, ladies and gentlemen, there is one point I wish to interpolate here. I want to call your especial attention to it. There is a term applied to a certain sized picture. Some call them cabinets, some card cabinets, some cabinet cards.

I think it is the duty of the National Photographic Association to give the proper term to that size picture. Do you know the size picture I have reference to? Some call them card cabinets and cabinet cards. It is really the imperial card, and no photographer should ever acknowledge any other term.

A party comes in, and says, "I want a cabinet picture. What will you charge?" I say, "I will make you one for fifteen dollars." "What! *Fifteen dollars?*" "Yes; that is my price." "What do you mean?" "I simply mean the cabinet picture. I will charge you fifteen dollars for it." "Mr. So-and-so makes them for seven dollars a dozen." "Oh, I know now what you mean; card cabinets or cabinet cards. I did

not know what you meant." "I mean card cabinets." "Now let us look through the room, and you show me the size." It is the imperial picture simply. "Well, I will give you a dozen of these pictures for eight dollars. That is the lowest price, and if you want only half a dozen, I shall charge you five dollars."

The carte is one, the Victoria comes next, the imperial comes next; and those men who manufacture the mounts for the fraternity are doing us an injury. They are hurting us when they put on the ends of their boxes, "Cabinet Card Mounts." A party comes to me and says, "I want a carte," and another says, "I want a Victoria." All right; I know exactly the size. Next comes a man who wants an imperial or a cabinet. I don't know whether he wants an imperial or a cabinet.

Now I think the National Photographic Association should spread this reform and give this size its proper name, and don't let us be confused by the people. We are the educators of the people in pictures, then let us educate them in the terms of the size as well as in the pictures.

A MEMBER: Why not call it cabinet as well as imperial?

MR. WEBSTER: I will tell you why. First you have your carte, the Victoria is the second size, the imperial comes next. We all know what the 4-4 picture is; then follows the 8 by 10 negative, and the 10 by 12, and 11 by 14; then comes your cabinet. That is the reason. That is my objection. It is the confounding it with a larger size known as "Cabinet."

A MEMBER: I would ask brother Webster what the size would be called that is 20 by 30, or 30 by 35?

MR. WEBSTER: I answer, that artists all the world over have acknowledged that a cabinet picture is anything less than the carte size. There is one now (indicating), the Washington picture, on this wall; anything less than that. If you do not observe these distinctions, it confounds the people in their ideas of sizes.

When they come to me and say, "Mr. Jones will make half a dozen for five dollars"—I want fifteen for one of them—what is the consequence of it? They don't patronize such a man who has such exorbitant charges, consequently I have here in my paper corrected this thing.

A MEMBER: How do you distinguish your sizes from 11 x 14 as to the picture?

MR. WEBSTER: Cabinet, everything up to life-size. Life-sized pictures would be cabinet.

A MEMBER: It would be rather indefinite for a customer to ask what you charge for a cabinet size.

MR. WEBSTER: Not at all; it could not be possible; you would understand one thing. There is one thing you certainly would understand, and that is, that he don't mean an imperial picture; he means something above a 11 by 14.

A MEMBER: Would you make him a 16 by 20 at the same price?

MR. WEBSTER: I did not say price; I am not talking about the price; I am talking about the size.

MR. SAYLOR: May I ask one question? How many carte pictures do you cut out of a whole sheet?

MR. WEBSTER: I have not done my paper. You will see something directly.

A MEMBER: When you take it out after printing can't you dry it?

MR. WEBSTER: I remarked that you would injure the albumen surface in cutting and handling; by putting it in a frame you must certainly disturb it.

A MEMBER: In printing and cutting you must handle it.

MR. WEBSTER: I said the handling while wet. That is what I said, pointedly and distinctly.

Now, with regard to the printing. I think there is something in this address that will interest you. I would be glad if I could make you realize its importance. . . . Some of you do, but there are some who do not. I am prepared to say that a good photographic printer is of more value to a photographic establishment than an average negative printer. I take that positive ground too. The former man from average negatives will make first-class pictures. I say average negatives; understand that. I do not say the poor ones; recollect, we grade them, good, better, best; and the average comes in there.

MR. CHUTE: What is a negative-maker?

MR. WEBSTER: I will not tell you; you may learn.

A MEMBER: I move you that these constant interruptions be discontinued and that Mr. Webster be allowed to continue with his paper.

THE PRESIDENT: It is not necessary to put the motion. Needless questions must not be asked.

MR. WEBSTER: It is not necessary to have any motions. I can tell him what a negative-maker is without any trouble, but we will pass on.

MR. CHUTE: I proposed that question, and would say, in explanation, that I wanted to know whether Mr. Webster meant the individual who makes the sittings or the one who operates the chemicals.

MR. WEBSTER: If you divide it in that way, Mr. Chute, it may be a little more difficult to answer, from the very fact that I have no doubt that nine-tenths of the members of the N. P. A. do it all. They do the work, not only in the dark-room, but in the light-room. Some of them do the printing. So it is a very difficult thing to answer in that respect.

I take this position about it: If I give a man a piece of rolled glass, that has never been touched, except to manufacture it, to import it, and say to him, here, I want a negative; and he takes that piece of glass and gives me a negative that will make a good photographic print, I will say to you, gentlemen, that he is worth more than the man that can do nothing but print a piece of paper—I mean that can do anything but go in a dark-room and coat a plate—I say he is a photographer far above a man who never goes outside the dark-room; far superior to the man who does all his work in the light-room, and who never goes in the dark-room. I say he is far superior to the man in the dark-room, to the man in the light-room, or to the man in the printing-room—far, far superior—and he is entitled to a thousand per cent. more credit for it, and he is on the road to practical photography; more so than the man who retouches or prints. I say the printer who can, from an average negative, make a first-class photograph, while perhaps the latter, the negative-maker, can make a first-class negative—for a first-class negative is always made under different circumstances—you cannot always say which will be the best; to enumerate would take too much time. I return to the printer, about whom I wish to give a few general instructions. . . . . I boldly assert the photographic printer is the most important man in a photograph gallery. While we think, perhaps, we can hire boys for from five to seven or eight dollars a week to do our printing, we are grandly mistaken. I would rather have a boy in my operating-room to do the work than to have a boy in my printing-room. I can take a man, and put him in there, and in six months' time his negatives will produce better work, provided he is experienced, than can be produced the other way. Hence I boldly assert the photographic printer is the most important man in the gallery. . . .

I hold that the less you disturb the albumen surface while wet the better your print will be.

Instead of pressing the board down with a piece of board, and it coming in contact with the albumen surface, I place the face to the back—that is, when the mount is not large. If I had larger mounts, I would use them.

Now I say apply the paper to the back and lick it down with the tongue—that is, if the tongue is clean.

There is a point in that—that is, you thus secure the perfect adhesion and remove the surplus dampness from the surface at the same time. You make two points by that operation. Now spring the mount backwards a little.

Your mount is supposed to be flat. The picture lays on the back of it. After you have gone through the licking process, you will make them stick; in two or three lessons you will learn; you do not know how much licking does. There is the point, in not disturbing the albumen surface while wet. Do you disturb it with the tongue? I guess not. Certainly the tongue is a great deal better than a piece of paper. After you have accomplished it, you spring that back in this way and spring it in that way, and hold it just an instant. Then lay it on a clean piece of paper in that direction;

when it dries it will dry pretty near flat, and you will have very little cockling.

Remember, spring the mount.

Now, my friends, as this address is long, I propose to close here, only remarking, by way of parenthesis, that I thank you for your attention, and hope you will forgive me for consuming so much of your valuable time on a subject about which you knew everything long, long ago.

I could carry you along to the finale of the whole proceeding, but it may be better to give way to what may be of more importance.

A MEMBER: Does not your albumen stick down that way sometimes, and are you not troubled with it that way?

MR. WEBSTER: There is one question which has been asked me here that I will answer. The question has come up whether or not, as I lay the albumen surface down here to dry, I was not disturbing the surface while wet. The tongue is a great absorber. I made this point in regard to it. I noticed one thing, that I have absorbed a good deal of time with mine. I think I prefer it in that way. (Applause.) As the tongue passes over it in that way, it takes off all the surplus water that is on the paper; then, in licking it down, there is hardly anything to come in contact with, at the same time it does its work.

MR. BINGHAM: I wish to ask brother Webster if he doesn't think that licking with the tongue would not be rendered valueless by the different conditions of the mouth, whatever it may be—acid, alkaline, or what not? Do you not think that has some effect upon the albumen surface? Now, I have a little point here—the gentleman is present who learned me—as to the mounting of cards, although he is not very old in it. He takes a very clean towel, three or four thicknesses thick, lays the wet photograph on the mount, turns it over upon the block, rubs it off very clean. You have no water on it and no saliva on it, and you have not disturbed the surface of the albumen.

MR. WEBSTER: I want to say a word or two as to the question raised by the ladies. I want you to understand when the ladies raise a point, they have looked at all sides of the question. I am very careful about what I have experienced. I understand one of the ladies wants to know something about the chewing of tobacco in connection with the licking down of the print.

I simply want to make this explanation about it. I chew tobacco, but I do not lick down my prints. I want to say I employ young people to do it, their tongues are fresh and smooth, and they can do it right.

THE SECRETARY: The members of the Experimental Committee are expected to meet at Mr. Baker's rooms with Mr. Bingham at half-past one o'clock to-morrow. I would be very glad, if there are any of them here, if they will remember it.

A MEMBER: I wanted to ask the gentleman one question as to the trimming of the paper before printing and handling the albumen surface. Does the trimming of the paper comprise the entire cutting of the paper.

MR. WEBSTER: The paper is folded and we only touch the back of it. Fold it, recollect, when the surface is dry. I am afraid there is one point you are losing sight of; that you should not disturb it while wet. We do not propose to trim it while wet.

MR. WILSON: Mr. N. D. Randall, of Oneida, N. Y., has handed me a few useful hints, which I think will come in good here. They are as follows:

## A FEW IDEAS.

MR. PRESIDENT, AND LADIES AND GENTLEMEN OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION: I have no new processes to disclose, no new theories of lighting, posing or manipulation, as it is but two years since I concluded to *turn photographer*, so I cannot assume to *teach* any of you. I merely have a few wrinkles, in daily use in my own gallery, which some of you might wish to copy. Many of you have tally-boards of different kinds to show how many you have printed from each particular negative. I think I have a better plan. In each of my printing-frames I have let in to the wood a piece of ground-glass, with white paper backing, and have hanging by a string where I take off my prints a lead-pencil. Now Mr. John Jones wants a dozen (say) prints from this negative. As I take off each I mark 1 on the ground-glass in the frame with the pencil hanging ready, so I can tell the number printed at any time without the handling and exposure to light, necessarily made by counting the prints.

Next, as to vignettes, many of us use *tacks* to fasten our boards to the frames, thus very soon spoiling them. *I* had a number of springs made from the thick brass used for springs in our printing-frames, and, after arranging my vignetting board, card or what not, simply fasten it with these, which are made in this shape ⊃. They are very simple, convenient, and easily managed. Now another thing. You often have paper which, from bad management in flowing, shows red discolorations. I utilize nearly all of such in this way. Varnish a glass, drain, and then, when nearly dry, take into full light and sprinkle carefully with sand, to form a regular surface. I put clean white sand, after thoroughly drying it, into a bottle, over the mouth of which I tie a piece of gauze or tarletan, to sift through. Use this instead of plain glass for printing the outsides of your medallions. It gives a very pretty marbled effect, in which the red spots are not noticed, thus utilizing many pieces of paper which would otherwise be lost. Another thing which *may* be new, and therefore valuable to *some* of you, is, how to draw off your bath. Get a piece of rubber tubing, say four feet long, put one end in the bath and drop until all is covered except just your finger hold; pinch lightly, pull out, and insert in the mouth of a bottle. When that is full, pinch together until you direct into another bottle. In this way, simply by having the tubing reach the bottom of the bath, and discharging outside at an inch or two lower, you can draw off your whole bath without much trouble and with no waste. Thanking you for your attention, I herewith close.

The Secretary: Mr. Edwards, of England, who spoke to us this afternoon, is the proprietor of the Edwards enlarging process. A number have bought that process. Since he is in this country personally he proposes to give personal instruction to those who have bought it, at Mr. Baker's studio, at any time you will arrange with him. You have all seen him, and you can recognize him; you can fix the time to suit yourselves.

Mr. Black, who is to amuse us to-morrow evening with his stereopticon exhibition, has printed a pamphlet, in which he tells us how to get one, how to use one, and all about the stereopticon. This is given free to all who may come up to the platform for one.

On motion, adjourned.

*EVENING SESSION.*

Wednesday, July 16th, 1873.

The hall of Company D was crowded to excess this evening to hear the illustrated fine art lecture by Mr. G. Frank E. Pearsall, of Brooklyn, N. Y.

He was introduced to the audience by Mr. Edward L. Wilson, with the following remarks:

Ladies and Gentlemen: About four years ago it was my pleasure to call upon a photographic friend, then an operator at the studio of Messrs. J. Gurney & Son in New York. We had a pleasant chat upon photography and its future, and I found him earnestly striving for its progress and advancement. He was consciously making many blunders then, and by his blunders he was learning.

Something like four weeks ago I called upon him in his own studio in Brooklyn—the finest I ever saw—he the sole proprietor, and making such elegant work as you may all see in our Exhibition near at hand. I found in him the same thirst for progress and knowledge, and coupled with it the generous desire to impart it to others and to awaken in them the desire for advancement—the true evidence of advancement itself. That gentleman is the lecturer of the evening, Mr. G. Frank E. Pearsall, whom I take great pleasure in introducing to you. I am sure he will both entertain and instruct you. (Applause.)

Mr. Pearsall used the Wonder camera to show his illustrations, and entertained the large and attentive audience over an hour with the following lecture on

## A NEW TRAIN OF THOUGHT.*

The subject I have chosen to bring before you to-night covers a wide range in connection with practicing photography as a profession and art, though the points I may cover under this title will not be positively new, as there is "nothing new under the sun;" but I wish to call your attention to them in an original manner, trusting there may be one among my hearers that will receive a new impulse, awakening a deeper love for his profession, as I have from studying

* Mr. Pearsall has kindly consented to supply those desiring them with a full set of his illustrations at a nominal price. Please see notice in *Specialties.*

the points and preparing to bring them to your notice. This has given me many new ideas, and as I stand here to-night, conversing and illustrating by *photographs* the result of those studies, I will have occasion to turn them over once more in my mind, and imparting them to you with all the earnestness that I am capable of, it must also be of value to myself, as I hope they may be of interest to some of you. I wish to say as little of myself as will be consistent with the handling of the subject; but, before I proceed, allow me to say, and I fervently hope that I will make myself understood in this direction. Listen; no feeling of pomp or vanity prompted me to appear before you to-night. No; if I thought there was a chance of this, my first effort, being interpreted by you as a desire on my part to a display or show of *brains*, and swell out with individual importance, which I fear is becoming a fashion in the photograph literature of to-day, I would desist at once. My friends, though many years have I toiled in your ranks, I am but an humble follower, who has surmounted many difficulties, sustained many sore defeats, and I have arrived at many high aims, only to find myself still a student, and may God grant that I ever may be. I am no professor, neither am I ambitious to be styled a star in its zenith, but simply one whose heart and life's energy has been, and will be, bound up in art photography, until that day when it shall have shaken off those mechanical shackles that grind it down to the level of mere copying. By an educated and intelligent will, the vast resources may be grasped, and made to record those works that will portray feeling, sentiment, passion, and not nature as it is, but as it seems to be, for that is art and art's mission.

Having defined my position, I ask your indulgence and attention while exhibiting the photographs. These in themselves, and what they represent, are facts, as they were given to the public, and fell into my hands. Not one of the pictures I use to-night, to illustrate my remarks, has been made for the occasion; therefore I wish to show them to you in a manner that cannot be impeached. If I had made transparencies from each, and enlarged them by the magic lantern, some might say I misrepresented or exaggerated to secure my instructions. To escape such implications, I have, at considerable expense and time, constructed my apparatus on the principle of the "Wonder Camera" (first picture).

The first two pictures that I wish to call your attention to are of a young lady. Though she might not be styled handsome, she certainly appears so. Her manner, address, and general deportment were pleasing; in fact, she was accomplished; therefore, there was an atmosphere surrounding her that was inviting. One hour in her society, and one was impressed, using a usual term, that she was quite pretty. *Behold* what the camera, that never lies, has done for her! (No. 1.) Follow my pointer a moment, and see how great a deception has been produced. First, the contour has no symmetry, no balance; the outline is meaningless, and, take it altogether, there is a certain blasé air about it. The picture appears coarse, homely, silly, and disconnected. The hands and arms do not belong to the picture, and the throat is horribly represented. The story told here is *false*. You would be induced to believe by looking on this, that the original was a washerwoman dressed in good clothes. Let us see. (No. 2.) By viewing another picture of the same lady, you must agree with me that the two results are as different as possible. Now these two photographs were made under exactly the same conditions, with but one exception. The same skylight and appointments, same chemical operator, same time of day, all conditions as favorable to one as the other, except that the first one was made without art-knowledge, but by a worthy and good man, whose name has been a household word in photograph circles. The second was made by myself. The first I proved to you was a failure. The second must tell its story. It was made about five years ago. Now what is the basis of so great a difference in these two pictures? I will tell you. To the first picture again. There is no conception or creation of a single idea. It is a jumble placed before the camera, and mechanically copied by the chemical operator. This you may say is natural, because she must have looked just so, or the photograph would not be so. The second is the result of my art education. This is as nature seemed to me, and what I willed the chemicals and camera to produce for me, as an embodiment of not only the outward form of nature, but the soul, the intelligence, and the refinement the lady possessed. Thus I have demonstrated to you by these two photographs that the truthfulness of photography lies only in the truth of the conception of him who directs it, and the educated and trained artistic mind should stand pre-eminent, photography only a ready and willing slave to it. Just one moment before we pass on. As most men's ideas of art are governed by their innermost feelings, I will give you my definition of art. Listen; it is an educated sight—*the power of seeing nature as it appears to be, not as it*

*absolutely is.* I have now four pictures of the late Horace Greeley, taken about the same time, but so unlike are they, even with Mr. Greeley's characteristic features, were it not for his peculiar whiskers, you would hardly recognize them as representing the same person. The first one is from a very bad negative. (No. 3.) Here the likeness is lost by its being bleached out; in fact, it is nothing but patches of black and white, tinkered by bad retouching. The second one is from a much better negative, but the likeness is almost disguised by the effect. (No. 4.) You will observe that on looking at this picture, the first impression received is of a powerful contrast of shadow and light. As a photograph of such it may be considered a fair success; otherwise it is a total failure.

With this example before you, let me call your attention to the importance of guarding against this rock, which will wreck the foundations of any portrait—viz., the sacrificing the identity of the original to mechanical effects, or to a certain style that will stamp the author in bolder relief than the subject. This may be admissible in *genre* works, but in portraiture they have no place.

In these two pictures the man is lost and the mechanical is portrayed in his stead. I know that my works are only of interest to those who value the likeness, and to a casual observer they excite but little attention. This I am ambitious to accomplish. I desire no prominent position in my pictures, only as the last consideration; for if you call on me to portray one dear to you, I only fulfil my professional duty when I secure in the result that individuality, that indescribable something which surrounds every soul, but around no two alike, and convey to your heart a semblance of it. Mark me, I pray you. *Not an iota of myself* must appear until the connecting cord between that dear one and your heart is touched; then do I receive my reward in the satisfaction my labor has created, and not otherwise; for if on presenting this picture to you as a likeness, you should exclaim, What a splendid attitude! what a beautiful photograph! then it is a failure, inasmuch as the aim was to create a likeness.

The third photograph of Mr. Greeley, you must judge of its merits and demerits,—I being the author, it must speak for itself. (No. 5.) If it presents to those who knew him but a faint idea of his greatness, I am content. One point I am sure of—it is less a caricature of Mr. Greeley and has more claims to representing him intellectually, than the one to come after (No. 6), for here, if the idea was to represent Mr. Greeley as a booby, the author of this should be awarded a medal. I say this with all reverence to Mr. Greeley, as this is but a caricature of him. The author—well, I do not know him, but what I say of his effort in illustrating, my remarks are in nowise intended for him personally, any more than for others. Neither shall I fling at him the pet expression because he failed in sufficient knowledge or missed his calling, that he possesses no "brains."

From this picture I wish to call your attention to the folly and unsuccessful attempt at imitation. Follow the arrangement of the accessories. The curtain, the table, desk, and chair, even the placing of an open book on the desk; then the hat—which is also a light object—on the table to give balance to it, and convey a symmetry to the entire arrangement, show the result of a trained and thoughtful mind (except the chair, which perhaps was moved out of its place by accident). Here, in the disposition of these accessories, was the stepping-stone to a fine result; but the first glance at the figure shows plainly the design to have been copied; for no one with the knowledge to have started so well, would have ended in so unpardonable a failure as this. Observe the awkwardness of the feet, the idleness of the hands, the sogginess of the body, the peculiar cringing effect given by this shoulder; and the face is expressionless, from a desire of whoever retouched the negative to make Mr. Greeley look pretty. How absurd! All this from want of ability to know what to do.

You see, the moment Mr. Greeley was asked to sit, how completely the author of this abominable picture was at sea. He had a guide to pattern from in furnishing the picture, but of the figure he had none. The result is that he wrote himself an ass for attempting to palm off others' ideas as his own.

But no more so than the next two pictures will illustrate. The aim of these two pictures is to produce an illusion, to represent an outdoor or park scene under the skylight, in a pictorial manner. I have only to place the two pictures on the screen for you to remark how widely they differ. The first one, the one now before you (No. 7), shows plainly that the ideas were borrowed, and so little understood that a shocking use was made of them. Here is a child dressed in evening attire, or for a party, perched on what the author would have you believe was a hillock.

Look again: she seems to be suspended to the end rails of a snake-fence, broiling in the noonday sun, under a leafless tree; a pond of waterlilies at her feet, and last of all, a representation of the ocean, with headland in the distance, all

apparently under her, and a feeling of fear is suggested by the frailty of the fence. If perchance it should give way the child would be lost. The picture now on the screen was made by myself (No. 8), about six years ago, during my engagement with Mr. Gurney. The conception was original. I had never seen a foreground of an indoor picture that had any claim to imitate nature. My idea was to produce that illusion in connection with a likeness. How far successful I was this picture will show you. These pictures had many faults but were successful in their way. First they were much sought after, and made a deal of money for my employer; second, the requirements of the pictures brought to our ranks a man much needed. The artificial rocks in this picture were the first Mr. Seavey ever made for that purpose, and it was at my earnest solicitations that Mr. L. W. Seavey entered the photographic world. Third, nearly all photographers, at that time, found it necessary to attempt this style. The next picture represents a sensational style (No. 9), though not half as bad as many that I have seen, and which I earnestly advise no man to try. Here is a straining after something different, and the author has prided himself in making a position that never was seen before, and in so doing believes it must be a success, whether or no, for either from want of knowledge or defiantly so, he has disregarded all laws of form, balance, or drawing, and produced an unmeaning and disgustingly silly picture. This passion for fancy, high-flown attitude is foolish. In nine cases out of every ten the anatomy of the body is so contracted and distorted, that it is painful to look upon. Such a picture fails to please any but a vulgar taste. Action is hard to express in photographs, and it must be in a mild form, of which I will give you three illustrations. (Nos. 10, 11, 12.) The action here is fairly expressed; one can almost imagine the figure to be walking away. The group (No. 11) is the oddest conceived picture I ever made; in that it was a success, but otherwise it is slightly overdrawn.

In all my works of later years I have studiously avoided anything approaching affectation. It may be tempting where one is handling from twenty-five to thirty subjects daily, for the sake of variety; but believe me, for here I wish to establish a point for your consideration, that in art portraiture, as we practice it, the highest aim is in securing ease and grace; positions that are so fitting and so becoming, that they are a part of the subject as much so as the hands, or other parts of the body. It must not appear that the position has been dictated by any one. The next subject I wish to call your attention to, is proportion, and I have two pictures of Madam Parepa Rosa, a lady whom I presume you all have seen and heard; also a third picture of the same lady, to illustrate to you how ridiculous and absurd an estimable lady may be made to appear. First, I present to you a picture that has pleased this lady above all others that have yet been made. (No. 13.) I will tell you why. Here is represented a large, noble-looking woman, the relative proportion being good, a commanding height, broad shoulders, and a delicate waist. What lady would not be proud of such a figure? But *presto, change*, and behold what an ungainly, monstrous figure is here represented. (No. 14.) I ask the question, could the author of this picture have had a conception or knowledge of what treatment a subject like this required? I think the result speaks for itself that he had not, for failure is plainly written here. Every one present to-night, I think, will agree with me that to portray a lady and represent her as gross, and awkward, would be to incur her everlasting indignation. But pass on to the first picture (No. 13) a moment, and let us consider the causes governing it, and compare them with the second. First a low chair finds its value in giving a taller appearance to the figure; again, the Madam had recognized the necessity of looking tall by wearing a very long dress; not the trail, but here, from the waist to the floor. I was not slow to take advantage of this, and caused her to stand on a three-inch plank. This was a happy idea, a trick you may call it, but the result desired justified the act, as by adding this much to the height I took away from the breadth; again by presenting a full view of the shoulders the waist was made to look small, by comparison; and lastly, though by no means least, the size, which is a trifle smaller than the usual length of an imperial, and the placing of it lower, giving a large space over the head.

One moment, just observe the general contour of this before we pass on. It has some claims to a pleasing success, excepting this large space of background, which has some appearance of being "to let;" but even that is pardonable when it is borne in mind that so much vacant space had its influence in reducing the figure. (No. 14.) Too much ground cannot be complained of here—rather too much humanity. Here, you will observe, the treatment has been directly opposite to the other in every particular, especially about the waist and shoulders. Here the waist is larger than the shoulders, and the line of the back is unfortunate—made more so by its happening to come just in front of the

light on the ground. Here you have a heap of picture for your money, the head being nearly at the extreme top of the card.

I need not say more on this point, as you have doubtless caught the drift of my argument ere this; and having a great treat in store for you in the next picture of this lady, we will pass on. Here you have it. (No. 15.) Remember, this picture is of a dignified and talented lady. I saw this for sale, and, being struck with the absurdity of it, I purchased it for your benefit. Who the author is, or what it is intended to represent, I do not know. To criticize it—"Well, I give it up." I am powerless to do it justice. Let me remark right here that I do not wish to be too severe on this photographer, for I doubt not but that this worthy lady desired to have a picture representing some scene in which she took part, and insisted on placing herself for it. But that it should be published and sold, is beyond my comprehension. Moral: Never attempt to photograph a character-picture, unless you feel fully "equal to the occasion," which will be illustrated by the next picture (No. 16), which is a beautiful result, and speaks for itself.

By the following two pictures, which are of the same gentleman, I hope to awaken a new consideration—viz., the theory of phrenology as worthy of study. I know many do not believe in it; but I only wish to speak in a broad and general sense as commonly accepted. Those prominent characteristics that convey the idea of intelligence, just enough of the principle of phrenology to guard against photographing an intellectual man to look like a dunce.

Please observe in this picture the unfortunate impression conveyed by it. (No. 17.) See how the forehead retreats, the ape-like resemblance given to the head and face by the position selected; the eyes, nose, and mouth fail to give their proper character, and the awkwardness produced by the facial line falling behind the centre of the body. Then the lack of any place to store away knowledge about this head, and I am through. Now, this man possesses intelligence, and must have had a keen business tact, for he has been successful in life, and only through his ability. Is it expressed here? No.

And so it is in many cases that God in his infinite wisdom has given to man and woman rare intellects, that surround them with an atmosphere of learning, and who possess great minds and noble hearts, but unfortunately nature has hewn them out and clothed their outward appearance with rough and irregular features—figures that are not Apollos, &c. But is it fair, is it just to portray such men to look like idiots, like two of the pictures of Mr. Greeley I have shown you (Nos. 3 and 6), and the example now before you (No. 17); to photograph the rough, unpolished surface, without a glimmer of the soul within? No; do not copy nature here as you find it, but let the likeness of this or that one be portrayed by your willing slave, photography. As he appears to the world, his intellect, talent, and benevolence shine out and lend their power to soften down those hard-cut features and light up the weird faces. This can be done not by retouching, as many suppose, but by *study*, and placing the best which is in all faces foremost, as I have labored to do in this picture now before you on the screen. (No. 18.) Do you recognize it as the same individual? It is; but how vastly different!

Look at the great depth in the head; there is room enough to store a world of knowledge. And here take note of the perceptive organs; see how remarkably they are developed. I fancy things seen by this man are always remembered. Was this shown in the first picture (No. 17)? No; on the contrary, this very feature, the perceptive organ, was so copied that it gave him the appearance of a shovel head. Here (No. 18) the nose and mouth give great character to the face, which is also increased by the solid manner in which the head rests on the shoulders. Can there be a doubt concerning these two pictures? Have I erred in presenting this man to his friends, with his intellectual characteristics the most prominent? I fancy you will say I did not.

My friends, I have never seen a subject but of which a desirable and satisfactory likeness could be photographed, if it was studied intelligently; and of all the failures I have made, and there have been a great many, for my practice has been extensive, not one need have been so had I been equal to the task. I have heard from every side about bad subjects. It is a delusion, for with proper study these subjects termed bad become the best; for what credit is there in securing smooth, pretty-faced pictures? and yet it is a weakness we all have in displaying our handiwork. We will invariably present a handsome woman (No. 19) or pretty child (No. 20) for inspection; and when I tell you that some of the best efforts of my life, representing careful study—the ones to me the most choice (Nos. 21 and 22)—have been passed by for a pretty face, I doubt not that many of you have experiences the same.

With the next two pictures I shall illustrate how the lighting and the strength of photography affects the result. There are many faces that

are too much photographed; I mean the photograph is too bold and forcible; too much relief is produced by strong contrast of light and shade, and hard, short-timed negatives. This picture, now on the screen, is a sample of a very unfortunate class of photographs. (No. 23.) It is an exaggerated likeness, and conveys an unfavorable impression of the original. You must admit this on looking at this next picture, of the same lady (No. 24), which is from a negative not retouched,—no touch of the pencil has aided in this wonderful and happily different result. Please note, and let me impress upon you the value of this illustration; that relief, that standing-out effect of which so much is said, is not always necessary to a good and pleasing result. Hard faces, and hard photographs combined, produce the first picture (No. 23); the same hard face, under the influence of a soft, mild, retiring photograph, comes out gentle and with a winning expression. (No. 24) Why, one would almost pronounce this a good-looking woman, and I know the lady's friends, those that hold her in high esteem, consider her so. Why? because they do not estimate her likeness from a mappy standard; therefore the first picture (No. 23) would be discarded by her friends as doing her a great injustice; and rightly so. Look at the mouth, as represented here. It is positively repulsive. Not so in this one (No. 24), for here it is pleasing. Observe the cause of this. It lies in the lights and shades; the mouth, in the first picture, is ten times too strongly brought out.

With these two pictures before you can you still cling to the theory that all photographs must be truthful? If so, how can you reconcile yourself to these two opposite results with the same subject? In making the last picture (No. 24), I found myself, to use a homely expression, nearly stumped, for it was no easy task, I assure you; and this was only obtained after a protracted study and several sittings, and that it is obtained and is a fair success demonstrates beyond a doubt what I have already stated, that there is no subject but of which a good and pleasing likeness can be secured. One more fact is illustrated by these two pictures, that retouching is of minor importance, a secondary consideration. This is as it should be; I speak of it, as the majority of negatives produced nowadays are very much overtouched.

The country is flooded with all kinds of varnishes, and methods to prepare the surface of a negative to work upon. In my opinion these are unnecessary, and hurtful in making the negative so susceptible to the pencil that too much is worked on them. The anatomy of the features is lost, and a puffed-up and bloated appearance produced, like blowing the features full of air with a quill. I most earnestly entreat you to guard against this evil. Let the foundation of the picture, or the conception, be in harmony with each face, and you will find less use for the pencil with a far more satisfactory result. On my works I allow no more retouching than can be obtained by simply using the pencil on a hard lustrous varnish.

With a brief review of the facts that I have drawn from the contrasting of these several pictures and I am done. I have talked to you over an hour, and I trust that I have interested you; but not one word of formula or receipts. In this much I am successful if in no other way. I felt that you had been bored enough in that way by books; the only exception is Mr. H. P. Robinson's *Pictorial Effect in Photography*, which is a gem, the *par excellence* of all photographic books. Its pages are full to a letter of choice and valuable instruction. If there is one who has not read it I would advise him to do so at once. The information that I have endeavored to place before you to-night comes from high places. The pictures that I brought here purposely to pick to pieces, came from galleries that two or three short years ago all looked up to. I did this purposely, for if I point out the defects in the work of those who have been considered shining lights, it will be comparatively easy for you to see the defects in the works of the multitude of lesser lights.

I desire your earnest attention for a moment longer. The first examples I showed you demonstrate that the *truth* of photographic portraiture lies in the direction of *it*. This suggests study, for in your daily practice hardly two subjects will admit of similar treatment. Also, that in endeavoring to impart knowledge to others I instruct myself.

2d. The information I would have you receive from my illustrations to-night is that study is a necessity. I would have you educate the eye and train the mind to see the best in nature, and relieve yourselves of the great dependence on instruments, the exact manner of building skylights, formulæ, &c.; these have their place, which must be secondary.

First, the knowledge to observe correctly, then all else pertaining to securing the best you have seen will follow. What I wish you to understand me to say is, you must first possess a knowledge of what you wish to photograph before you can possibly make the most intelligent use

of skylights, instruments, chemicals, &c., in photographing *it*.

I will relate an incident that will further illustrate this to you. I have had photographers call on me when at work, stand by my side with a perfect view of the sitter before them, and wait until the instrument was focussed, that they might look through it "just to see the light."

Now what effect had the camera on how the light fell on this subject? *None;* and yet these men were artistically blind; they could not see what was before them. *Why?* Because they had no educated sight.

3d. That the practice of photography should be personal, and in the aim of that personality lies truth or falseness; also therein is the only claim photography has to be classed as a fine art.

4th. That, imitating the conceptions and creations of others without understanding them is wrong and hurtful. And, lastly, it has been my aim through all these illustrations to show that the art we practice is not mechanical, but based on knowledge and genius. There are those in the world who would scoff and jeer when I talk of art photography; but, my friends, I will say this as my closing remark to you, that the art of photography lies in representing nature as it appears to the intellect and delights the soul.

Mr. Pearsall was repeatedly interrupted by applause, and his lecture was a grand success.

*THIRD DAY—MORNING SESSION.*

THURSDAY, July 17th, 1873.

The Association was called to order by the President.

The President occupied a few moments with some notices handed in of situations wanted, galleries for sale, &c.

He then said: I have got Mr. Roche's process here, and as he is well known as one of the best outdoor workers among us, it strikes me that we should appreciate his kindness in giving it to all. I believe he has given it to every member present.

MR. SOUTHWORTH: I think that is one of the most important communications that has been presented to us. The gentleman is one of the most hard-working men we have among us. I propose that we give him a vote of thanks. (Agreed to.)

A MEMBER: I propose that Mr. Roche step out, that we may see him.

THE PRESIDENT: I hardly think that he will do that, as he is a modest man.

The following is Mr. Roche's process:

## LANDSCAPE AND ARCHITECTURAL PHOTOGRAPHY.

For general outdoor photography it will be necessary to have plenty of lenses, and the most improved camera box. Attempting to do work of all kinds with a single lens and an old-fashioned box will not answer. For instance, with an old-fashioned rigid, portrait camera box and a 4-4 portrait tube, trying to take a view of a five or six story building in a narrow street, or a view of a fine dwelling inside of a row of trees, the front of the camera not sliding up and down, the box has to be pointed upwards at a sharp angle, and the result is a picture without parallel vertical lines. No wonder that customers complain that there is something wrong, or, as one remarked to me, that his house looked as if all his cider barrels in the cellar had burst, and the picture was taken as the house was going over. Another instance I have seen this summer, viz., a professional photographer taking stereoscopic views with a rigid portrait box cocked up as usual and but one lens. This mode is, I believe, about the first used in making stereoscopic views, but has been long discarded for the twin tubes.

For stereoscopic work I use the latest improved swing-back Success camera box, Z, for 5 x 8 plates; and, by removing the partition, I can take single views the full size of plate, either vertically or horizontally. First, for buildings, interiors, ravines, waterfalls, or anything at close quarters, I invariably use a pair of the Dallmeyer stereoscopic rectilinear lenses. Second, in the field for ordinary work, I use the Dallmeyer quick-acting stereoscopic landscape lens, either 4½ or 6 inches focus. Third, for groups, horses, or any ordinary quick work, I use the Dallmeyer rapid rectilinear lens; for the full 8 x 5 single view I use a 6½ x 8½ Dallmeyer rectilinear or Dallmeyer's new wide-angle landscape lens, 6½ x 8½.

For 10 x 12 plates the new compact view Success camera is the lightest and best for field work. It takes up but little room in packing. With one of Dallmeyer's No. 1 or 2 wide-angle rectilinear lenses and a 10 x 12 rapid rectilinear, you are prepared for any orders on that size of plate,—buildings, interiors, groups, shipping, &c.

The use of the swing-back cannot too strongly be insisted upon.

The tent which I have lately used, and which I like the best, is one of the Francis tents, sold by Messrs. Anthony & Co., of which there are three sizes. These tents are very portable and compact, and can be used by placing on a tripod or by suspending from a tree or a fence.

**Formulæ.**—I do not albumenize my glass. I

take off the sharp edges all round either with the file, sandstone, or by rubbing the edges together. I then soak them in a weak solution of nitric acid and water, and thoroughly wash off under the tap; when dry, I clean with cotton flannel, a little alcohol, rotten-stone, and a few drops of ammonia.

My negative bath is as follows:

| | |
|---|---|
| Nitrate of Silver, | 4 ounces. |
| Distilled Water, | 40 " |

When the silver is all dissolved add eight grains of iodide of potassium dissolved in one ounce of water; shake the whole well up and filter. In trying a plate, if there be any sign of fog, not from overexposure, add one or two drops of C. P. nitric acid. After constant use a bath becomes saturated with excess of iodide, alcohol, ether, and organic matter. When in this state it is almost impossible to get anything like clear work. The quickest and best remedy, then, for rectifying the bath is boiling. For a bath of forty ounces pour a pint of distilled water in an evaporating dish; now pour the bath solution in and mix up with a glass rod; then add three or four drops of liquid ammonia and mix up well. Now test the bath for alkalinity with red litmus-paper; if it does not turn blue add more ammonia, enough to show a decided blue color on the test-paper. Place the evaporating dish on a stove, or use any other mode of heating, so as to bring the solution to a boiling-point. When the heat begins to act on the solution it will turn pink, brown, dark-brown; as it approaches the boiling-point it will become quite black. It is better to let it boil five or ten minutes. When the solution begins to boil it will clear, and all iodides and organic matter will separate from the solution, and the ether and alcohol will evaporate. The next operation is to set away to cool, and, when cold, filter until clear; then test for strength. If too strong, reduce with distilled water; if too weak, add silver to the proper strength, 35 grains for summer, 40 for winter. This bath is now alkaline, and it is necessary to add, drop by drop, C. P. nitric acid to it until it shows a slight acid reaction with blue litmus-paper. The bath will not require reiodizing. As a general thing, with Anthony's new negative collodion, this bath will give clean, brilliant negatives, full of detail and free from hardness. This mode of treating a bath in the studio or field is quick and certain, involving no sunning or waste of silver, and it has been thoroughly tested for the last fourteen years. I have boiled my bath in this way of an evening on the Sierras, at an elevation of ten thousand feet above the sea, and had it ready for work at sunrise. I have never found this mode of treating a bath to fail. The bath is the photographer's main stay. Watch it closely. Don't abuse it, or it will serve you some dirty tricks for neglecting your attention to its wants.

My developer for field work is—

| | |
|---|---|
| Double Sulph. Iron and Am., | 4 ounces. |
| Water, | 64 to 70 " |
| Yellow Rock-candy, | 3 to 4 " |
| Acetic Acid, No. 8, | 5 to 6 " |

If the silver bath has been in use long, the addition of one ounce of alcohol to the above developer will cause the solution to flow more freely.

As a general rule this developer reduces the time for dark details at least one-third; for studio work this developer is too strong, and should be reduced with water to suit the light.

In going but a short distance from home, you will only require a dark box or tent with all necessary chemicals, camera, tripod, and negative box; but for an extended trip you will need a chemical box or miniature stock depot, divided up into square compartments, to pack your bottles and extra stock in, as on railroads they are handled rather roughly. In travelling over mountains on mule-paths, you will require boxes long and narrow. They can be packed readily on each side of the mule, and can be well tied, so that, in case the mule should roll over, he cannot hurt anything. It is always best to make out a careful list of everything needed, for if you wish to do good work, go prepared for it—do not begin to make excuses about this or that article. Take all inconveniences you may meet with in good part, and keep your temper and powder dry. It is better, if you have the time, to reconnoitre the place on some day previous to working. Pick out your standpoints, and look out for what will make good stereo views and 8 x 10 or larger sizes; mark down the time of day the light is most suitable. In this way you can start in the morning with your traps, keeping the sun two-thirds or three-quarters on your work, and follow him all day, except for strong cloud or moonlight effects. For these you will require a box with the lid over your lenses, and will have to work directly towards the sun. Watch until the sun is capped on the edge by a cloud, and then expose for one or two seconds for the clouds. Then close the lid half down, and keep slightly moving it up and down between the horizon and foreground for detail in the picture. As a general thing, this class of views is intended more for cloud effects than a picture full of details or half-tones. The best moonlight effects are got near

sunset; then you have to work almost instantaneously.

My latest mode of working is to give a good exposure for details; and, in developing, get out all you can, but do not overexpose or develop so as to get a foggy or flat negative. For general work a well-lighted picture will not require, if your chemicals are in good working condition, any redeveloping or intensifying, by using Anthony's new negative collodion.

Some of our best landscape photographers have been for some time developing in the field, and finishing up at home in the evening or next morning. The mode is as follows: After developing the plate, wash off with water; then flow over a solution of glycerin—

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|---|---|
| Water, . . . . | 4 or 5 ounces. |
| Glycerin, . . . . . | 1 ounce. |
| Alcohol, . . . . . | ½ " |

Or you can dispense with water in washing off the iron, and flow on a solution of—

| | |
|---|---|
| Glycerin, . . . . . | 1 ounce. |
| Water, . . . . . | 4 ounces. |
| Acetic Acid, . . . . | 1 ounce. |

Flow on like collodion and drain; then flow on a second time, and put the plate in the negative box. In this way you lose no time in finishing up, but can keep on taking negatives. Plates with glycerin on them will keep a week or more with safety. When you reach home, wash off the glycerin, and fix in weak cyanide; then force up, if required, by any of the well-known methods. I prefer, after fixing and washing, to flow over the plate a solution of—

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|---|---|
| Acetic Acid, No. 8, . . . | ¼ ounce. |
| Water, . . . . . | 5 ounces. |

I then drain and flow over a solution of pyrogallic acid, No. 1, mixed with a few drops of acid silver, as per formula No. 2.

No. 1.

| | |
|---|---|
| Pyro., . . . . . | 60 grains. |
| Water, . . . . . | 20 ounces. |
| Citric Acid, . . . . | 20 grains. |

No. 2.

| | |
|---|---|
| Silver, . . . . . | 20 grains. |
| Citric Acid, . . . . | 10 " |
| Water, . . . . . | 1 ounce. |

This will bring the negative up to a good printing color, which will not change. Dry and varnish the negative. Keep the shield and camera free from dust in working, and take a general interest in your apparatus.

If the above may be of some benefit to those who are working in the field by the wet process, I shall be abundantly rewarded.

T. C. Roche.

The President: I have a letter here from Uriah Scales regretting that he cannot come, and hoping that we may have a nice time generally, &c.

Mr. Southworth: One of our members desires to bring before the Association a new use of photography in the multiplying and enlarging of handwriting and signatures in case of forgeries, &c., and he would like to have a committee appointed to hear him on the subject. They can examine the specimens and report to this Association.

The President: What is your pleasure in regard to that? I hope the committee will be appointed.

Mr. Wilson: I move that the committee be appointed.

The President: To-morrow morning Mr. Southworth will meet *all* who come to meet him and explain his process.

I have a communication here from Mr. J. Shaw, which I will read.

A. Bogardus, Esq.,

President of the National Photographic Association, in Convention assembled.

Dear Sir: I observed that my proposition of yesterday was very scornfully laid upon the table.

I think that this action upon so important a matter was hasty, to say the least, and I now ask that it be reconsidered, so that members who wish may at least have an opportunity to express an opinion.

This is a matter which interests every member of this Association, and I will venture the assertion that no more important question *has* or *can* be brought before its deliberative assembly, and I see no good reason why it should not receive at least a *respectful* consideration.

You no doubt will recollect that I proposed yesterday to the members of the Executive Committee to sell this patent to the Association, but that idea was discouraged, hence the reason why I suggested the formation of a company; but it still seems to me to be one of the most sensible things which this Association could do to purchase *any* good and valid patent, which must of necessity be used by all, for the very purpose of giving the *free* use of it to every member of our Association; and as there are now, and probably always will be, more photographers outside of this Association than there are in it, unless we

should adopt this plan of holding out such an inducement as is here suggested, that would no doubt prevail upon large numbers who now stand aloof to come forward and join us. At least I think the plan worthy of our consideration, aside from any personal interest of my own. If the Association were the owners of this patent its own members could be allowed the free use of it, and lay a tax upon the outsiders, and as the outsiders are now by far the most numerous, an amount could be collected from them which would not only pay a good interest upon the sum paid for the patent, but, in my opinion, would also support the entire Association, paying all of its expenses and relieve every member from the further payment of annual dues, and also allow, if we saw fit, to throw open the door of our exhibition-room to the public without money and without price, and at the same time I think that the prospect of the free use of such a patent, which every one was compelled to use, would be the very strongest inducement for the outsiders to join our Association, and thereby save themselves the tax, as well as all fear of an expensive lawsuit.

I brought this matter here, as I stated in my introductory circular (which, no doubt, most of the members have seen), for the purpose of giving every one a fair chance to consider the matter, and if he wished to, talk it up with his associates in business—and I cannot for the life of me see the impropriety of bringing it before you here, where all are interested. If, however, you insist upon making it a personal matter, I am ready to meet you all before the court, or elsewhere; but my idea was to give every one a chance to escape the expense and trouble of litigation. If this plan, however, does not suit you, I am ready to consider any proposition looking to an amicable settlement which is suggested by any member here present. But you can all rest assured that the unceremonious tabling of my proposition will not by any means end this matter; it may defer it, but if it does I am sure that you will all regret it. I trust, however, that for your own sakes as well as mine, you will reconsider this hasty action, and let us see if some amicable arrangement cannot be arrived at. If the majority of the members here present will come forward and take a license, I will meet any who choose to do so—here, in this room, after the close of this business meeting—and am ready to make any just and equitable arrangement to do away with the necessity for further litigation.

Very respectfully,

J. Shaw.

Buffalo, July 17th, 1873.

Mr. Rhoads: I move that the matter be referred to a special committee of five, to act in conjunction with the Executive Committee.

A Member: I second the motion.

Mr. Southworth: Before that motion is put I wish to state in the first place that I am very sorry the motion is made at this present moment, because I moved to lay it on the table.

Mr. Shaw is under misapprehension in regard to the look of scorn or anything pertaining to it in laying it upon the table. It was an act strictly parliamentary, perfectly honorable to the mover. It was on the table where it was ready to be taken up whenever anybody moved to take it up; and therefore he is somewhat mistaken in the whole mater.

In the next place, Mr. President, had this motion not been made just at this instant, I should have made a motion to take that paper from the table, and to hand it back to Mr. Shaw, and that a meeting of all the members who chose to meet after this meeting has adjourned should come together to consider Mr. Shaw's case, and that the action of that body be separate from that of this organization, entirely so. I should be glad to have such a motion as that accepted instead of the other. It is with Mr. Shaw's consent that I make this suggestion.

Mr. Webster: I really hope Mr. Rhoads will withdraw his motion and allow the substitute which has just been proposed by Mr. Southworth to prevail. I hope it will, for I believe that is the best way.

Mr. Rhoads: It seems to me the very best plan is that of conferring with Mr. Shaw; he may have some other proposition than this. I think a few can do it and bring the matter before this Convention better than a large body of members could do.

Mr. Southworth: That is just what I wish to do. They should act as an organization of individuals, and not be considered as acting for the Association at all, without the gentlemen choose to do it. Mr. Shaw consents to its being done that way.

Mr. Klauber: I think that a few appointed on a committee would do a great

deal more than the whole Association. For that reason I seconded the motion to appoint a committee, and that the committee, as such, could confer with Mr. Shaw with reference to the arrangements that have been made, and for them to report to the Association. They cannot do anything without the Association's consent. I think a few can do the work better than many.

MR. RHOADS: I would say that the matter has been before the Executive Committee for months, and they have postponed action, for the purpose of bringing it before this body. I think a special committee, outside the Executive Committee, can arrange the matter with Mr. Shaw with more satisfaction than any other body.

MR. SOUTHWORTH: Mr. President, I do not like to take up the time with a discussion of this subject. I think that it would be a good idea to take the whole matter out of the Association as an organization and consider it individually. It is not worth our while to bring it before the Association. To save the time, I wish to say, Mr. President, that this is out of the course which matters took in Philadelphia with regard to another patent which was precisely in the same situation as Mr. Shaw's is now. As it was not considered best to consider that then in the Association, I do not propose to consider this now. If this was brought up among us as individuals, we might discuss it just as long as we please.

Now, I insist that we ought to keep this out of the organization, and occupy our meetings regularly with matters that belong to the Association. These are matters of business that we have met here to get through with, and organized ourselves and chosen a President and Secretary, to do the best we can for ourselves as an association; but we do not work on individual account.

THE CHAIR: Are you ready for the motion?

MR. RHOADS: I withdraw my motion.

MR. SOUTHWORTH: I am much obliged to the gentleman.

THE PRESIDENT: A new resolution will be in order.

MR. SOUTHWORTH: I move that the paper laid upon the table be taken from the table and most respectfully handed back to Mr. Shaw; and that all the persons who choose to meet may come here, and they may hold a meeting among themselves and choose their chairman and secretary, and take up as much time as they choose. And we will meet Mr. Shaw, and consider it as individuals.

THE PRESIDENT: Do you all understand the motion?

MR. WEBSTER: No, sir, we do not understand it: there is one point we do not understand. I hear a voice behind me, who says he does not understand it.

The whole object of this thing is to take it out of this Convention.

A MEMBER: What is it that you are going to take out?

MR. WEBSTER: We want to take out individuality. That is what we want to take out—that it shall be separate from the principles of photography. This Association is based upon photography, and not upon individuality. Here is a matter coming out that we should consider individually and not as an association. Therefore the motion is that the matter of Mr. Shaw, which was laid on the table yesterday, be taken up and handed back to its author, together with the paper presented this morning; and that immediately after this session this morning, those who feel themselves interested can meet in this room and consider the question with Mr. Shaw. Then, if there is any proposition to make to this Convention, it comes from us as individuals.

MR. KLAUBER: Allow me to say a few words. I am not a fluent speaker, but I think we are driving to a very bad course. I think that this Convention is an association gotten up for the benefit of all, and not for one or two. I think the Association is gotten up for the protection of us all, and I think that when an individual comes with a patent which we cannot make, or which, as a body, we can get in such a way that it does not come on us heavy, I think that the body has to do with it, and not the individuals of it. I think that it is necessary for the members of the whole body to stand by each other, and to take up all such questions and patents, and, if possible, defeat them, if there is an unjust claim in them. Let the

Association take it up, and do the best it can for our members, but not to take it out of the Association, and let those patentees handle each one of us separately, where he can make a heap of money or make a heap of trouble. When we get the thing where it ought to be, we can each, by paying in a few dollars, do a great deal where we could not as individuals. For instance, if that patentee comes to Louisville and sues me, and goes to Jeffersonville and sues another, and goes to another place and sues another, in that case we are all standing separately. But if the Association takes hold of this work as a body, we can defeat him, or, if necessary, if we find that it is a valid patent, we can buy up from him an interest, and he would let us have it for a small sum. For that reason I am opposed to that motion.

MR. SOUTHWORTH: I did not suppose that this matter would occupy over three minutes, when you were reading that communication.

THE PRESIDENT: It has taken up a good deal of time already.

MR. SOUTHWORTH: In answer to what? I say that it is impossible for an association of individuals to combine to oppose a patent. It is a criminal offence to do it, and it cannot be done. That is the first point, and that is the law; for I have been several years in this business. Now, sir, if we take this out, we can treat it as individuals separately; we shall be satisfied, that is, those who treat. Those who have not treated will have the same privileges as those who have. I want to get it out of the regular meeting, and take it and act upon it individually. We will do what we can for Mr. Shaw. Those who want to, and are ready, can sign their names to papers; but we may pass as many resolutions as we please, they will not bind the Association to one single cent. You cannot do it legally. The only way is, for each man to put his name to the paper.

A MEMBER: That is what I should like to do.

THE PRESIDENT: Are you ready for the appointment of a committee of the whole, to meet Mr. Shaw, after we adjourn, and consider this matter?

Agreed to.

THE PRESIDENT: The question embodied also the taking of that paper from the table.

MR. CHUTE: The paper I read yesterday, perhaps, is a matter not well understood, if it has not occupied the attention of the Convention or of photographers generally; but it is one of great importance to us. And our action, now, perhaps in this matter, will be seen in the future. If we do not reap the benefit of it ourselves, those who are coming after us will reap the benefit of it.

I propose to make a motion that the Executive Committee be authorized to memorialize their State legislatures throughout the country to pass a law similar to that passed in Massachusetts, which I read yesterday, and that a committee of one from each State be appointed by the President to intercede with the members of their legislature, and have this matter properly brought before them.

Massachusetts has the matter in full operation at the present time in the public schools, also in the day and evening schools, and great progress is being made. It is not only being taken hold of by the State, but by individuals, and by the parties who have had money left them in trust. In Boston there is a Hall's fund left for educational purposes. The trustees of that fund have organized a school for art instruction, and they have a fine class there, and have made wonderful progress, as was shown in the exhibition held in Boston in May, where the hall occupied by the first convention of this Association that was held there in 1869, was filled with specimens of drawings from the public schools, and of the other classes, and of the school of technology. The specimens ranged all the way from the first rudiments of the school-book of the little scholar, where he commences to make straight lines, and join lines together, up to the finest finished water colors, and beautiful drawings, as I said in my paper yesterday. Members of this Association, most of them, feel the need of art instruction. We saw an illustration of this last evening in Mr. Pearsall's lecture; and in his illustrations which were thrown on the screen, we saw what art education would do for those who have it, in comparison with those who have it not.

I was reminded of that thing on coming

here on Monday. On the train, in coming through a town—I do not remember the name of it—I saw a large sign with very large letters, in which the word scale was spelled skale. Everybody could read it; it spelt scale, and nobody could doubt it. You could not make anything else out of it. He was not scientifically posted. It was a picture; but, if you make a picture, you must be sure that it is a picture of what you are after. Oftentimes pictures are made that do not express the subject properly. That is what we want and what we need. Art education is desirable, and I hope the members of the Association will see the importance of it, and will give this their support; and I hope proper action will be taken.

THE PRESIDENT: Is the motion seconded?

Several members seconded the motion.

MR. WILSON: I would amend Mr. Chute's motion, if he will permit, by, instead of having the President appoint a committee of one from each State, to make the Vice-Presidents that have been elected, to do that work, in order to give the Vice-Presidents something to do. Most of the Vice-Presidents are now present.

MR. CHUTE: I will accept the amendment very gladly.

MR. SOUTHWORTH: There seems to be a committee appointed with regard to this business, &c. I should like the Vice-Presidents to see what can be done. I have not the resolution before me, but as I happen to be one of the committee, I should be very glad to resign my position to Mr. Chute. I think that Mr. Wilson's suggestion and Mr. Chute's motion are both good, and would properly come up to the results expected of the committee.

MR. CHUTE: The gentleman seems not to have understood the motion fully; it was, that the Executive Committee be authorized to memorialize the different State legislatures, and to send a circular to that effect to every State legislature throughout the country, and also place in the hands of these Vice-Presidents in each State the duty of interceding in their own section, so as to have the matter properly presented.

MR. SOUTHWORTH: I second the motion.

Agreed to.

MR. CHUTE: I have also a resolution in connection with this. Probably some of the members may have seen the circulars that have been distributed in the Rink, in reference to the College of Fine Arts, by the Syracuse University. I will offer the following resolution:

*Resolved*, That we, the members of the National Photographic Association of the United States, regarding with peculiar satisfaction the action of the trustees of the Syracuse University in organizing the College of Fine Arts, in which photography is made one of its studies, and in the faculty of which we have a photographic professorship, we assure the trustees of our appreciation of their action in this matter and return our thanks for their generous recognition of our beautiful art.

MR. WEBSTER: I move that the resolution be adopted.

This motion was seconded by several.

MR. WEBSTER: And that we take the vote by rising.

THE PRESIDENT: Before we take that vote by rising, I would say that Mr. Ranger is the professor, and is a member of the National Photographic Association, and is in the room this morning.

The resolution was agreed to.

MR. ADAMS: I move that it be the sense of this Association that we appreciate the great benefit that Mr. Peter Cooper, of New York, has conferred upon photography, in forming a class for the instruction of beginners in the art, and the appointment of a professor for their instruction.

A MEMBER: I second that resolution.

Agreed to.

THE PRESIDENT: The report of the Executive Committee is now in order. That report was referred back to them for alterations.

MR. WILSON: Mr. President, the report which was read on Tuesday said, the Local Secretary of St. Louis reported the close of a very successful exhibition at the Convention, and said the expenses were $1494.28 over and above the receipts. The words "over and above the receipts" should be stricken out, and it should merely read, the expenses were $1494.28.

We now ask for the acceptance and adoption of our report.

A MEMBER: I move that it be adopted.

Agreed to.

THE CHAIR: The next thing before you is the report of the Committee on Nominations. Mr. Alfred Hall, of Chicago, is the Chairman.

While that committee is getting ready to report, their chairman not being present, we have a paper here on Insurance, by Mrs. W. M. Lockwood, of Ripon, Wisconsin, one of our members, which Mrs. Lockwood requests Mr. Wilson to read.

MR. WILSON: Mr. President, this letter or paper came to the Secretary, expressing a desire that something should bind us together as a fraternity more closely than anything now existing, and as self-interest is always the predominating trait with all of us, therefore Mrs. Lockwood proposes a plan which is new to some, perhaps, but not new to all of us. She proposes a sort of mutual life insurance, and this is her paper.

SHALL WE BE INSURED?

The question of insurance has been talked and thought of, more or less, for some time, yet nothing definite has been decided upon.

In the *first* place we are too young and small a society to have a great amount of cash or credit to draw from, therefore must devise some method differing from *ordinary* insurance companies.

A few years ago the railroad conductors organized into a mutual insurance company, elected president, secretary, treasurer, &c., paying each a salary, and on the death of any member, or if they became disabled, or too infirm to work, each member was to pay to the secretary the sum of one dollar, and after deducting necessary expenses the balance was to be given to the family of the unfortunate one. With them the fatality and accidents, of course, far exceed ours, as also their present numbers.

As in one instance, during the month of March last, they had five deaths, one appropriation for an infirm and aged member, and one for a permanently disabled one to pay for, making the tax seven dollars for each remaining member, during one month; but it did not seem very much for any one to part with, and each recipient was made the possessor of over thirty-two hundred dollars, and that was of course the amount left after deducting the necessary expenses. In nearly all those cases the family had nothing else to depend upon, and would have been very destitute without this friendly aid.

I do not think there is one amongst us who would wish to withdraw from as commendable an object as that.

It struck me very forcibly that it would be a very simple and easy matter to arrange a similar society, in conjunction with the one already organized, and not be obliged to elect other officers than those we already have, thus doing away with very many expenses, which the company referred to has to undergo, for beside the salary to the officers they have their annual meetings and expenses of their delegates to pay for, and only the *one object* to work for; while the only benefit they receive is the pleasure of aiding one another's families as their turn comes, and the knowledge that their own will receive the same assistance some time.

While with us any preliminary business could be done at the annual meetings of the National Photographic Association, and by-laws so arranged that every person would feel an *individual* interest in keeping their dues paid up, and also to have their friends join the society, as every member would count one more dollar towards making the amount to be received by each family, sooner or later; and would be equivalent to the same amount deposited in any other bank.

To those who might be left wealthy a few hundred dollars would not seem of much account, but to those less fortunate it would serve a good purpose, and keep them from want, and utter discouragement.

With these introductory remarks I leave the matter to the consideration of the Convention, and if the idea is received favorably by all the members assembled, I would suggest three or five persons be appointed or chosen to draw up a plan and by laws for such a league, and in harmony with our present by-laws for the National Photographic Association, and if it can be made so as to cover also the same ground as that intended by the "benevolent fund," why not add to that sufficient changes, and means, to make it an insurance for loss by fire, for photographers only?

I think with such arrangements there will be no photographers in the land who will have the face to ask, "What good is the National Photographic Association?" and assert they are just as well off as if they belonged to it.

MRS. E. N. LOCKWOOD.

MR. WILSON: The question now is, Shall *we* be insured? The question of insurance has been thought of, and talked of, more or less for some time.

THE PRESIDENT: If you have any motion

to offer with regard to that matter we will hear it with pleasure.

MR. WEBSTER: I move that the committee suggested in that paper be appointed by the Chair, and that that paper be referred to them for their earliest report.

Agreed to unanimously.

THE PRESIDENT: I will appoint the committee as follows:

I. B. Webster, Louisville, Ky.; Mrs. E. N. Lockwood, Ripon, Wisconsin; Mr. W. M. Lockwood, Ripon, Wisconsin; Prof. W. V. Ranger, Syracuse, New York; Mr. L. G. Bigelow, Grand Rapids, Michigan.

THE PRESIDENT: The Committee on Nominations are now ready to report, Mr. Alfred Hall, Chairman of that Committee.

MR. HALL: The following is the

REPORT OF THE COMMITTEE ON NOMINATIONS.

MR. PRESIDENT, OFFICERS, AND MEMBERS OF THE N. P. A.: Your committee, appointed to nominate officers for the ensuing year, would respectfully report the following: For—

*President*—Abraham Bogardus, of New York.

*Secretary*—Edward L. Wilson, of Philadelphia.

*Treasurer*—Albert Moore, of Philadelphia.

*Executive Committee*—W. Irving Adams, N. J.; W. J. Baker, N. Y.; W. H. Rhoads, Pa.; A. Hall, Ill.; I. B. Webster, Ky.; V. M. Wilcox, N. Y.; Daniel Bendann, N. Y.; C. L. Moore, Mass.

*Vice-Presidents.*—J. H. Lamson, Me.; B. W. Kilburn, N. H.; F. M. Rood, Vt.; G. B. Critcherson, Mass.; G. M. Carlisle, R. I.; E. T. Whitney. Conn.; G. Frank E. Pearsall, N Y.; A. W. McGarvey, N. J.; Frank Jewell, Pa.; N. H. Busey, Md.; M. Miley, Va.; J. Brown, W. Va.; C. W. Yates, N. C.; William Wiseman, S. C.; William Smith, Ga.; Miss E. P. Brown, Fla.; J. H. Lakin, Ala.; J. W. Braid, Tenn.: James Mullen, Ky.; E. Finch, Texas; E. H. Train, Montana; E. Decker. O.; D. R. Clark, Ind.; Z. P. McMillen, Ill.; S. P. Tressler, Kan.; Miss Webster, Mich.; C. A. Zimmerman, Minn.; S. Root, Iowa; W. H. Rulofson, Cal.; James Fennimore, Utah; J. H. Fitzgibbon, Mo.; W. H. Sherman, Wis.; F. Thorp, D. C.; Joseph Buchtel, Oregon; E. L. Eaton. Nebraska.

We make no nomination for counsellor-at-law, and would ask the Convention to empower the Executive Committee to employ counsel, if needed, during the year.

Your committee feel some embarrassment in making a nomination for the office of Permanent Secretary. The present incumbent has, since the birth of our Association, declined to draw the sum allowed him by the constitution for an assistant, or any part thereof. His duties increase so rapidly that, in nominating him again, we urge that it should be a *matter of business* between him and the Association, and if he is re-elected, that it is the distinct understanding that he receive the allotment made him by the constitution.

If we are not overstepping our duty, we would also suggest that some action be taken by this body with reference to services already rendered.

ALFRED HALL, Chairman.
SAMUEL ROOT,
C. L. MOORE,
JAMES MULLEN,
WILLIAM H. RHOADS.

A MEMBER: I move that the report be accepted and the committee be discharged.

After a few amendments were made to the list of Vice-Presidents nominated, the report was received.

The election of officers was now proceeded with.

MR. WILSON: It gives me more pleasure than I can give vent to to move that Mr. I. B. Webster, of Louisville, Ky., cast the unanimous ballot of this Association for Abraham Bogardus for President.

MR. RHOADS: I would amend that we include the vote for Mr. Edward L. Wilson to save time.

THE PRESIDENT: Before any such action is taken I have a word to say.

I have promised myself every year that it would be my last one as your President. The duties devolving upon me are very trying, and there are a great many of them, more than any of you have any conception of. I do not know but it is flattery, but there are matters brought to me to annoy me almost constantly; for instance, since I have been here I have received no less than six, perhaps eight or ten, causes of little disagreements between two men in one village. They come to me to settle them. While I like to be a peacemaker, I cannot settle such things as that. It does not devolve upon me to settle all the quarrels in the United States; if I did I should be more than human. (Applause)

Another thing. I feel entirely out of place here. It is a very trying position.

I have never taken my place here in the morning or at any session but what I felt as if I was out of my place entirely, there are so many questions brought here, and I know so very little about parliamentary rules, and if you were to ask me what I know, I should tell you nothing. I feel that there are a great many men who ought to occupy this place, and I ought to be relieved. I have served you five years as faithfully as I knew how. It is nothing more than fairness that somebody else should not only share the place, but also the honors, if there are honors. I have had all that I want, and I think it is no more than fair that some other man should now relieve me of the labors that I have endured for five years. I hope that you will make some other nomination. If you will do so, I shall be obliged to you. I should feel much better to sit down there among you as a high private, and I am sure I can fill my position just as well there. I shall feel as much interest in the Association as I have ever done, and I hope that you will relieve me of the position that I now hold.

Mr. Southworth: If we were going on a steamboat from here to Quebec, we should want a man who was used to going through the Rapids. We are in the rapids now. Let us keep our old officers on deck, and if in the place of the men who are now at our head we have to call help to hold the helm, call upon a few of us old fellows. We will clinch it at the risk of life itself. (Applause.)

Let us elect our old officers. Not because there is nobody else, but they have got used to the machinery and used to the members. They are used to it, and to-day we are none of us equal to the positions. They have held this Society together for five years, and they have kept it along in its steady course until it has got strength, until we feel that we can all of us be captains.

Mr. Hall: Mr. President, the committee very well understand Mr. Abraham Bogardus's position and feeling in the matter, but we came to the conclusion that the general who had led this army along for five years, and had won in every battle, was just the general that we wanted to march under. (Applause.)

Mr. Webster: I want to call attention to the report of the committee made on apprenticeship yesterday. If you remember, the diploma could not be given except after three years' practice. We have no other except our President, and we could not give a diploma to any other, because he only has had three years' practice.

The President: I have had five years.

Mr. Webster: That is so much the better.

The President: If it is so much the better, I ought to have my diploma, and go out.

Mr. Collins: I think you are entitled to it, and if you will serve us another year, we will give you *two* diplomas.

The President: I hope I am understood. I am not the man to give up and say I shall not serve. I do not like to do that; but I would say that I do ask that I should be relieved from my position. It has been a very trying one, and there have been a great many things this session that have annoyed me. I will not say anything about that, but I do hope that you will nominate some one else, and elect him to the position, and relieve me.

Mr. Southworth: I would inquire if there is anything in the constitution relative to this.

Mr. Bingham: I would say that we do not wish to impose upon him. He asks it as a favor that we relieve him from these duties, so that he can retire. He has served us well. I do not think it is right to ride a free horse to death. It is no more than we ought to do, and I think it is no more than right that if he wishes to be relieved, that we should relieve him. He asks it as a favor. We do not want to lose him, but he wishes to be relieved from his duties. I think that it is no more than right that we should do so. We hate to lose him.

A Member: That is my view of it, exactly. I think that there is no man who could serve us any better than he has served us. He has served us long and well, and I would be in favor, for the sake of his own feelings, to nominate another.

(Calls for the question.)

Mr. Fitzgibbon: Gentlemen, I would say to our President that if he promises to

serve us this year, we will promise to let him off next year.

MR. WILSON: Before the President answers that, I would say that with that promise, we reserve the right to change our minds about it.

THE PRESIDENT: That's the way the thing works exactly. It is pretty hard for Mr. Fitzgibbon to pledge his successors next year, for we go to some other place next year.

MR. COLLINS: I think this Association had better give our President a vote of thanks, and then look around and get another man, if we can find one, and be exceedingly thankful for what he has done for us. I think it would be impossible to find any man to do any better. I think it would be hard to find any one to do as well. Excuse me.

MR. BECKWITH: I have a suggestion to make. I do not know that it could be put in the shape of a resolution at this present time. It is to appoint a man as Vice-President, to assist the President in his duties.

THE PRESIDENT: You will have to alter the Constitution to do that.

MR. FITZGIBBON: I call for the question.

MR. WILSON: Mr. President, the motion I made was that Mr. Webster, of Louisville, cast the unanimous ballot of this Association for Abraham Bogardus for its President.

THE PRESIDENT: The question is before you. Are you ready for it? All in favor of the motion will please say aye.

Agreed to unanimously.

MR. WEBSTER: Mr. President, according to the unanimous vote of this Convention, in session assembled here this morning, I cast the vote for President of the National Photographic Association for Abraham Bogardus, of New York. (Tremendous applause.)

THE PRESIDENT: I now have the hardest time to make a speech I ever had. (Applause.)

MR. WILSON: That's the reason he did not want to be re-elected: he has run out of speeches!

THE PRESIDENT: It would run any one out after awhile. I must say I think less of the Association to-day than ever I thought of it. I thought they would have had a little more fairness than to elect me again. But, gentlemen, I will do the best in my power to serve you another year. But if I thought there was only one man in the Association to be its President, I should move its dissolution to-morrow. I cannot think that. You can have your minds made up for some one else next year.

A MEMBER: Two diplomas next year.

THE PRESIDENT: No, no, no.

Get your nominations ready for Secretary and Vice-Presidents. The Constitution requires it to be done by ballot, unless otherwise ordered.

MR. WEBSTER: Upon that point, in St. Louis, in 1872, it was my duty to stand at my post for two hours, as one of the tellers, in order to elect one set of men. It was two whole hours it took us to do it, and that was done by ballot. I make these remarks to guard you, if possible, against the adoption of the ballot vote. It is better to do it similar to the election of the President, if we can. It is much better. I therefore make the motion, Mr. President.

THE PRESIDENT: Suppose we take, with your consent, the Treasurer and Secretary together, and then the Executive Committee, and then the Vice-Presidents?

MR. WEBSTER: I was going to say that we should let the nominations of the various officers be taken collectively, so far as the officers are concerned, and separately in regard to the nature of the duties. That is the understanding and idea that we take one ballot for Vice-Presidents, and another ballot for Executive Committee, and so on, and that it be done collectively, and that we cast but one ballot.

MR. WILSON: We do not need any motion to do that. The Constitution allows it and fully explains it. We can try the other way first. If we cannot elect them, then we can try the ballot.

MR. CHUTE: If any one has an idea that it is not by ballot, they are mistaken. It is by ballot only. This Convention authorizes one individual to express the minds of the whole by ballot.

THE PRESIDENT: If the Association agrees, I think that would be the way. If the Association agrees, we will appoint some gentleman to cast the ballot of the Association for Secretary and Treasurer.

A MEMBER: I move that Mr. Rhoads cast the vote for Secretary and Treasurer separately.

THE PRESIDENT: It is a motion, gentlemen, and I am ready to hear you on it, that Mr. Rhoads cast the vote of the Association for Secretary, and after that for the Treasurer. I suggest that they be separated; we want a speech from each one of them.

MR. WILSON: I had a long speech thought of in reference to this matter, but since I have seen the bloody battle over yourself, and your total defeat, I think it is best probably to sit down. But I would reiterate what the President has said in reference to riding one horse all the time. None of you know hardly the labors of the secretaryship, and if I did not think I could benefit the Association by being re-elected, I would not consent any way; but I do think that there are plenty of others who would do just as well. I would like very much to be relieved. I have got something to do this year, in the interest of photography, that will benefit you just as much in another direction, so I would like, if I could, to be relieved from the post of secretaryship.

THE PRESIDENT: It is necessary that the Association should instruct Mr. Rhoads who to vote for.

MR. WEBSTER: For the nominees, Mr. President!

THE PRESIDENT: All in favor of that will say aye.

Carried.

THE PRESIDENT: It is ordered unanimously, that Mr. Rhoads vote for Mr. Wilson as Secretary.

The vote was cast.

THE PRESIDENT: I take great pleasure in announcing that Mr. Edward L. Wilson, of Philadelphia, is elected Permanent Secretary of the National Photographic Association. (Tremendous applause.)

THE PRESIDENT: Mr. Wilson, get up.

MR. WILSON: All I can say is, I will do the best I can. I have tried to do so heretofore, and have missed it in many directions I know. I will try to do better hereafter. While you are reading my report of this Convention, I will be crossing the Atlantic. I go purposely to gain information which I trust to find there, for our mutual progress and advancement in the future. My love for our art and my desire to be useful to its votaries, is the great incentive to go. I hope for your good wishes and a safe return to my field of labor among you. (Applause.)

THE PRESIDENT: Shall the teller vote for the Association for the nominee for Treasurer? Will the Association instruct him?

MR. WEBSTER: That is included.

THE PRESIDENT: You are right, Sir; you will now vote for the Treasurer.

The vote was cast for Treasurer.

THE PRESIDENT: I announce that the vote cast by the members for the person to act in that capacity is for Mr. Albert Moore, of Philadelphia. I hope Mr. Moore is present.

Mr. Moore not being present did not respond.

THE PRESIDENT: The next business will be the election of the Executive Committee.

MR. SOUTHWORTH: I move that Mr. Rhoads cast the unanimous vote for the Executive Committee.

MR. THORP: I move, as an amendment, that Mr. Rhoads be instructed to cast the unanimous vote of the Convention for the first five nominees. The constitution provides that the committee shall consist of five; more than that would be unconstitutional. Therefore I move that he cast the vote for the first five.

MR. RHOADS: I do not think it hardly proper for Mr. Rhoads to vote for himself, as he is one of the first five.

MR. WEBSTER: In that case I would suggest the name of our friend Mr. Southworth to take his place.

THE PRESIDENT: Will Mr. Southworth act in that capacity? If so we would like him to. Will you instruct your teller to vote for the nominees—the first five?

MR. THORP: Can I move an amendment to elect the first five nominees for the Executive Committee?

THE PRESIDENT: It is not seconded.

THE CHAIR: We will take the sense of the Association on the amendment.

MR. RHOADS: I believe the original motion was, for me to cast the unanimous vote of the Association for the Executive Committee. There were eight names on the list, and it was amended and I seconded it, that we take the first five.

MR. FITZGIBBON: I wish to speak to the amendment. I should like to know why the first five should be selected by one man in preference to selecting the others. That is certainly not the choice of the Association.

MR. THORP: I demand, upon constitutional grounds, that we cannot elect eight members without changing the constitution. I simply propose to make the motion, in order to bring it before the house; and instruct the man who is to cast the ballot, to cast it for the first five. I do not assume to have a right; but I have a right to make a motion of that kind, and demand that the committee shall not consist of more than five, without an amendment to the constitution.

MR. FITZGIBBON: I do not want more than five elected; but I do not see why the three lower ones should be left off and the first five names elected. Why not give all a chance, and have a ballot taken?

MR. WILSON: It is to save time.

MR. FITZGIBBON: Eight have been selected as nominees; now, then, why drop the last three? They may be three of the best men. I do not know who they are.

MR. WILSON: It is merely to save time; for last year, in St. Louis, we tried the other plan and we were over two hours occupied with it, and afterwards the tellers had to adjourn and report at another session. Mr. Webster explained the delay of balloting only a few moments ago.

MR. FITZGIBBON: Then I would like to ask the object of nominating eight when only five are to be elected?

MR. WILSON: You must ask the committee for an explanation of that.

THE PRESIDENT: I suppose the committee can explain.

A MEMBER: I would call for the reading of the names of those who were nominated.

MR. PEARSALL: I believe a motion was made to elect the names as reported by the committee, and I believe a motion was offered here which was not seconded. I think we all voted that the names the committee reported should be elected.

THE PRESIDENT: Just one of those questions comes up here that I am so annoyed by. I know nothing about these questions, and even Schuyler Colfax could not run this Association. Here is a committee who nominates more officers than the constitution allows, and a man gets up and says we can only elect five. Now, will some man let us know what I am to do? I shall not stand here and be annoyed by this kind of thing.

MR. WEBSTER: I move the nominations of the Executive Committee be referred back, and that they shall strike out three of the names.

THE PRESIDENT: What is your motion? I really do not know, but I think it is out of order from the fact that the committee has been discharged.

MR. WEBSTER: In that case my motion is certainly out of order.

MR. WILSON: First, the report is made; afterwards we receive it; afterwards we adopt it. We have only received this report. We have not agreed to elect these gentlemen; if we did, we should agree to break the constitution. We can only elect five.

MR. COPELIN: I call for a reading of the names of the first five. I move that we leave out the names of the officers from the nominations of the Executive Committee; you will then have about five names left.

MR. WILSON: The gentleman is out of order. The constitution makes three of the officers members of the Executive Committee, and there is a motion on the floor.

(Much confusion, and calls for the question.)

THE PRESIDENT: The question before you is that Mr. Southworth, as teller of this Association, cast the vote of the Association for the first five names nominated for our Executive Committee. Are you ready for that?

Cries of "Question, question!" were then heard from different parts of the house.

The question was then put.

THE PRESIDENT: I shall decide that the ayes have it, unless a division is called for.

Gentlemen, you have elected as your Executive Committee:

W. Irving Adams, New York;
W. J. Baker, Buffalo, N. Y.;
W. H. Rhoads, Philadelphia, Pa.;
Alfred Hall, Chicago, Ill.;
I. B. Webster, Louisville, Ky.

A MEMBER: I would ask, for information, if it has been the custom heretofore to add the Permanent Secretary and Treasurer of the Association, as so many additional members to that committee, by virtue of their office? The constitution provides that they shall be added, and I suppose that they are added by virtue of their office.

THE PRESIDENT: You are right.

Now, the next thing in order is the election of the Vice-Presidents.

MR. PEARSALL: I move that the election of the Executive Committee be reconsidered.

MR. SOUTHWORTH: A ballot election cannot be reconsidered.

THE PRESIDENT: Will any one explain this.

MR. THORP: Having had some opportunity of studying parliamentary practice in the Senate of the United States (I would state it was not as a senator, but by courtesy, I was admitted to the floor of the Senate for two years), I would explain that if this committee was merely a committee that was elected temporarily, or anything of that kind, a motion for a reconsideration of that question could be taken. As it is a committee provided for by the constitution, it is an election just the same as of any other permanent officer of the Association, and a ballot for them cannot be reconsidered.

MR. A. PEARSALL: If that motion was out of order, I believe it was not a unanimous vote of the Association that the first five should be elected. There was a division called for. It cannot be constitutional, according to the by-laws of our society, for one man to control the vote.

MR. FITZGIBBON: I would ask the Nominating Committee if they were aware that the first five names were to be taken? Thus, there is one of the nominees that I think ought to have been on that list of five; he ought to serve on this Executive Committee anyhow. The one I have reference to is Mr. V. M. Wilcox, of New York. There are members on that committee at the present time among the first five, who have been on for several years; and also there are new members. We do not know the routine by which the Executive Committee have been selected. Now then, there was last year a great dispute about not representing the two principal stock-houses of the country on that committee, and one gentleman resigned so that that firm could be represented. Now this year that same party is left off again; for what object I do not know. I think that these gentlemen of the committee ought to give us some explanation.

THE PRESIDENT: There is no question before the house.

MR. WILSON: I rise to make a motion, that Mr. Southworth cast the unanimous vote of the Association for the election of the Vice-Presidents nominated.

MR. BAKER: I will speak to the motion. It seems to me that the motion is out of order; that the election has been ordered and carried; and I wish, with your permission, to make a few remarks.

THE PRESIDENT: I hope you will speak to this matter; it is very confusing to me; and one of those very things that will induce me to resign unless we carry on this business with more order.

MR. BAKER (resuming): I think that we cannot work well when we are widely separated. On that ground, thanking you for the compliment that you have conferred upon me by placing my name on the Executive Committee and electing me, I beg leave to tender my resignation, and suggest that Mr. Wilcox, of the firm of Anthony & Co., be elected in my place.

MR. WEBSTER: Mr. Wilcox is—

THE PRESIDENT: The motion before us is that we go into an election of Vice-Presidents.

MR. BAKER: I regret very much—

MR. WEBSTER: I had something to say on that question, but Mr. Baker stepped up and violated the courtesy of the floor.

MR. A. PEARSALL: I think Mr. Baker had the privilege of the floor by the courtesy or sense of the Convention.

MR. BAKER: I wish to know—

THE PRESIDENT: I believe that I shall resign my position if I cannot have my feelings respected as well as other persons. I am not willing to stand in this place for a thousand photographic associations.

Now, as I said before, I know nothing about parliamentary matters, and it has been done year after year, and yet I am annoyed by the most intricate questions of a parliamentary nature, and by members of the Association, who ought to know better. I speak feelingly now. If you will put a motion before the house I will put the motion carefully, but I will not put motion after motion and mix them up in this style.

MR. WILSON: It seems to me that the President has that all in his own hands by virtue of the constitution and by-laws. There cannot be a second motion entertained when you have a motion already in hand. A motion to amend is always in order, but you cannot receive an entirely new motion; and it is the duty of the chair to rule any one out of order who makes such a motion. I call for the question.

THE PRESIDENT: Mr. Wilson insists on his call for the question. As I certainly understand it, his motion is that we go into an election for Vice-Presidents.

A MEMBER: I second the motion.

Agreed to.

MR. WILSON: I move that Mr. Southworth cast the unanimous vote of the Association for the Vice-Presidents named by the Nominating Committee, as our Vice-Presidents for the coming year.

Agreed to.

MR. WEBSTER: Mr. President and brethren, it is with the greatest pleasure in the world that I listen to the reading of the name of one of the female members of our Photographic Association, to be placed in a position of honor. I hope we will all take that view of it. I am sorry, and have regretted since the organization of this body, that the lady members of our organization have never been honored. Allow me to say—

MR. HALL: Two years ago I was on the Nominating Committee, and we honored a lady with a place on a committee.

MR. WEBSTER: Then my remarks are all out of time.

THE PRESIDENT: I suppose Mr. Webster will be satisfied when he knows there are two ladies on committees now.

Calls for the question were heard.

The President put the motion and it was agreed to.

THE PRESIDENT: Mr. Southworth will cast the vote for the Vice-Presidents nominated.

The vote was then cast by Mr. Southworth.

THE PRESIDENT: I will announce that the vote has been cast as you directed for the gentlemen and ladies named by the Nominating Committee. They are consequently elected for the coming year.

MR. SOUTHWORTH: Mr. President, we sometimes get a little mixed when we mean not to. We are now just a little mixed, and if you are willing and ready it is easy for us to clear the path and straighten it. Mr. Baker wishes, and desires, and means to resign his position on the Executive Committee. Mr. Wilcox lives in New York, and I saw when I was asked to cast the ballot just where we were coming to, and that we should want Mr. Wilcox. But I could not help myself; there was no time to correct it. Now this is the way to correct it, easily and comfortably.

I move, in the first place, that Mr. Baker's resignation be accepted.

MR. BAKER: After your rebuke, which I justly appropriated in a great degree to myself, I would not press my resignation. As I am informed the thing is in order now, I ask that it be accepted.

MR. WILSON: It has always been the habit of the Nominating Committee to reward the Local Secretary for his arduous labors, by placing him on the Executive Committee. This courtesy has been extended to our good Local Secretary Baker, and I do hope his name will be continued on the Executive Committee, and, rather than have *him* cut off, I would resign *my* position, and you can supply somebody to take *my* place.

THE PRESIDENT: Now it is still a little worse.

The question before you is on accepting Mr. Baker's resignation. Are you ready for the question?

The question was voted upon, and Mr. Baker's resignation was not accepted.

MR. BAKER: Gentlemen, I thank you for your partial support. I now demand to resign. If I had been sustained by a unanimous vote I should have accepted.

MR. SOUTHWORTH: It seems strange that when a man tries to make everything just as agreeable as he can that his motives shall not be so received. We were in a difficult spot, and Mr. Baker said he wished to resign, and he spoke for Mr. Wilcox, and for that reason, when he said it, I supposed he meant it; and then when the motion is put he demands to resign again.

Now I am hardly able to understand Mr. Baker's position in every particular, in the last position he took especially. Now I want to have him serve, and under the circumstances, supposing I was going to help the Society out of the difficulty, I made the motion as I did, not that I did not want Mr. Baker to serve. Mr. Baker should not attribute any such motive to those of us who vote for the Association, because we supposed that he was perfectly fitted, and we were doing it as peacemakers. But it is the last time I shall take that position.

MR. WEBSTER: Before this matter is dropped, there is another point to be put before the Convention. I want to read a small portion of the Nominating Committee's report.

There is a motion to adopt the report of the committee; I want to add to that a motion that the recommendation here embodied shall be adopted. If that meets with a second, I will read it.

A MEMBER: I second the motion.

MR. WEBSTER: I read from the report, viz.: "Your committee feel some embarrassment in making the nomination for Permanent Secretary. The present incumbent has, since the birth of our Association, declined to draw the sum allowed him by the constitution for an assistant, or any part thereof.

"His duties increase so rapidly that in nominating him again, we urge that it should be a matter of business between him and the Association, and if he is re-elected, it is with the distinct understanding that he is to receive the allotment made him by the constitution."

It is the report of the committee, and I would suggest that some action be taken on the subject, with reference to the services already rendered by the Permanent Secretary also.

It will be needless for me, Mr. President, to enlarge on this subject. This expresses it all. The services of the Permanent Secretary of this Association are onerous. His communications and correspondents are extensive. It takes his time and money.

The constitution allows him $500 a year for an assistant. Thus far he has refused to receive it. His reason for doing so was from his generosity, and from the fact that the Association was not flourishing pecuniarily for the last few years. Still it is a debt that the Association owes to the Permanent Secretary of the Association, and, Mr. President, I move the adoption of this whole report. At the same time when I move that, I move that we pay Mr. Wilson the money that is allowed him by the constitution. That is the point that I wish you to understand. That is the reason.

The President put the motion, and the report was adopted.

THE PRESIDENT: The next thing in order is the report of the Committee on Location for 1874. The chairman of that committee will please make their report.

MR. CARLISLE: Mr. President, your committee having convened at the hour appointed yesterday, and having organized and selected a President and Secretary, they opened the discussion upon the merits of the various places suitable for holding our next Convention. The feeling seemed to be decidedly in favor of the West, and as the Cleveland people have recently had the pleasure of entertaining the Convention, the choice seems to be directed towards Chicago. Therefore—

*The Committee on Location* beg leave to report that, after consultation, Chicago, Cleveland, New York, and Washington, were put in nomination. After some debate the ballot was taken,

and Chicago was found to have a decided majority; Cleveland coming next. By motion of Mr. Webster, Chicago was unanimously selected as the place to hold the next Annual Convention of the National Photographic Association, and Mr. A. Hesler is recommended as the next Local Secretary. And by his advice we recommend the second Tuesday in July, 1874, or thereabouts, for the opening of the Convention.

G. M. CARLISLE,
Chairman Committee.

On motion of Mr. Bingham the report of the committee was adopted.

THE PRESIDENT: Mr. Fitzgibbon has a matter he wishes to bring before you with regard to the postal law.

MR. FITZGIBBON: Mr President, I will detain you but a few minutes. This is a matter which concerns all of us, although we do not get much satisfaction from this document.

I hold in my hand a letter from the First Assistant Postmaster-General in reference to the sending of photographs through the mail.

Because of the many complaints I have heard, and what I have myself experienced, as to the loss of pictures, and to their being soiled in handling on account of the insecure manner in which under the ruling of the department we are compelled to put them up, in sending pictures to our patrons, I made an effort in behalf of the Association to have the same ruling modified, so that there might be some security from the evils complained of, not only to photographers, but to the public at large, who now complain that there is no certainty of their pictures going through the mails, on account of the prying attachés of the department in small towns, who examine them, and keep the pictures of the prettiest young ladies.

I do not see that we can do anything in this matter, except protest against the present ruling by calling the attention of the public to the same, who are more inconvenienced by it than ourselves. I will now read the letter.

POST-OFFICE DEPARTMENT,
APPOINTMENT OFFICE,
WASHINGTON, D. C., June 9th, 1873.

SIR: In reply to your letter of the 3d inst., I have to say that postmasters are required to examine all matter passing through the mails at less than letter rates of postage, to see that it is properly sealed and to detect fraud. Matter contained in a sealed envelope, notched at the corners, cannot be satisfactorily examined without defacing or destroying the wrapper, and is therefore subject to letter rates of postage.

This Department can see no reason for making an exception in favor of photographs, and must therefore adhere to the above ruling.

Photographs herewith returned.

Very respectfully, &c.,

JAMES H MARR,
Acting First Ass't. Postmaster-General.

J. H. FITZGIBBON, ESQ.,
No 116 N. Fourth Street, St. Louis, Mo.

I would also state that I inclosed to the Postmaster-General two packages of pictures; one put up with the corners of the envelope cut, so that they could be examined without handling, the other according to the present ruling, leaving the envelope entirely open, with a gum-elastic strap around it, so that they could be fully examined. I do not see why the Department should be so strict to the letter of the law in regard to photographs, when we are aware that there is hardly an article going through the mail, under the ruling of the Department, ever opened for examination; the roll being put up so that they could not examine them, unless destroying the envelope in part, which it certainly would if the letter of the law was carried out, instead of the spirit of it.

This subject during the session might be taken up, and some motion made to the effect, that we ought to petition the Postmaster-General to modify the present ruling on the subject.

MR. WEBSTER: I move that Mr. Thorp, of the District of Columbia, be appointed a committee of one, to take charge of the papers presented by Mr. Fitzgibbon, and that he represent our case at Washington; he living there can do it much better than we can.

The motion was seconded.

THE PRESIDENT: Are you ready for the question?

MR. WHITNEY: If he needs any assistance, I move that the Vice-Presidents of the several States aid him.

THE PRESIDENT: Are you ready for the question?

The question is, that Mr. Thorp, at Washington, act as a committee of one, to look after our interests at the Post-Office Department, in regard to the postal arrangement for forwarding our pictures by mail.

Agreed to.

The President now announced the programme for the afternoon.

He also said: In the evening there will be illustrated lectures by Messrs. W. J. Baker and Edward L. Wilson, at St. James Hall, at 8¼ o'clock, in reference to lighting the sitter, and how to manage the lines.

On motion, the Convention adjourned to 3 o'clock.

*THIRD DAY—AFTERNOON SESSION.*

THURSDAY, July 17th.

The Association was called to order by the President.

THE PRESIDENT: I will introduce to you Mr. Albert Moore, of Philadelphia, Pa., the gentleman whom you elected your Treasurer.

MR. MOORE: I joined the Association in its infancy. It has advanced since then. I joined it for life. I am perfectly willing if I can serve you best to take the front rank all the time, or to take the rear rank; but when I was in the militia they kept me out of the front rank because they said I spoiled the alignment in the rear rank. I will try to serve you faithfully, and when you are tired of me, gentlemen, I am willing to give up the account of my stewardship; but I do not want it for life. I will stick to the Association for life, but not for the treasurership. I would not mind being the Treasurer if you had something in the treasury. This dunning of folks is out of my line. Mr. French said that in early life when he taught bookkeeping, and he found his pupil had the balance on the wrong side, he told him he could not have it there, and he said it was the first illustration he had seen that the balance was on the wrong side.

THE PRESIDENT: The next thing will be Mr. Alva Pearsall's paper on Associations.

Mr. Pearsall read his paper as follows:

## PHOTOGRAPHIC ASSOCIATIONS.

As there have been so many papers read before this Convention on the practical parts of photography, and others will follow, it occurred to me this morning that perhaps a few remarks on another subject might prove of interest, to wit, Photographic Associations.

On looking over the list of associations yesterday, I was particularly struck with the small number in existence in the United States, compared with the large number of photographers and the numerous galleries to be found in all our large cities, and for that matter, I might add, the small cities.

From the record of the *Philadelphia Photographer*, and this is the only one I know of, it seems there are only about 12 local associations, averaging probably 30 members each, making the number of photographers belonging to local societies about 360 only. Now, it is estimated there are at least 5000 galleries in the United States, and not less than 15,000 practical photographers; therefore the 360 now belonging to local societies is a very, very small percentage of the whole number. Now, taking these figures into consideration, there is no reason why there should not be at least 100 societies, as there are certainly more than 100 cities with a population of over 40,000 each, which will support a sufficient number of photographers to form a very respectable association.

The advantages derived from these associations are too apparent, I think, to need any lengthy argument in support of them; suffice it to say, that in unity there is strength, and by our frequently coming together and becoming better acquainted with each other we will drive out whatever spirit of envy may exist among us. Again, there is no better way to keep photography prominently before the public than through these local associations. The local papers willingly publish in their editorial columns the minutes of the meetings; so, through this channel, it is plain that it remains with the photographer whether the public shall have a high estimation of our profession or not; and again, through the same channel, it gives the profession a dignity and higher tone; and, aside from these, the harmony and good feeling engendered among the members of the fraternity by coming in contact with each other, is of itself one of the strongest arguments in favor of these associations. We all know the great advancement photography has made in this country through the National Photographic Association, and where there are

now local societies the impulse given at these annual meetings is kept up during the year.

It is only six months ago the Brooklyn Association was formed, and we have now about thirty members working earnestly for the welfare of our chosen profession. And the prominent position photography has suddenly taken in this city (Brooklyn) can be attributed mainly if not wholly to this society. All the local papers support us, and notice editorially our monthly meetings; thereby giving a prominence to photography never before had in our city. And it is this very experience that gave me the desire to urge upon you the forming of societies throughout the country.

Now what a grand thing it would be if there were one hundred societies, and at our annual conventions each one of them were officially represented by delegates! Here I wish to speak of the splendid and praiseworthy example of the "German Photographic Association of New York City," in their handsome representation of photography as a body, and the taste and beauty of their display. Now supposing we had, say fifty societies, representing themselves at our annual conventions in a manner similar to this, with also the individual representation, would not our display be grand, and would it not give a new impulse and greater importance to these meetings? Making, as it were, our annual conventions a congress, represented not only by the delegates from the local associations, but represented in the exhibition by their works under the head and name of each society.

It seemed befitting to me to call your attention especially to this subject, as the country is so widely represented here, in the hopes that by doing so, that when you depart for your cities and towns you will do so with the firm determination of forming a society, let it be ever so small, and having that society officially represented at our next annual meeting, both in delegates and pictures. It is my firm conviction that this is what should be, and I sincerely hope that you all share this conviction with me, and on reaching your homes will move at once in the matter, and at our next annual meeting that we may be able to report at least fifty associations instead of thirteen, as now.

I will say, as corresponding secretary of the Brooklyn Association, I shall be pleased to hear from any one that will make an effort in his city or town to form an association, and will be happy to furnish whatever experience I may have gained, and also furnish a copy of our constitution and by-laws should any one desire it.

In this connection I wish also to make a few remarks on the issuing of diplomas. In the meeting before last of the Brooklyn Association, I introduced a set of resolutions, that were adopted, asking the Brooklyn Industrial Institute to abolish awarding of diplomas in future for photographic portraiture. This they have done, and I am glad to see that the Cincinnati Industrial Fair Association have done likewise. I think, instead of submitting our pictures to the judgment of two or three men—that never gives satisfaction—it is much better to let our *works* be our diplomas and the *public* our judges.

As in about six weeks from now the season commences for state, county, and city fairs and exhibitions, I think all photographers exhibiting at these should make a similar request; and I trust that all these fairs will follow suit and abolish diplomas, and in future we shall have still greater harmony and good feeling in the fraternity. I am certain also that whatever envy there may be now lingering among us will disappear forever.

THE PRESIDENT: We shall now have the pleasure of listening to our brother Moore on Plain Paper and Solar Printing.

At the bottom of this programme it says, "catechize him."

MR. MOORE: I hardly know where to commence. I think as far as plain paper printing is concerned that brother Clemons, whom you love to catechize better than you do me, knows best; he stands it better than I do; he can give you all the instruction that you need in reference to solar printing.

I think it would be better to let me know what you want. It is a pretty difficult thing to go through the whole matter, as I have learned it as my trade and my business, but there are one or two points for those who have direct solar cameras.

I speak of placing the spark on the amplifying lens. I always place it to cover as much as possible out to the brass-work. It will keep you doubling up, if you have a lens, if you keep it off the mark more than that. I have been asked how I would make a background where the card is cut out. I simply take the negative and paint it around with Gihon's opaque. That is what I use, then print a contact print, cut it out with the scissors, and place the paper between the glass. That keeps it from moving. Then print what I want, take the picture and cut it out and then double it up, the same as in contact printing.

In reference to toning the plain paper I think one thing would cover nearly all. The great art in toning is not to force it; you go too far. In plain paper you want your toning bath reduced to half the strength used for albumen paper. Stop it before you go too far, unless you want a cold tone.

THE PRESIDENT: Please repeat that.

MR. MOORE: In plain paper printing you mostly tone too far. I reduce my toning bath for albumen paper one-half always, and stop toning before it goes too far, as I would with albumen paper. If I salted my paper, for smooth paper, I prefer floating it in salt, but for rough or tooth paper I prefer immersion. About two grains of salt; I use ammonium and sodium.

I do not know what you want to know; if any one asks me questions I will stand it as long as I can; I will answer the questions you put. I am like the old lady who said that there was one thing she did know, and that was when bluing was good; take a piece of the size of a pea and place it in a glass of clear cold water, and whether it should sink or swim she did not know which, but that was what she knew. I am ready now.

THE PRESIDENT: Are there any questions?

A MEMBER: I should like to know where to make the spark.

MR. MOORE: Instead of placing the spark as you have been taught, or having a spark at all, I cover it.

QUESTION: Would you set it with a spark?

MR. MOORE: I do not set it with a spark, I have that covered. In reference to the getting rid of the ghost which some are troubled with, a small piece of cardboard perforated will do it in a measure, but it is a pretty difficult thing to do it; some parts will not be as much affected as the others. Professor Woodward told me that was about as nice a way of getting away from the ghost as could be given.

In reference to the reflecting camera, I do not know. I know Professor Woodward would give you all you want to know.

MR. THORP: I wish to ask a question as to the process of printing from an intense negative where it is very valuable.

MR. MOORE: The only way I know where the negative is valuable and you are afraid to cover it on account of not covering all the negative, was followed in a case which I will cite. One or two months ago a negative was sent to me of an old locomotive, the first one that was used on the Camden and Amboy Road. It was called the "Johnny Bull," having been built in England, and they wished to preserve it. They ordered twenty-four copies, and sent me the negative. Well, they might as well have sent me a door-plate, as far as strength was concerned. It passed light, still it was so strong it took the best instrument I have got—a sixteen-inch condenser—to make one print a day, and I do not like to run my shop like that. I sent it to a friend of mine, and asked him if he would not make me a transparency by a process which he was then working. I think it would be better to be away, and get out of it. He said he would have some plates prepared and try it. He made the transparency and I made the negative. I printed those twenty-four copies in two days and a half. If anything they were better than the first —I got better tones and more half-tones. How that was done, Mr. John Carbutt will tell you.

MR. HARRIS: I would like to inquire if you have practiced reducing negatives where they are intense?

MR. MOORE: I have practiced it like a good many other things — I mean only practiced on my own plates; I am afraid to touch what is the property of another. I never broke any in my life that were not "immensely valuable." I do not like to try those experiments. Sometimes my principal agent—the sun—will crack them; it will crack them right across in festoons. The sun cracks them in wavelike lines, and it always cracks them in the very worst places. Sometimes my boys say when they bring me a negative broken, that the sun broke it. I always look for these wavelike lines in the one place. The picture will be cracked right across in wavelike lines if the sun breaks it. When the boys break the glass and say the sun broke it, I say, let me look at it, and if it is broken in that way I know the sun did it.

A MEMBER: I would inquire how Mr. Moore prepares his bath?

MR. MOORE: In the winter I mix up a forty-grain solution of plain silver; in summer-time I run it down to twelve or fifteen, and, with the aid of my young man's fuming-box, I am a little better satisfied than if the paper comes off drier.

In a little time fume ten minutes. We tone with plain borax. We have used this for eight or ten years. It don't bleach as much as some others. We want to shut up the box so we can make the paper with a good tone.

QUESTION: How long do you flow a fifteen-grain solution?

MR. MOORE: Half a minute by the sand-glass.

QUESTION: Will you explain the fuming-box?

MR. MOORE: It is not mine, but Mr. Shoemaker is using it in my place. I can show it perhaps better on the blackboard. Mr. Clemons has a photograph of it, and will show it to you after a while. It was fully described with a drawing in the August issue of the *Philadelphia Photographer*. In our original box, making this the face of the door, we had merely a frame at the ends through them, and the ammonia was placed in here (indicating), and went up through the openings. All through that a slight covering. We did not want to use them. Here we find about one-half of the paper which stood down could not be got the same as on the top. The printing is more deep. My friend had an idea that he could construct the box in this fashion: Make this the front; in here we place our ammonia. You readily see that this is not an artist's work; this is merely a drawing. We have a small orifice here (indicating) to allow the draft to draw the ammonia through the entire width of the box to the back, about an inch and a half, and the fumes come up here and enter into this first chamber. This is the side of it, and this is the front. One sheet will go this way. Here is the top of the door. It comes up here, and the fumes go off through the pipes, going over one sheet, and then over another, and so on until we get up to the top. There we have a two inch and a half pipe which we connect with the stovepipe. That gives a draft, and draws the ammonia up. Putting the sheets on this side and on the top, the fumes will go up and pass out, being drawn up by the draft. The draft comes through and over each sheet over the back of the box, and in this way perhaps you get a good idea of it. By the use of this box there are no fumes in the room. When he first tried it he asked me if I had any objection to his using it. I told him that he might try it, and see how it would work. I wanted him to show me where the difference was in his new box. He tried it, and it worked satisfactorily. I have used that for four months, and it works with perfect satisfaction.

THE PRESIDENT: I now take pleasure in introducing to the Association Mr. L. G. Sellstedt, who will give us a lecture on "Art and its Relation to the Photographic Art."

## ADDRESS BY L. G. SELLSTEDT, ESQ.

In its broadest sense, every result of man's ingenuity is art. In one less broad, it covers the realm of domestic uses when beauty of form or color, or both, gratifies his taste. Narrowing the definition, it means skill in the production of objects or agents which do not directly minister to our physical life, but are calculated to give pleasure to our sensuous nature. In its highest and most limited sense it applies to the power of projecting poetic ideas. The highest art is felt, rather than seen or heard. It is the echo in man from the voice of nature, the sympathetic rapport between matter and spirit. Art may be compared to a lofty pyramid whose broad base rests on the ground, its apex being lost to view in the empyrean; between its gross foundation and its iridescent crown steps succeed each other, at first distinctly separate, but seeming to melt into each other above like those upon the famous tomb of Cheops. Truthful representations of nature, by whatever means produced, belong to its higher degrees, but their exact place cannot well be determined, since they seem higher or lower, according to the acuteness or dulness of the vision of the beholder.

How high or how low a place photography occupies in this scale I will not stop to speculate upon; suffice it, it may and should be an honorable one, since it is difficult to assign a limit to its uses in the economy of human happiness.

The starry heavens yield their secrets to the ever-prying camera no less than the surface of

our own abode. Nor are the gloomy caverns of the earth longer permitted to veil their crystal beauties from its gaze. The influence upon science, too, of Daguerre's discovery can hardly be estimated, nor can we imagine its importance in future researches.

Uses like these would seem to throw sufficient glory round the science of photography, and yet they are almost forgotten in its power to fix the fast-flitting beauties of light and shade or delicate outline which form so great a part of ordinary nature's loveliness.

Photography usurps not the reign of plastic art. Not only does she not jealously crowd her from her throne, but she becomes a valuable adjunct and lends her kind assistance in keeping her firmly fixed. In return, she courts the aid of her older and more experienced sister, becoming more and more graceful and true under her guidance.

The scope of photography is limited from the very nature of things, while scarcely any boundaries can be fixed beyond which plastic art may not successfully venture, for true art is not a literal transcript of Nature even when her own scenes furnish the motive. Neither painting nor photography can portray the sun in his actual splendor. The effulgence at once strikes the camera to blindness, and the most vivid pigments cannot successfully vie with the very dust of the ground when lighted by his glorious beams.

Neither painter nor photographer can, therefore, truly copy nature. He can only present a picture which shall be received as true by the mind of the spectator in proportion to its seeming nearness to her, his judgment being as often based upon ignorance of art or limited knowledge of the nature of the objects represented as on the actual verity of resemblance. This fact is well known, and the ignorant sometimes do not even look for any real truth in pictures, but are satisfied with any suggestion, however crude, that can be framed and hung. No wonder that even poor attempts in photography to such seem marvels of art. But it is not alone with stupid ignorance that the lover of the true in art has trouble. He has to contend with two other quite opposite classes. One of these is the highly imaginative, who cover the falsehood and poverty of weak art with the rich drapery of their own fancy, and find tongues in brooks which cannot run, "sermons in stones" that have no relation to geology, and, therefore, cannot preach, and "good" where none exists. The other class is composed of the wholly unimaginative, strong seers of facts who measure nature with rule and compass, and are ready to give the lie to all art. Art demands homage and the most careful study. She will not yield her treasures to the flippantly superficial or to the scorning proud, but she stands ready to reward with her most endearing smiles the humble and honest devotee.

Art knowledge depends upon the study of nature in its aggregate relations. In a good picture these are judiciously preserved; everything is in keeping and harmony; not any one object or part is absolutely true to the extent of deception, for if it were, the others could not be, but all are true with relation to each other. Such a representation of nature may not satisfy the mind that has recorded only some isolated facts and is ignorant of others, but to him who has kept his eyes open to God's works in their harmonious unity it will be a revelation of their author. Said a recent writer on art, whose works may be read with pleasure and profit, "Nature is very rich and art is very poor; nature has a million to spend where art has five hundred. What is the most precious thing for art to do? There are two ways of imitating nature. Art may spend side by side with nature, degree for degree of light, coin for coin till her resources are exhausted, and then confess herself a bankrupt. Or she may establish a scale of expenditures suited to her resources; and, abandoning all hope of rivalry with nature, set herself to the humble task of interpreting her. And here is the first essential difference between photography and painting; a difference which of itself is sufficient to separate them forever. Poor photography spends degree for degree with rich nature, and is of course very soon exhausted, but poor painting husbands her resources and spends a penny for light where nature spends a pound." I may remark here that in my allusion to photographic art I refer to pure photography, at least as the impression comes from the retouched and perfected negative. In the case of pictures finished by hand in India-ink, colors or charcoal, it is often difficult to determine to whom the honor or disgrace belongs, whether to the operator or the poor artist who finds his bread in his employ.

Any attempt to do with photography what can only be done with colors is abandoned by the intelligent photographer. There are other difficulties, however, especially with regard to figures, which bar the camera from competition with the brush, which I fear are not, except by the most cultivated members of the profession, so well understood. I may mention one or two of these. The camera can only tell the story which is before it. The most intelligent operator

can but arrange his figures for the instrument to copy; he cannot infuse an idea into his picture except through the immediate instrumentality of the model. In painting there exists a mysterious connection between the mind of the artist and the work. Every touch, even when drawing from the model, is modified and made to agree with his previously existing idea. This is idealization, and by this means the artist's poetic thought is impressed upon the spectator. Difficulties, owing to the focal distances of lenses, too, interfere sadly with choice of attitudes and true perspective with certain subjects. It is manifest that among these that of history is to the photographer the *opprobrium magnus*. Historical representation requires not only truthful drawing and artistic composition, but dramatic force, suggestive accessories and backgrounds harmoniously adapted, wholly incompatible with any *tableaux vivants*, however artistically composed, from which they could be photographed.

The same may be said of allegories. Whatever relates to the purely imaginary must come from the mind of the artist, or it will impress no other mind. He may be and is assisted by the living model, and even by the photograph, but ordinary facts are so modified by his own poetic ideas that scarcely a trace of them is left upon his canvas. I do not believe that poetic ideas, except in rare instances, can be transmitted by means of the natural facial expression of the individual. Use what attitude you may, if the real likeness-individuality remains, it will generally be a bar to fancy. This, of course, does not exclude correct drawing or natural coloring, which are the "*sine qua non*" of all good pictures.

In the department of art known under the general name of *genre*, especially with simple subjects, the photograph may be more successful, though the best specimens that have come before my observation have been immeasurably inferior to the same kinds drawn by the hand of real masters. *Genre* pictures may represent scenes in open air, or they may be interiors; they may represent action or repose, animal or still life; but whatever the motive, successful treatment requires not only a picturesque arrangement, graceful lines, and chiaroscuro, but a harmonious relation of parts too subtle for any instrument but the thinking brain and accommodating hand. Only living thought can envelop common nature in that atmosphere of poesy without which any picture in vain addresses itself to the mind; without this divine aid the most judicious selections and poses, *secundem artem* though they be, fail to give real poetic interest even to objects of beauty, while with it the skilled hand gives to squalor, poverty, nay, to vice itself, an interest or pathos which appeals to the finer feelings of man so as to call out his most delicate sensibilities and sympathies. This is art. Rules of composition in art form no exception to rules in general. They are simply laws which reduce the imagination to order and translate its visions. Their use even in tasteful groupings from nature no more produce pictures worthy of the name of art, than a strict adherence to the rules of grammar gives birth to poems.

Is photography, then, incapable of producing poetic pictures? No. She, too, has her possibilities. Said a lady to me once: "I think Heaven has bestowed no more beautiful gift upon us than photography, since its discovery." Without quite sharing her enthusiasm, I could not but sympathize with her when I remembered how much pleasure and benefit I, too, had received through the same source. To say nothing of the treasures reflected from the faces of living friends and of loved ones who have passed beyond the veil which are wholly priceless, the ability to visit the uttermost ends of the earth and to gaze upon its "cloud-capped towers and gorgeous palaces" at will, enjoying not only the noblest works of man, but the beautiful and sublime in nature, is a pleasure which may well weigh heavy in the scale against any derived from the swift messenger, "the sightless courier of the air."

All nature, uncontaminated by man's necessities and depraved tastes, is full of poetry. Every result of God's natural laws invites the closest examination. His love demands grateful praises not less in its minutest workings than in its grandest operations.

Not only in her aggregate grandeur is nature beautiful and poetic; not only in her visible harmonious details, but in the details of her details, till far, very far beyond the power of natural vision, the failing microscope hints at the divine within.

It is in its power to reflect the subtle details of nature that the camera has the advantage of the hand; for, supposing it possible for the eye to follow their intricate tracery, in the time necessary to draw them, the ever-moving light changes their appearance and relation. Nor is this all; living nature never rests; she is ever on the move—germinating, evolving, or dying.

Photography can be made the vehicle of reflecting with accuracy the delicacies of contour of cloud and mountain, with their transient mysteries of light and shade. But it is not here where her real power lies. To be sure, such pictures are of great value not only as views

but as studies of otherwise unrecordable facts to the painter; but if they are rendered so as to be of value for such purposes, the foreground is necessarily sacrificed. As *pictures* therefore they are incomplete, since all their parts do not bear harmonious relations.

The same objections hold good when the glitter of light on water is attempted, such ventures being altogether too dark elsewhere. I know that such defects may to some extent be avoided by combination-printing, and can conceive the possibility of wholly or nearly overcoming the difficulty by numerous exposures for a single purpose; but it has not been my fortune yet to see a picture where this has been done, and, though among the possibilities, the difficulty must in a majority of instances be too great to bring such photography into general use.

If this be so, it follows that photography, so far as it aspires to the art of picture-making, must confine itself to a smaller range. The most successful efforts of this kind of art which I have been able to note have been bits of picturesque scenes limited to a small space of aerial perspective, where the beautiful details have been brought out with inimitable charms, fairly catching Nature's refrain in her most musical mood.

But photographic views, even with the drawbacks above mentioned, are of very great value and convey a truer idea of certain features of nature than any method except elaborate and careful painting by masters of the art. This is particularly true of representations of mountain forms and geological wonders. The poor lover of the sublime or the invalid owes a debt of gratitude to the enterprising artist who, incumbered with his camera and often at the risk of life, has succeeded in placing in his home scenes of which he otherwise could have had no conception.

The advantage of the photograph over all other methods in representing ruins, inscriptions, and architectural wonders, is too well known to need comment. The stereoscope gives these kinds of pictures an appearance of reality truly marvellous. All are ready to bless the art that can so cheaply show the wonders of the world.

But there is a class of pictures, photographs as well as paintings, with which I have but little sympathy. I refer to such as portray architectural structures of common form, lifeless interiors, void of historic interest, and other results of man's genius, ingenuity, or pride, all in their newest gloss. Such imitations are the lowest forms of art, and by the earnest art student will ever be regarded as trifles. I speak now of literal renderings by ordinary daylight, not when the subject is steeped in the halo of gorgeous color or mantled in the sombre mystery of chiaroscuro.

To the reflecting mind these thoughts may not be new. I have long felt their truth but without attempting an analysis of my feelings. I was pleased, therefore, to find, on looking over Mr. Ruskin's preface to the Harbors of England, by Turner, that this great art thinker and master of language, with his usual terseness, has given a beautiful and clear form to my own shadowy idea. I shall make no apology for quoting the passage, and I commend its import to every lover and student of true art. He says:

"No great art ever was, or ever can be, employed in the careful imitation of the work of man as its principal subject. That is to say, art will not bear to be reduplicated. A ship is a noble thing, a cathedral is a noble thing, but a painted ship or a painted cathedral is not a noble thing. Art which reduplicates art is necessarily second rate. I know no principle more irrefragably authoritative than that which I had long ago occasion to express: 'All noble art is the expression of man's delight in God's work, not his own.'" Mr. Ruskin must be understood as applying to the newly-made work of man, for further on he again says with truth: "A ruined building is a noble subject, just as far as man's work has therein been subdued by nature's." And further on still he says: "A wrecked ship or shattered boat is a noble subject, while a ship in full sail, or a perfect boat, is an ignoble one; not merely because the one is by reason of its ruin more picturesque than the other, but because it is a nobler art in man to meditate upon fate as it conquers his work, than upon the work itself."

Perhaps no class of subjects better exhibit the possibilities of photography than portraits. Here in a well-constructed studio the intelligent artist is comparatively master of the situation. Here he need not grope his way in obscurity nor lose it altogether in excess of light; for it is under his control. The rays of light which refuse to affect his collodion he as far as possible excludes from his lens. He has choice. Though the study of composition and chiaroscuro is of vital importance in all departments of art, it is here more than ever that he can make his knowledge available. True art looks to simplicity; but to the simplicity which results from abundance, not that which grows out of poverty. In a photograph portrait the interest ought, as in painting, to be centred in the head, for it is the

human head after all that contains the intelligence which makes man the beauty of the world, the paragon of animals; nothing in art is so difficult to handle with success, and the feeble generally resort to accessory subterfuges which deceive none but the ignorant to cover up their faults and shortcomings. As the camera, if well constructed and commanded, need not fail to give sufficiently correct drawing and beautiful modelling, the photographer can well afford to practice the most rigid simplicity. I do not say that accessory details except in bust-portraits are inadmissible, but they ought to belong to the subject. In the hands of the man of genius they enrich, in others they incumber. This is as true of photography as it is of painting; and the command of the greatest technical skill in one will no more be substituted for real art feeling than in the other.

The utmost capacity of photography can only be reached when with complete control of his materials the operator is possessed of a cultivated mind, master of the principles which govern art, and deeply imbued with its spirit. Mere taste is not sufficient; he must have thought, too, and thought is the result of culture. Like the architect, sculptor, or painter, he ought to be a man of observation and able to segregate the essential idea from the unnecessary rubbish which surrounds it. Drawing, modelling, or painting are the means by which poetic ideas are unfolded in plastic art; in photography the chemical action of some of the rays of light upon a sensitized film or medium stands for two of these, and, when within their proper sphere, they are used by corresponding intelligence, bear corresponding fruits. Their results ought to be preferred to thoughtless skill, for they give better satisfaction.

With regard to the claim of the photographer to the name of artist I have only this to say: I shall always be as ready to acknowledge it in the photographer who possesses the true art-spirit as I shall be unwilling to yield it to the painter who does not. The earnest seeker after truth does not stop to consider by what name he is called. Words without their corresponding sense are trifles light as air. No fear but that the man of genius whose words prove his worth will be known and recognized as artist, while no unsupported claim that professional pride can set up will be likely to be treated other than with the contempt it deserves. Without love and self-sacrificing devotion to art a man cannot be artist in the only sense that can make it worth the aspiration.

I am too ignorant of the technics of photography to offer any practical advice that can be of use, and were this not so, this is not the time nor place to do it. The photographer must delve in the same mine for the treasures of his knowledge that yield them to the painter. I know not how much of the knowledge of composition, light and shade, and perspective may stand for genius in picture-making, but I do know that the more you study them the more likely you are to become imbued with the true spirit of art. Familiarity with any study will bring a love for it, and love is capable of working miracles. To what miraculous degree of height photography may in time be carried will depend upon the honesty of purpose of its devotees, their ambition, and their self-denial. In art as in science, patient investigation, humility, and persevering effort are necessary to success. We must stoop to conquer.

Mr. Wilson: Mr. Sellstedt is an artist of this city having nothing but good will toward photography, and, with that good will has given us this excellent paper; I therefore move that we return to him a vote of thanks.

Agreed to, amid loud applause.

The President: We shall now have the pleasure of listening to a dialogue between Mr. Fabronius, the portrait painter, and Mr. Baker, of Buffalo.

I may say that as Mr. Fabronius speaks English very imperfectly; he has requested Mr. Wilson to read his part of the dialogue, after which we will take up another subject that will give us all a chance to say something.

Mr. Baker: I will simply say that this is a dialogue which actually took place; it was reported by a stenographer.

Messrs. Baker and Wilson then read, viz.:

## THE FINE ARTS.

A Conversation between Mr. D. C. Fabronius and Mr. W. J. Baker, at the Tift House, Buffalo, July 1st, 1873.

Mr. Fabronius. As I look at photographs, I find a great fault that the photograph has lost its expression by retouching the negative.

Mr. Baker. That is very often the case; the plain print from the negative is often better. If I had a photograph which I wished to save for posterity, I would not have it tampered with at all. I would sooner have every spot, freckle, and line left standing as it was.

Mr. Fabronius. That is the reason I would

not have a negative retouched. The first photographers in this country, who have received the medals from abroad as well as in this country, for their photographs, ruin the anatomy and expression, as well as likeness, of the person by too much finish, or by finish that is not properly understood. It requires an artist to finish a photograph—to touch the negative. It is not enough in retouching a negative to take the wrinkles out, and smooth, and soften down the lights and shades, if, when it is finished, it does not look like the person. The difficulty in the first place is, because they touch up parts that ought to remain, and they destroy expression, shades that ought to remain, or strong lights, and by doing so, they destroy likeness, expression, and anatomy. And that is the one great fault in the retouching, in this finishing a negative. They print from it afterward, and produce a nicely finished picture, and people ask, "Who is that?" They do not recognize it; it was good enough in the beginning.

Mr. Baker. It is a finish of the same kind that cabinetmakers put upon their work, a sort of varnish outside polish.

Mr. Fabronius. Oh, yes, you might call it so. You can compare it with a man who makes a cast in plaster or iron, then another finisher comes and smooths it down and destroys all the anatomy of the artist; he destroys the bone and muscle and little details by scraping and scraping. A man opposite here brings me a cast, and there are some rough edges. I scrape, and take great care to scrape it properly, and if I know here is a muscle that ought to remain, and here a small nerve that ought to remain, I do not destroy them. I finish it, with due consideration to preserve the anatomy; that is an artistic finish. It is the same with the sculptor. Take Crawford, for instance, the eminent American sculptor, who died recently in Florence. He would have several men at work for him. He would say to one man, a common workman, "You cut this off into this shape;" then to another man with a little more skill, he would say, "You cut this a little nearer to this clay model, and you see that you do not begin to get inside of these lines; but you cut as near as you can without entering into details." Then he takes another artist, who goes a little nearer, then Crawford himself puts on the finishing touch.

A man ought to be a good artist to retouch negatives. In the first place he ought to know the expression of the person whose negative he retouches; he ought to know lights and shades; he ought to have sufficient taste to not make the negative too glaring nor too subdued, but keep the shades transparent, and have full knowledge of the anatomy of the head; not to destroy the bone and make the face a kind of dough, as if it were made out of a potato, putty, or anything of the kind.

Mr. Baker. The touch, in your opinion, then, generally quite fails of the object that ought to attend it; it produces merely an outside mechanical finish, merely a kind of smoothness, instead of adding to the general beauty and harmony of the picture.

Mr. Fabronius. Retouching is misunderstood entirely. A negative being made, when the proof is produced, it shows wrinkles, it shows spots, it shows lights too strong, or shades too deep. Well, we are going to retouch the negative properly. Now, here is a little line or mark that shows you the place of a bone; these little lines, if the person does not understand anything about bones, he will destroy, and the bone is gone. Here is a little mark, a little light which forms a dimple in the cheeks or in the hand, he will destroy that. Suppose it is a little strong and ought to be subdued, he destroys it entirely, and that little dimple is gone, which is one of the beauties of the face. Well, the same of the nose. I have photographs brought to me of which the nose is entirely destroyed. There is no bridge to it; there is no bone in it; it is entirely destroyed; it is a person without a bridge to his nose, an empty line without any significance.

Mr. Baker. In your opinion, then, as practiced at present, the pencilling of negatives had better be dispensed with entirely.

Mr. Fabronius. It is overdone, by want of knowledge of expression, or knowledge of the person who sat for the portrait. In nine cases out of ten they destroy the likeness for the want of knowledge of the person who sat. They retouch it, and never mind who it is; they retouch it without even knowing the person whom it represents.

What would you think now if I were to take a portrait, work at it until the last two or three days, I knowing the person very well, then put it in the hands of a young man, and say, "You finish this portrait for me." He would say, "I don't know the person, but I will smooth it down." Will that be a likeness? The likeness comes in the finish of those last two or three days.

I can name to you several persons who have worked for me, who made negatives for me, and gave me proofs of the negatives without retouch, according to my request. I would, perhaps, state that they would answer my purpose. They say:

"Now I have got a beautiful thing; now I am going to make some specimens of that to put in my show-case." They retouch it, and by the time they get through it is no likeness at all.

MR. BAKER. We find generally that the parties themselves, and their friends too, take the touched photographs instead of the untouched; that is my experience. They demand it; they will have their pictures smooth.

MR. FABRONIUS. They demand it, but you should retain the likeness. They do not demand that you destroy the expression, or touch the eye when it ought to be kept light.

MR. BAKER. I think this nice change which you speak of as having, in a really fine sense, destroyed the likeness, most people are oblivious to.

MR. FABRONIUS. We are not working for those people now; we are working for the fine arts.

MR. BAKER. The photographer has to work for those people in nine cases out of ten.

MR. FABRONIUS. We are not supposed to be working for ignorant people, but for people who have a knowledge of the fine arts. We must not work to please ignorant people; we must work to please those who have knowledge. There is no use of talking about that; it is a mistake. We have got to bring the people up to our taste. It is not for us to go down to their taste; they have got to come up to us.

MR. BAKER. I recognize that, of course.

MR. FABRONIUS. Take a large establishment where they take probably fifty negatives in a day. How much difference will it make in the cost of a negative, whether the firm pays a man one thousand a year or two thousand? And what is more, the public is willing to pay two or three dollars more on a dozen to have a better thing. I always found that I was just as busy at crayons at $300 as at $100 each, or $50. I am longer over it and do not make any more money, but I give better work, and the people are willing to patronize good work. I believe that a man can make twice as much money by charging double if he gives double the value for the money. So if he charges twelve dollars a dozen, and he proves to the public that his work is worth twelve dollars a dozen, the people are willing to give it. I am sure that if I were to start to-morrow, and could prove that I would do better work than you, yet charge more, I could get the work.

MR. BAKER. You could of a few people.

MR. FABRONIUS. I don't care if of a few, if I could make more money in a year.

MR. BAKER. I don't know; I doubt that you can'd. Take it in a smaller place where there are still fewer people of taste—in a town, for instance, of ten thousand inhabitants, you would starve to death; in a place like New York it is better than it is here. There is a class of people who are educated, and know what good work is, and in a large city you can depend upon those. There are but few in a place like Dunkirk, and none at all in Tonawanda.

MR. FABRONIUS. It is a mistake; there is something of truth in it, but not so much as that. Some day, if they know you to be an honest man, and you tell them the reason why you charge them so much, people will pay you for it. If I were a photographer, and you came to me for tintypes, I would say to you, "Look here, it is about time that you stop this nonsense of getting horrible photographs and ferrotypes; you have got to have something decent. You won't get more than one lot or so in a lifetime, why not go sincerely about it, and pay a dollar or two more, and let me make you something good?"

MR. BAKER. I have done business on the principle that you advocate; the consequence was, I did not pay my expenses for three years. I would have people come up, twenty in a day, perhaps, and want me to make tintypes, and they would go away because I did not make them. I have now a very good business, but it was at the expense of four or five years. And often now I find one of those former tintype customers come because they are recommended by their friends. But if a chance customer comes for a tintype, there is no use of talking photograph to him; we never try to argue or talk with them, we find it is of no use. I think your experience is very different as a portraitist, in doing a limited quantity of work, than if you had tried to wholesale your work. But probably this is not a subject that is very profitable to discuss.

Do you recollect any of the line of talk we had about lighting and sitting, and arranging the light, at the time you were at my place? I was speaking there about the skylight, and speaking of it as a poor kind of light. You preferred a side-light. You spoke about the light the photographer used not being definite enough, not massing the lights and shades enough.

MR. FABRONIUS. I go into a room where negatives are taken—

MR. BAKER. Skylight or operating room?

MR. FABRONIUS. Skylight room. The lights are in every direction. Properly we should never think of such a thing in an artistic point of view, but have the light come from as small a place as this window is. (Mr. Fabronius here, by way of illustration, closed all the shutters to

his window but one of the upper ones.) You do not want light coming in from below the knee; the light must come from the side; nothing below, nothing on the other side, but light like that gas, which is a positive light. It would be as if I should close one of these upper shutters and leave the other open—just positive light, so (indicating)—a light that covers six feet square.

MR. BAKER. Do you consider six feet square large enough for a photograph?

MR. FABRONIUS. Let it be twelve feet square or twenty feet square if you want to, only let it be positive from one direction; do not let it be all over the ceiling. If it is to be skylight, do not let the ceiling be all glass. Let it be northern light if possible, then there is no sun to shine through in the morning or afternoon. The northern light is always steady. Let it be above the head of the person sitting, and then do not have the reflections too strong: the resulting picture should be warm. What we call a warm picture is one that is not too pale—not too strong a light. Have the highest light on the top of the forehead, the next strongest light to be here on the ridge of the nose, the next on the cheek-bone, and then, if you have that kind of light, you have the whole face shaded.

MR. BAKER. Your objection to the skylight consists not in the nature of the light so much as in the use of it. If I have a skylight I place my sitter so that the peak of the light is at the side of the sitter, and from that the light slopes down to within seven or eight feet of the floor. Now, that would produce the same kind of positive light as you want on a sitter. A light that comes bearing down on both sides produces a bad light,—two equal sides of the face.

MR. FABRONIUS. Of course, you can manage the light as is pleasing to the artist. It is a general fault to have light all over here and all over there, and streaks this way, and streaks that way, from all directions, and specially in the Rembrandt. To have the whole face in the shade, or the face lit in every direction, is entirely wrong. I will show you what the Rembrandt light is. (Mr. Fabronius here adjusted the shutters so as to admit the light through a very small aperture.) Have the light strike on the forehead and a little on the nose, and the rest in shade, the principal light limited to the top part of the forehead and nose.

MR. BAKER. Photographers call these Rembrandt pictures where the light comes upon the narrow side of the face, but Rembrandt lighted his pictures on the broad side of the face.

MR. FABRONIUS. Yes!

MR. BAKER. A copy of Rembrandt's that I have was lighted upon the broad side, but the photographer would not call it a Rembrandt unless he got the sitter between him and the light.

MR. FABRONIUS. That is a mistaken idea altogether; the Rembrandt light means a limited strong light, not all over the face, but just merely on the forehead—a small portion of the forehead—and a little on the nose. The rest of the face not total darkness, but you can see in the darkness—*clair obscure*—light in the shade. There is Rembrandt again. The Rembrandt is dark and yet you see everything in the picture, because it is all transparent. It is just like going into a cellar; at first you do not see anything, but as you remain two or three minutes you begin to see everything. That is *clair obscure*—light in darkness—everything visible and yet in the darkness.

MR. BAKER. Do you note any other wrong practices in photographers?

MR. FABRONIUS. They are using white powder for the face, which I notice as a very great mistake. A girl powders all over because she is brown and wants to take light; and when she is done, we have everything white as if she were covered with snow. Her hair is like a cobweb. If they wish to powder, why cannot they use Naples yellow? It would not destroy all the warmth of the photograph.

MR. BAKER. That is a mistake entirely. The powder is of no use whatever except in the very deepest tints of the hair, and very delicately put on, so as not to destroy the texture or flow of the hair. The light blonde can be produced without a particle of powder on the face. There is a great difficulty in putting powder on at all: it remains in patches, and the texture of the skin is gone. No artist's work can regain it. Not only that, but the shape of the face is gone also. My practice leads me to take grounds decidedly against the use of powder.

MR. FABRONIUS. If they must be powdered, let them be powdered with something warmer than white. I don't know that there is anything in the drug store that would take the place of white and not injure the skin; but it seems to me Naples yellow would give a warmer tint. We must have a tint all over the face.

MR. BAKER. No white spots!

MR. FABRONIUS. If you have any white spots, it will be the high-light on the forehead and the

light on the nose or catch-light in the eyes. We don't want black and white in photographs.

Mr. Baker. In treating drapery, a man's shirt-bosom is much whiter than his face,—would you deepen the tone of that below the face, or would you allow it to be whiter?

Mr. Fabronius. By all means. When I use the white, I always use it for the shirt-front. I hardly ever use any white for my face even. If it is drawn on very dark paper, I use the white solely for my shirt-bosom. It gives warmth to the face by the contrast.

Mr. Baker. You allow it to remain white?

Mr. Fabronius. Yes, sir.

Mr. Baker. Suppose you could place your sitter so that it would be shaded, would it not be a gain?

Mr. Fabronius. You cannot gain anything at all. My idea is that a little bit of white is a relief in a picture, to contrast with the face. If you put a little white on the shirt-bosom, it brings a warm tint out. A little touch of white relieves the face and gives it tone. It gives actually the appearance of flesh, where there is no flesh color.

(Mr. Fabronius here illustrated his proposition by alternately covering and uncovering, in the glare of the gaslight, his white shirt-front, by the lapels of his black coat.)

Mr. Baker. Your face naturally has but little color; but as I look at it to-night it seems full of color—full of different shades.

Mr. Fabronius. You see what nice color it gives to the face. This white gives quality of color. If a lady has a white dress, it is very important to have a little contrast by having black velvet or ribbon to relieve it. We have got to put the same taste in a picture with which a lady dresses to go to a ball. She puts a flower here or a leaf there to relieve other colors and bring them out. So we have got to do with pictures. We have got to do it in photographs and oil-paintings, and we have got to do it in crayons.

Mr. Baker. Well, Mr. Fabronius, I must say good-night, or I shall soon have to say good-morning. There are many more things that I should like to talk with you about, but I am a thousand times obliged to you for this opportunity.

The reading of the dialogue was attentively listened to, and was frequently interrupted by applause.

The President: Mr. Carbutt will now give us some remarks on a new enlarging process. We shall be glad to hear from him.

Mr. Carbutt read the following on

## HOW TO MAKE ALBUMEN POSITIVES FOR REPRODUCING NEGATIVES.

Mr. President and Members of the N P.A.: Five years ago, on the formation of the National Photographic Association, it was hoped that secrets in photography, among its members and the process-monger, would be a thing of the past, but, like the Wandering Jew, we regret to say he is still alive. Our constitution tells us that the aim of this Association is to improve the art and science of photography by diffusing scientific knowledge among its members, and to discourage and oppose any unjust imposition which tends to hamper the progress of the art. Now, the encouragement given during the year in purchasing several secret processes, by members of our Association, is in direct opposition to the object for which we come together. I therefore make no apology in laying before you a process I believe will produce results identical with those of the secret process of Mr Edwards, further than to say it is done in the general interest of photography.

Being invited to read a paper on the production of positives before the Pennsylvania Photographic Association, I prepared a brief paper on the making of albumen positives, which was read on the evening of June 16th. The general formulæ and instructions for working I collated in one evening from my photograph journals, with one exception, the iodizing of the albumen. I adopted what I deemed would best serve my purpose. Since writing the paper just referred to I have adopted the quick alkaline mode of development in place of the slow acid developer of M. Ferrier; therefore, I now place before you *my new process*, which is everybody's process.

In the July number of the *British Journal of Photography*, 1870, is a modified collodio-albumen process by G. Markham, in which plain collodion as a basis for the albumen is recommended; this process was republished in Anthony's *Bulletin*, and recommended for producing positives from which to make enlarged negatives; also at p. 240, Towler's *Silver Sunbeam*, is a modified albumen process in which either iodized or non-iodized collodion is used. I therefore adopted thin, plain collodion with which to coat the plate, and after setting, immerse in water, wash and flow with the iodized albumen prepared as follows.

The formula was first published by W. Ack-

land in the *Photographic News* for 1865, and repeatedly republished by writers on the collodio-albumen process.

To Prepare the Stock Albumen.

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|---|---|
| White of Fresh Eggs free from germ, | 8 oz. |
| Water, | 1 oz. |
| Glacial Acetic Acid, | 24 drops. |

Mix the acid with the water, then add the mixture to the albumen, stir together with a glass rod one minute, then, after resting one hour, strain through muslin, and to the strained liquid add half a drachm of strong liquor ammonia. This prepared albumen will keep good for years. I iodize two ounces at a time as wanted, and there is no objection to iodizing the whole quantity, but I find albumen thus prepared the best in every respect for the preliminary albumenizing of glass for gallery and field use, by diluting one part with water 20 parts, and strongly recommend its adoption.

Iodized Albumen.

| | |
|---|---|
| Stock Albumen, | 2 ounces. |
| Iodide of Ammonium, | 10 grains. |
| Bromide of " | 4 " |
| Chloride of " | 2 " |
| Rock Candy, | 6 " |

Dissolve the dry ingredients in one drachm of water and add to the albumen; strain through moistened cotton in a glass funnel into a beaker-glass. To prepare the plates, coat thin glass previously coated with weak albumen, as above recommended, and dried with the following plain collodion, prepared a day or two in advance. Mix as follows:

| | |
|---|---|
| Alcohol, | 2 ounces. |
| Aqua Ammonia, | 12 drops. |
| Negative Cotton, short fibre, | 20 grains. |
| Ether, | 2 ounces. |

When cotton is dissolved add 2 ounces more alcohol.

When the collodion is set on the plate place in a dish of water until the ether and alcohol are displaced by the water, and in case of using bromo-iodized collodion until the iodides and bromide is washed out, stand to drain while you coat and immerse another plate with collodion. Flow over the plate the iodized albumen in such a way as to drive in one wave before it the moisture on the plate, and off into a separate vessel. Flow on again three different times, running it off from a different corner into the filtering-funnel; lay the plate on a tumbler or bottle-mouth made level, and pour on enough albumen to freely cover it; let remain while you wash and place to drain a second plate, then take up the plate and run off the albumen into the funnel, and set it to drain on one corner on several thicknesses of blotting-paper. When the plates are surface-dry finish drying by heat, letting them get quite hot. To sensitize them prepare the following solution:

| | |
|---|---|
| Nitrate of Silver, | 1 ounce. |
| Water, | 12 ounces. |
| Glacial Acetic Acid, | 5 drachms. |

Or take 10 ounces of any negative bath, free from alcohol and ether, and add to each ounce 30 drops of glacial acetic acid. In preparing a new bath it should be saturated with iodide of silver. Place in a flat dish, raise the end nearest to you, stand the plate on the upper side of the dish, lower the plate and dish at the same time so as to cover *quickly* and *evenly* the plate with the solution, which is left in the bath thirty or forty seconds. With a thin strip of silver bent at right angles you can raise the plate, and place it in a dish of water. I usually sensitize six before proceeding to finish them. Take the first plate, wash well under a tap for about a minute, place for a few seconds in a 10-grain solution of chloride of ammonia, wash off and flow over a 2-grain solution of gallic acid, and place to dry on blotting-paper in the dark-closet. Those who have never seen a simply excited albumen-film will no doubt be surprised at its transparency, as compared with a collodion film containing a similar amount of excitants. When making transparencies by the coffee and other dry processes, I invariably place at the back a piece of yellow or dark-red paper, but owing to these plates being so transparent I found in them a tendency to blur. Having some backing ready prepared I tried it, and found it to remedy it. As a backing for these and other dry plates, nothing is better than Gihon's Opaque.

**Exposure of the Plate under a Negative.**—I find it best to place the negative in a frame provided with plate-glass, and strong springs to insure close contact; expose to a north light five to sixty seconds for acid pyro. development, and one to six seconds for alkaline pyro. The mode of development is peculiar. (See article in the *Photographic News Almanac*, for 1868, on M. Ferrier's method of working the collodio-albumen process.) After washing off the backing, flow over the following developer, which is a modification of the one in the article referred to, and that used in the Eberneum process.—*Photographic News Almanac*, 1869.

| | |
|---|---|
| Pyrogallic Acid, | 25 grains. |
| Citric Acid, | 10 " |
| Acetic Acid, | 1½ ounces. |
| Water, | 9 " |

Take one ounce, warm over a spirit-flame or gas; after being on the plate one minute, return to the developing-cup and add two or three drops of a ten-grain solution of silver. Bring out the image with the use of as little silver as possible, otherwise the blacks which should be transparent will be more or less opaque. If the image comes out quickly, stop the too rapid development by adding some cold developer; if, on the other hand, the image comes out very slow, use the developer hotter. When all detail is fully out in the high-lights, wash off and clean the surface with a wad of fine, wet cotton. Fix in a solution of hypo soda. Wash well and dry. I do not recommend their being toned for reproducing negatives.

To develop by the alkaline method, recent writers on the collodio-albumen process recommend development of those plates as is now commonly practiced by collodio-bromide workers. I have succeeded in developing plates in the most satisfactory manner, both by the formula as used by Price, Giberne, and others, and by the recent strong alkaline pyro, as recommended by Colonel Stuart Wortley, which I use in the following manner. Prepare the following solution:

ALKALINE BROMIDE.

| | |
|---|---|
| Water, | 3½ ounces. |
| Aqua Ammonia FFF, | ½ " |
| Bromide of Potassium, | 40 grains. |

ALCOHOLIC SOLUTION OF PYRO.

| | |
|---|---|
| Pyrogallic Acid, | 96 grains. |
| Alcohol, | 1 ounce. |

Wet the surface of the exposed plate, wash off the backing, add to one ounce of water fifteen minims of the pyro solution, and flow over the plate. Then add thirty minims of the alkaline bromide and return to the plate. Applied quickly and evenly, the image will appear in a second or two, and develop about as quick as an ordinary negative. When considered sufficiently out, wash freely, and fix in a strong solution of hypo. If the exposure has been correct, the color of the deposit will be on the olive-green tone; if overexposed, on the reddish-brown tone. The plates require no cleaning with cotton; they are singularly clean and bright. Should they be required for lantern purpose, they can be toned in the old hypo and gold bath, but I strongly advise those who may desire to produce albumen transparencies to bear in mind that a transparency suited for enlargement is not suited for the lantern, and *vice versa*; and for the following reasons: A transparency for enlarging should be so developed as to bring out fully the detail in the high-lights in order to produce roundness in the enlarged negative. A transparency for the lantern should be slightly underexposed so as to enable the lights to be as transparent as possible.

In the production of enlarged negatives the simplest means often produce superior results, therefore no expensive, large cameras or bath-holders are required. A small room, with a darkened window, with an aperture to admit light reflected from a white card, to illuminate the positive; a small camera and portrait tube, with the transparency occupying the place of the ground-glass, placed on a level support in front and centred with the aperture; an upright easel, with a cross-piece to hold the sensitized plate, and a flat dish, large enough to sensitize the plate in, is all that is required. Give full exposure, using a small diaphragm. For developer the following is good:

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|---|---|
| Sulphate of Iron, | 480 grains. |
| Water, | 27 ounces. |
| Acetic Acid, | 3 " |

In reproducing negatives of the same size, proceed in every respect as in producing the positive, by exposing a plate under the positive previously made.

Mr. Carbutt was loudly applauded, and thanked by the President.

MR. CARBUTT (resuming): You will find frequently deposited on your negatives a membranous matter which should be removed. After that is removed your albumen will keep for an almost indefinite period, if corked up tight.

I will endeavor to illustrate the method of sensitizing a plate. It is very important. Suppose this is a dish; you slightly raise it up, and take one of the plates in your fingers; rest it on the upper edge, and lower it in this way. The solution comes back and covers it one way. If there is the slightest hesitation in this the plate will be covered with marks. Then we take a strip of silver and raise it up.

It should be placed towards the light.

THE PRESIDENT: Again, with your permission, I thank Mr. Carbutt for his paper. (Immense applause.)

THE PRESIDENT: We have received a communication from the Grosvenor Library

at Buffalo, which is a free library and reading-room, as follows:

GROSVENOR LIBRARY,
BUFFALO, N. Y., July 16th, 1873.

WM. J. BAKER, ESQ.,
Secretary National Photographic Association,
Buffalo.

DEAR SIR: This institution is desirous of obtaining reports of all scientific bodies, and if there has been an annual report published relative to the photographers' general assembly, we would like to have a copy of the said reports. We should also wish to have it arranged so that each year the General Secretary of the Association send us a copy of its proceedings.

If not regularly published, then please send copies of what have been.

I am, Sir, yours, &c.,
ALEX. J. HUBBS,
Secretary.

I refer you to inclosed circular.

MR. BAKER: I move that the thanks of the Association be tendered, and that our Permanent Secretary be instructed to furnish the Grosvenor Library with the copies desired, and future copies.

Agreed to.

THE PRESIDENT: I take great pleasure in introducing one of our members, Mr. W. H. Sherman, from Milwaukee, Wisconsin, who will read his paper on "Printing, Toning, and Finishing."

Mr. Sherman read his paper, viz.:

## PRINTING, TONING, AND FINISHING.

The silver print is formed by the action of light, through the negative, on a sensitive surface consisting of certain salts of silver and certain organic substances. The salts of silver chiefly used are the chloride, AgCl, and the nitrate, $AgNO_3$. The principal organic substances are cellulose, gelatin, and albumen.

Pure nitrate of silver is not acted upon by the light. Pure chloride is reduced on exposure to a violet subchloride, $Ag_2Cl$, which dissolves in the fixing bath used to remove the unreduced chloride. By adding an oxidizable organic substance, and using both nitrate and chloride, the silver is reduced by the action of light to a suboxide, $Ag_2O$, which is not dissolved by the fixing agent. Accordingly the paper upon which the print is to be formed is sized with gelatin or albumen. Other organic substances having the property of absorbing oxygen, and serving to fill the pores of the paper, are also sometimes used, such as starch, casein, arrowroot, tapioca, these substances having been found useful in aiding the reduction of the silver, or in other words, in giving sensitiveness to the paper, while at the same time they retain the print upon the surface, thereby giving it vigor and brilliancy not otherwise obtained.

The preparation of the paper previous to the silvering has come to be considered a separate branch of the photographic art. The work of the printer is understood to begin with silvering the paper, and this he is obliged to undertake without knowing the kind or quantity of the salt employed in its preparation. He must therefore find by experiment, or he must be informed by some other person who has found by experiment (or otherwise), how to proceed with each different quality of prepared paper to obtain the results desired.

A knowledge of the kind and quantity of salt employed in the preparation of the paper would undoubtedly enable experimenters to arrive at a more definite and satisfactory understanding in regard to the subsequent treatment. One sample of paper, by reason of the *strength* of the salting, may require a correspondingly strong silver bath. One brand of paper, owing to some property it possesses, may give beautiful results if silvered after some unusual formula; for example, the bath consisting of nitrates of magnesium and sodium and a salt of lead with the silver nitrate; while with another paper the compound will work discomfiture and defeat.

The different nitrates formed by the reaction which takes place when the paper is silvered, will produce variable results. If the paper is salted with chloride of ammonium, nitrate of ammonium will be formed in the paper and bath, $AgNO_3 + H_4NCl = AgCl + H_4NNO_3$. Chloride of sodium will give nitrate of sodium; chloride of calcium, nitrate of calcium. These nitrates are all deliquescent. On the contrary, the nitrate of barium which would form if the chloride of that metal were used, requires eight or ten times its weight of water to dissolve it. Again, if chloride of ammonium is used, 68 per cent. of this salt is converted or transferred to the chloride of silver which is produced, while only 32 per cent. goes to the new nitrate. Chloride of barium, on the other hand, furnishes only 34 per cent. (only one-half as much as the chloride of ammonium) to be converted into chloride of silver, while 66 per cent. is set free, and is, with the nitric acid liberated from the silver, used in forming nitrate of barium. From these examples it may be deduced that to complete the study of the science and art of printing, an exact

knowledge of the substances employed in the preparation of the paper is necessary.

We find a great variety of formulæ for printing-solutions, and no small amount of conflicting testimony in relation thereto. Some say the solution should be acid; some that it should be neutral; others that it should be made and kept alkaline. Some recommend the use of ammonia; others condemn its use in the bath. There is also a great diversity in the strength of the solutions recommended. Different experimenters set about their investigations in different directions, and arrive at various conclusions.

Notwithstanding the great diversity in the formulæ of different photographers, it is not true, as might be expected, that a difference equally great always exists in the quality of the prints produced. The formulæ may differ through broad limits, while the forces of nature, while not seriously obstructed, work out similar results. It is true, however, that some processes are attended with disadvantages which impair their value, while others possess advantages which recommend their use.

Take, for instance, the silver printing bath given in one of the most recent of modern works (Mr. Anderson's). According to this author the strength of the bath should be from 60 to 80 grains to the ounce, and be made slightly acid with nitric acid. This bath will give first-class prints. There is no question on this point. What then are the objections to it? These are given by the author a little further on. He says. "Add to it an ounce or two of kaolin, and shake it thoroughly, when it may be exposed to the sunlight until next morning; when filtered it will be ready. In a short time, however, the bath turns brown and becomes charged with organic matter, chiefly albumen. The remedy in this case is to boil the bath well away, filter it, and dilute it to its proper strength."

The disadvantages of this bath then are—

1st. The kaolin, which makes a muddy mess, and is a nuisance.

2d. Setting in the sunlight until next morning.

3d. In a short time it turns brown.

4th. Boiling it well away.

These are troubles enough for one little bath; bigger ones in proportion. But they may, all and several, collectively and individually, be dispensed with.

The strength of the printing-solution has been the subject of much comment, and it is one of considerable importance. Although the authors of nearly all the works on photography agree in recommending strong solutions, say from 60 to 100 grains to the ounce, yet it can be demonstrated that a 40-grain bath will produce prints equal in every respect to those produced by stronger solutions.

Now paper requiring a bath of 100 grains should contain, for each unit of surface, two and a half times as much of the soluble chloride as that requiring a 40-grain bath. It follows, then, that each sheet silvered on a 100-grain bath should convert two and a half times as much silver as the 40-grain bath, while the free nitrate of silver withdrawn from the bath by the paper will contain the same proportionate excess. It will not be much out of the way to say that an ounce of silver made into a 40-grain bath will silver two and a half times as many sheets as the same quantity of silver in a 100-grain solution. This is on the supposition that the strength of the salting varies in the same proportion as the silver. The 100-grain bath will give more free nitrate to be washed from the prints, and more unreduced chloride to be removed by the fixing bath. Figure it as you will, it is a matter of no small importance on the score of economy, whether a strong or weak solution is used, *provided*, as is claimed, the weaker solution is *not* used at the expense of some quality of excellence in the resulting picture. But as above intimated, much depends upon the preparation of the paper, for the salting may be such that a 40-grain bath would dissolve part of the albumen, sufficient to impair the brilliancy of the print. Suppose a paper salted with a chloride whose base gives a very deliquescent nitrate which has not the property of coagulating albumen. It is probable that on floating this paper on a 40-grain bath, so much silver would be converted into the chloride from the solution in immediate contact with the surface of the albumen, that the impoverished solution, aided, it may be, by the new nitrate, would dissolve a portion of the albumen. In such case the silver bath must be strengthened, and I remember to have used paper that for the best results required a bath 120 grains strong.

There are several brands of albumenized paper now in market, well known and in general use, that give excellent results with a printing-bath of from 30 to 50 grains to the ounce. With these several qualities of paper I have experimented more particularly and carefully during the last year, with the special purpose of finding, if possible, some definite relation among the various operations concerned in the production of the print. I will now state my method of proceeding, which is the result simply of my experiments and of such information as the various, plentiful, and somewhat contradictory literature

pertaining to the subject affords. You will take it for what it is worth without any admonition to that effect.

The standard printing-bath is prepared as follows:

| | |
|---|---|
| Nitrate of Silver, . . | 8 ounces. |
| Water, . . . . | 80 fluid ounces. |

Dissolve; then add

| | |
|---|---|
| Concentrated Ammonia, . . | 4 drachms. |
| Nitric Acid, C.P., . . . | 4 " |

Make slightly alkaline by the addition, if necessary, of a few drops more of ammonia. It is kept slightly alkaline.

**Silvering the Paper.**—A table somewhat larger than the sheet of paper is covered with velveteen. Upon this the paper is laid, and the albumen surface is briskly rubbed with a bunch of cotton, or, better, with a soft pad covered with silk. The pile of the velvet upon which the paper is laid serves to hold it from slipping. The rubbing prevents the silver solution from drying in drops or tears, which frequently occasion great annoyance. I imagined the effect produced by the rubbing might be due to electricity, and this idea suggested silk as a substitute for the cotton I prefer the silk, but the electrical question remains undetermined. The paper is then rolled up in the form of a scroll, which is held in the left hand and placed upon the solution (previously poured into a pan of suitable size), while the free end is drawn over the surface by the right hand, the unrolling being regulated by the left. This manipulation being skilfully performed, the possibility of the formation of bubbles on the paper is precluded. In warm weather the paper is left in the solution about one minute; in cool weather, two or three minutes. The paper is then lifted slowly from the bath, so that but little of the solution is drawn up by cohesion. Lastly, it is reversed and hung up to dry by the end which was last to leave the bath. Hardly a drop will leave the paper after it is suspended.

**Management of the Silver Solution**—By the following method the solution is maintained in as good condition as when first prepared:

After silvering the paper supposed to be required for the day's use, the solution is left standing in the pan until again wanted. Meanwhile the organic matter acquired from the paper, and which if poured into the bottle would in a short time discolor the solution, rises to the surface, oxidizes, and forms an insoluble scum. When again required for use, the solution is poured into the filter, through which it passes as clear and free from impurities as when first prepared. Another bottle of sufficient capacity, containing clean water for rinsing, with funnel and sponge, is at hand. The pan is rinsed and sponged, the rinsing-water returned to its own bottle. The solution, when filtered, is tested by the argentometer. If too strong, a little of the rinsing-water is added through the filter, and it is ready for use. By this method the solution varies less in strength than by the usual method. The evaporation is sufficient, frequently more than sufficient, to keep up its strength.

Managed in this way, this bath never requires kaolin; never needs to be set in the sun; never turns brown; does not require boiling; dispenses with the use of alcohol, which, when freely used, becomes an expensive luxury. *It positively improves by use* by acquiring nitrates of the bases employed in salting the paper, and may then be used at from 3 to 5 grains less strength than at first.

**Fuming.**—When the paper is thoroughly dry, it is fumed. And although nothing further need be said upon this part of the subject, I will venture to describe my fuming-box,—a little piece of apparatus which I devised several years ago, and is so much of a convenience, it seems to me that others might also find it useful. It consists of a tight box made of matched stuff and well put together, and a drawer. The box is fastened up against the wall in the printing-room, in an inverted position, so that the drawer is opened by sliding downwards, and, of course, shut by sliding up. The drawer is the principal thing in the contrivance. It is wide enough to accommodate a sheet of paper, and is some 6 or 8 inches longer than the sheet—say 30 inches long by 20 inches wide and 5 inches deep. The *top* end of the drawer is omitted, instead of which two pieces of twine are stretched across, from which, by means of clips, the paper is suspended. The sides of the box extend down two feet below and serve as guides for the drawer when let down to put in or take out the paper. A stop is fastened to the wall, upon which the drawer rests when so let down or opened. A spring made of common strap iron is let into the left guide-piece, in such a position that when the drawer is closed it is held by the spring in its place; a slight pressure with the thumb of the left hand allows the drawer to open. A bottle of ammonia is placed on the lower end of the drawer, where it is always at hand for use as occasion requires; and a small glass tumbler, from which the fumes are given off, completes

the arrangement. By this device, the fumes of ammonia, which are lighter than air, are allowed to remain in the fuming-box when the paper is removed; and in all respects the machine is as convenient as possible.

There is a question of some interest relating to the variable strength of the printing-solution required by negatives of different printing qualities. On this subject there seems to be a variety of opinion.

In a work by Hardwich, published fifteen years ago, the following remark occurs: "An exception may be made in case of negatives of great intensity, which are printed most successfully upon a weakly sensitized paper." In an edition by the same author published in 1866, after directing that the bath should be 90 grains strong, he says: "A bath prepared by the above formula is stronger than actually necessary. But it has been found that paper floated on weak solutions is more or less deficient in vigor."

Mr. Anderson says: "The strength of the positive bath must be regulated by the strength of the negative. The stronger the negative, the weaker the bath may be. For a moderately strong negative, the bath may be between 60 and 65 grains to the ounce; very thin and weak negatives require a bath of 70 to 80 grains."

In the July number of the *Philadelphia Photographer*, Mr. Clemons, in his advice to printers, says: "If made too strong, I should use my silver much weaker than if the negatives were made weak."

From all these authorities, it appears to be held that the printer, in order to obtain the best results from a weak negative, should use a stronger bath, and for an overstrong negative he should use a weaker bath, than is required for a negative exactly right in respect to printing qualities—that is, neither too weak nor too strong.

In face of this conclusion, I beg to submit the following experiments. I am using paper that, with a vigorous negative possessing good intensity in the high-lights, with intermediate gradations to transparency in the extreme shadows, will give a vigorous and brilliant print with a silver bath 40 grains strong. We may call these three conditions normal—to wit, the bath at 40 grains, the paper adapted to this bath, and the negative from which, by means of the other two, the perfect result is obtained. The negative supposed is normal absolutely and always; the paper and bath relatively. That is to say, the bath at 40 grains is normal in respect to the paper under experiment. Suppose now we have a weak negative, one which, the paper and bath remaining the same, will give a print in which, when the high-lights and half-tints are sufficiently printed, the shadows are *underprinted*. Reduce the strength of the normal solution to 30 grains by adding 1 part of water to every 3 parts of bath. Print in the shade. The shadows now will print deeper during the time required to print the high-lights and half tints, or, in other words, better contrast will be obtained. In speaking of prints from weak negatives, "*better* contrast" means *more* contrast; in speaking of prints from too strong negatives, the reverse is implied.

If I have given a true account of this experiment, it must follow that a stronger negative will require a stronger bath. A negative is too strong when, with the normal bath, the shadows and half-shadows are sufficiently printed *before* the high-lights and half-tints are sufficiently printed. The drawing in the light parts of the picture is too faintly rendered. The picture is flat and harsh. As before stated, it may be improved by printing on a strong bath.

When the print comes from the printing-frame, it contains several substances which must be removed. There are the violet subchloride, $Ag_2Cl$, the red or yellowish-red suboxide, $Ag_2O$, and the free nitrate, $AgNO_3$. The free nitrate being soluble, is removed by washing; after which the subchloride and unreduced chloride must be removed from the print, as they are capable of further reduction by the light. Who has not wished that the print might be taken from the frame just at the right moment, and so preserved? But that which constitutes its beauty of color at that point is the violet subchloride on a substratum of the red suboxide. If it is now placed in the fixing-bath, the subchloride is dissolved, and the suboxide left. But the *color* in this condition is not satisfactory. So a substance was sought for to supplement this suboxide, and compensate for the loss of the subchloride. The search was successful and the result admirable. Gold came to the aid of its nearest of kin; and here in the toning-bath takes place another of the beautiful transmutations, of which so many are concerned in the production of the photograph. The toning-bath is a solution of gold. We wish to put "apples of gold in our pictures of silver." After washing away the nitrate of silver from the print (for the reason that the nitrate would only cause a useless waste of gold), we place the print in the toning-bath. Now the chloride of silver cannot be toned by gold! Why? Because the chloride of silver will not take any of the chlo-

rine away from the chloride of gold. But the subchloride will take a little; enough to change it from the subchloride, $Ag_2Cl$, to the chloride, AgCl, that is, one atom of chlorine for every atom or molecule of the subchloride. This accounts for the bleaching which usually takes place—the violet subchloride being changed to the chloride, which is white. But, if the bath be acid with hydrochloric acid, the subchloride is quickly changed, and then some of the suboxide gives way, and is converted into the chloride again. Hence the more hydrochloric acid the more bleaching. But the toning takes place upon suboxide of silver, which is being converted into the chloride by the chlorine of the chloride of gold, and the gold takes the place of the silver thus removed.

The chlorine from the gold probably acts in this way: first, it changes the subchloride of silver into the chloride, that is, in the high-lights the print becomes white; then the violet color begins to return on the reddened print, that is, the suboxide is changing into subchloride, and at the same time the gold is depositing and darkening the color. When this is carried to the desired extent, and the print is transferred to the fixing-bath, the first thing that takes place is the removal of the subchloride, that is, the violet color of the print quickly disappears. The toning-bath then should not contain hydrochloric acid. It *must* not contain nitric acid, for this would produce aqua regia, which would dissolve the gold. This is what I suspect takes place when the prints are measly. As before stated, nitric acid is set free in the printing-bath when the paper is silvered. In my practice I intend to keep this solution a little alkaline, and while it is so that disease never makes its appearance. If it happens to make its appearance in the toning-bath, I invariably find the silver bath acid. The trouble might be in the toning-bath itself, if the nitric acid, used in making the chloride of gold, were not disposed of. It might be presumed that fuming the paper would neutralize all the acid derived from the printing-bath, but I believe the measles prove the contrary.

There are various modifications of the gold toning-bath, as now generally used, in all of which the essential features are that the free hydrochloric acid is neutralized, and the toning is performed by the chloride of gold; some slight but unimportant variations in the result being caused by the different agents employed, such as carbonate, tungstate, biborate, phosphate, and acetate of sodium. Nitrate of uranium, chloride of calcium, chloride of lime, carbonate of lime, and magnesium are also sometimes used.

There appears to be some choice in the method of preparing the gold solution, and it is not unlikely that the condition of the printing-bath has much to do with the kind of toning-bath required. If, for example, the printing-bath is acid, the toning-bath may better be alkaline; whereas, if the former be alkaline, it may be only necessary to neutralize the gold solution to obtain the best results.

Having stated my method of silvering the paper, I will now give my treatment of the gold, which I find to be well adapted to the printing process.

TONING BATH—STOCK SOLUTION.

| | |
|---|---|
| Chloride of Gold, . . . | 30 grains. |
| Acetate of Sodium, . . . | 30 " |
| Water, . . . . . | 30 ounces. |

With my prints, I find no difficulty in using it immediately, but prefer not to use it until a few hours after making.

When required for use, I take water sufficient to contain the prints made from four sheets of paper, and to this I add one ounce of the stock solution. This is sufficient to tone four sheets. It will be observed that the stock solution contains one grain of gold for each ounce of water. It follows then that one grain of chloride of gold will tone four sheets of paper. This may be considered too much paper for the amount of gold, seeing that the usual direction prescribes a grain of gold for each sheet. Dr. Vogel, referring to this subject (see *Handbook*, p. 139), says, "We have to calculate 0.06 gramme equal to one grain of gold for every sheet of paper," whereas my regular practice is to tone the number of sheets stated, and I have frequently, for experiment, put as many as *seven* sheets at once into the bath, with only one grain of gold, and have succeeded in toning the whole quantity well and thoroughly.

There are three things to notice in relation to this method of procedure:

*First.* There is no alkali added to this toning-bath at any time.

*Second.* Nothing different from the stock solution is added to the toning-bath when used, to cause precipitation of gold.

*Third.* Placing the whole number of prints, to be toned by a given quantity of gold, in the solution at once insures more complete utilization and equalization of the toning agent through the entire number of prints. The large surface exposed to the action of the toning-bath at once prevents rapid reduction, and there being in the bath nothing but the prints to precipitate the

gold, the toning takes place with deliberation and uniformity.

The rationale of this process is as follows: The chloride of gold usually containing a small portion of hydrochloric acid, part of the acetate of sodium is decomposed, the acetic acid being displaced by the stronger acid, and chloride of sodium formed; thus, $HCl + NaC_2H_3O_2 = NaCl + HC_2H_3O_2$. So the solution then consists of chloride of gold, chloride of sodium, acetate of sodium, and acetic acid. The chloride of gold should contain but a small portion of acid, and then there will be but little acetic acid formed, which does not interfere with the toning.

In a recent number of the *British Journal of Photography* (Feb. 14, 1873), Mr. Sutton condemns the use of the acetate of soda in the gold bath, arguing that it may conduce to the fading of the prints. He says:

"When the print is put into the gold bath there is generally a little free nitrate left in it. This will be converted, by the excess of the acetate of soda, into acetate of silver, which is insoluble, and remains in the paper until it is put into the hyposulphite. The acetic acid is then set free, and will occasion the liberation of sulphur, which will cause the prints to fade." "The same reasoning will apply to the phosphate, borate, tungstate, &c., gold baths. The use of all these salts I regard as a great mistake, and very foolish."

Notwithstanding this strong denunciation of these favorite salts, I like the *acetate* so well that I am unwilling to discontinue its use without examining the cause of alarm a little further.

Is there any such *danger* as claimed by Mr. Sutton? We will waive the charge of foolishness for the present. If the former does not exist the latter may be difficult to sustain.

First, he claims that "when the print is put into the gold bath there is generally a little free nitrate left in it." I believe the usual practice is to wash the prints in several changes of water, and finally in a dilute solution, of common salt, to insure the removal of the last trace of the free nitrate. From the salt water they are removed before toning to another vessel containing an abundance of water. It is not evident that after *this* treatment there is any free nitrate left. If there is, the test, which is present in sufficient quantity (namely, the chloride of sodium removed with the prints from the salting solution), should show its presence. Now it is certainly advisable to remove from the prints all the free nitrate before toning. Nitrate of silver is not wanted in the toning bath. If salting the prints will accomplish the object it cannot be too strongly recommended. But suppose the salting is omitted, and that a little free nitrate remains after washing, as it surely will in this case, then it must be in a very dilute solution. Such a solution of nitrate of silver will not decompose the acetate of sodium. This can be shown by experiment. Dissolve ten grains of acetate of sodium in one drachm of water in a test-tube; into another test-tube, containing one-half drachm of water, add two or three drops of a twenty-grain solution of nitrate of silver, and pour a part or the whole into the acetate. No acetate of silver is formed. Therefore it is not probable that a little free nitrate, that is, such a quantity as is generally left in the prints when put into the gold bath, would be converted into the acetate of silver. But it is not in the gold bath that the mischief is done with which the acetate of sodium is charged. The *cause* originates in the gold bath, the evil is accomplished in the hyposulphite. That is, supposing acetate of silver to be formed in the toning bath, and carried in the prints into the hyposulphite bath, "then the acetic acid is set free, and will occasion the liberation of sulphur," &c. If this is true, it can be easily shown by experiment: Into a test-tube, containing one drachm of the acetate solution used in the former experiment, add a few drops of a twenty-grain solution of nitrate of silver. Acetate of silver will be formed, as may be readily seen. Now add this to a solution of hyposulphite of the strength usually employed for fixing. It very soon disappears, leaving the solution as clear as before; nor will the solution, on standing, exhibit any turbidity to indicate the liberation of sulphur. And this is what might be expected from the fact that the acetate of silver is a monobasic salt like the chloride of silver, and therefore from analogy it might be anticipated that the reaction in the hyposulphite would be similar. The following equation represents what takes place: $AgC_2H_3O_2 + Na_2S_2H_2O_4 = NaC_2H_3O_2 + NaAgS_2H_2O_4$. Acetate of silver added to hyposulphite of sodium is converted by double decomposition into acetate of sodium, and the double hyposulphite of sodium and silver, both of which are soluble. If the "liberation of sulphur" did take place it would be indicated by the milky appearance of the liquid, and the odor of sulphurous acid.

I have thus endeavored to give a full answer to Mr. Sutton's objection to the use of the acetate of sodium in the toning bath, not only on account of the high authority which pertains to that gentleman's writings, but also because a principle is involved which carries, with the ace-

tate, nearly all the other salts commonly used for neutralizing the acid of the gold salt, and that, too, by many of the best photographers in this or any other country. According to my practice, as before stated, all the trouble required in the use of the acetate bath is the preparation of the stock solution. This remains slightly acid, consequently there is no precipitation of gold. It is added in such quantities and at such times as required, whereas, in the use of the carbonate so strongly recommended by Mr. Sutton, whenever the gold is added carbonate of soda should also be added. I have never been able to tone as many prints with a given quantity of gold with the carbonate as with the acetate. The reason of which may be, that when the carbonate is used *all* the gold is precipitated, but when the acetate is used, a portion of that not utilized, although incapable of commencing the toning action, may yet aid the fresh chloride to do more work than it otherwise would.

I will now close my remarks upon the subjects under discussion, leaving the consideration of the remaining subjects pertaining to the photographic print to others.

Mr. Sherman was frequently applauded, and interrupted by queries.

A notice was then read that a meeting would be held in the Hall to consider Mr. J. Shaw's proposition, at 7 o'clock in the evening.

Mr. Wilson: Mr. President, I have also papers here on the subject of printing, toning, and finishing, from Messrs. H. J. Rogers and C. W. Hearn, gentlemen who expected to be present to read them; but as they are not, I move to have them printed in proper place in our proceedings.

Agreed to.

## PRINTING, TONING, ETC.

BY H. J. ROGERS.

The subject of printing, toning, finishing, &c., having been assigned to me to open for discussion in this Convention, I will, therefore, with deference and fraternal respect, submit a few simple and practical suggestions for your investigation, although there is no doubt in my mind that there are many before me who could properly render more complete justice to this subject than can your humble servant.

Manipulators in our art are so widely peculiar and diverse in their respective methods of producing the same general results, that it may perhaps be considered somewhat difficult, or even uncertain, in prescribing the same formulæ, remedies, &c., for all those in certain different experiences, as well as conditions and circumstances. There is a greater or less degree of individuality stamped upon our work, as is noticeable in our penmanship. We may diligently practice the principles of the same system, employing the use of the same paper, ink, and pen, and after all the writing may be essentially all the same style; yet we could easily recognize these original differences of taste which exist in our minds. Undoubtedly it may be said with truth that each operator here, connected with printing and toning, has some established peculiarity of belief, strongly flavored with prejudice, in relation to their theory and practice, and our warmly advocated methods which individualize one from the other; still, however much we may differ or cling to our hard-earned experiences, most happily we all at present seem to be more than ever before impressed with the fact that "in union there is strength."

My method of printing and toning is materially the same as given in the April number of the *Philadelphia Photographer* and the *Bulletin* for May, as far as formulæ are concerned. In my opinion the silver bath should incline to be weak, or at most of moderate strength (rather than strong), allowing more time for the albumen to become impregnated with the requisite amount of silver. The benefits which we may derive from this are a more thorough and a finer and deeper deposit of silver. The prints surely become not only possessed of a greater degree of vigor, brilliancy, and evenness of color and shade, but, what is desired above all, durability.

And then again it seems to me a piece of folly and inconsistency to print four or five shades deeper than is required in the final result, and use equally radical means in the reverse direction to bring the print up to the proper shade. Is this not rough treatment, this printing below the likeness, and then on the other hand employing strong bleaching reagents to effect the desired result? This recalls forcibly to my memory the absurdities which sometimes "stick out" in boyhood, and one in particular, and that was a sliding down-hill occasion which we can all remember, when, not being over and above satisfied with the natural slide to the bottom of the hill, we would turn over on our sleds face down, and with the toe of our boots force the slide a few feet further. Many slide their prints into the shades of oblivion, beyond any possible identity of the subject. Would it not be more conducive to success in obtaining perfect naturalness in pictures to adopt more moderate and delicate tactics in

printing? Print in a diffused light under white or blue muslin put up in shape of an awning. Do not print much below the shade required, and then after the first washing firmly set the color thus far obtained, toning and fixing in weaker solutions, adding all the time necessary for the manipulation. I think it is a matter of absolute impossibility to produce a soft, fine, and exquisitely beautiful print by means of a coarse, harsh, crude agency, either in formula or handling. Remedy this, and you need not apprehend the least trouble from the paper blistering and a thousand and one other defects.

And as regards the final washing of prints, which seems the most effectual, a lively washing and changing in fresh water for an hour or two, or this letting them lay and soak and decompose during the night? If you have no more regard for a hundred gems of sun-painting than you have for so many ham-rinds, and consider them equally repulsive to water, then of course I would not argue against long soaking.

And finally we come to that object of much discussion and diversity of opinion—the hypo bath. I have become settled in my convictions that this bath works better and more vigorously as regards effect each successive time the same bath is used, by adding a small quantity of fresh hypo a few moments before use each day, at the same time making the solution so weak that it will require 20 to 35 minutes to fix the prints thoroughly.

With the formulæ for printing and toning, &c., which have been published, and these few simple questions, I, of course, can only give my individual experience, and most respectfully submit them for what they are worth. I am confident we shall one and all reap an abundant harvest of good-will and information by an interchange of ideas and experiences.

Indeed, most happy am I, my friends, to meet you here fraternally, and when we here separate to return to our homes, may we feel that we have all joined one more endurable link in fraternal friendship, and that the artistic stimulus received at the Buffalo Convention may encourage us onward in the march of progress with the motto "Excelsior" for our beacon-light in the sun-pencilling art. I thank you, ladies and gentlemen, for your kind attention.

## PRINTING, TONING, WASHING, AND FINISHING PHOTOGRAPHS.

BY CHARLES W. HEARN.

Mr. President, Ladies and Gentlemen of the N. P. A.: In preparing this paper on the above subject, for reading at this Convention, I obey the invitation of our worthy President, and of our popular Secretary, Mr. Edward L. Wilson.

Thinking that we all ought to share the labor of advancing the interest in these annual meetings, I have persuaded myself to contribute this paper as my share, after thinking that although it may not do you much good, yet I trust that it will not do you much harm. I will now proceed, hoping that you will overlook my shortcomings at description, &c.

**Printing.**—This tasty and neat department of our art is really as beautiful in its results, to myself at least, as the lighting of the model is to the operator, or the clean, chemical effects to the manipulator, for there is always some neat little idea constantly occurring to the mind of the watchful printer, which for the time being makes him forgetful of his material existence in the workings up of the results of his watchfulness.

Our printing-bath may be so made that the shadows of the negatives, when reproduced upon paper, floated upon such a bath, will bronze up very much before the face is printed, and when it is printed the whole print will appear flat instead of being quite bold, as we might suppose would be the case on account of this bronzing; for it is generally an acknowledged fact that when there is considerable bronzing to the prints, it is owing to the silver being too strong for the temperature, paper, &c.

To be sure, in the generality of cases that is so, but when in connection with flatness to the prints this bronzing is plainly evident, then the other ingredients used in connection with the nitrate of silver in the composition of the bath, has considerable to do with it. For instance, this bronzing up, in the printing, of the properly exposed shadows of the negatives, is very observable in the addition of nitrate of ammonium to the positive silver bath, too much of which will give the case as just described.

The best proportion in the composition of a bath containing this ammonium is an equal quantity of it to that of nitrate of silver, and the strength of each for average cases of temperature, negatives, &c., should not be less than thirty grains, or more than forty grains strong to the ounce of solution.

It is only when the slight shadows of the face, such as those under the eyebrows, eyes, neck, &c., bronzes too much during the printing of the negatives, that the nitrate of ammonium is to be blamed; taking into consideration that those places in the negatives are as they should be, *i. e.*, sufficiently timed, and properly lighted, so that they ought to print better.

To *doctor* such a bath, add of a plain silver solution of such a strength that, besides bringing up the strength of the silver in the bath, it will reduce the strength of the nitrate of ammonium, on account of the ounces of solution added, which contains no nitrate of ammonium, and consequently the number of grains of the ammonium is less than before. I will here describe the making and working of only two different baths, having used them both at different times, for several successive months. The first one of these, and which I will designate as No. 1, is very good indeed, for requiring very little trouble in its management.

*I have used this bath for six or eight months without having it once hardly more than perceptibly discolored, even after a hard day's work.*

It is made as follows:

| | |
|---|---|
| Nitrate of Silver, . . | 40 grains. |
| Distilled Water, . . | 1 ounce. |

To every eighty ounces of solution add of a

| | |
|---|---|
| Sat. Solution of Sal Soda, . | ½ ounce. |

Upon adding the sal soda, the bath will turn creamy in color, let it settle for awhile and then filter the decanted solution. There will be a deposit in the bottle which will take the organic matter from the bath, and render the solution always clear. This deposit, which is the carbonate of silver, should always remain in the bottle, and the solution poured into it after use, then shake up, and it is ready for use again in a very short time. By the use of this bath the solution will always be clear, and the only thing required in its management, is to add solution from a stock to keep it up to some number of ounces, eighty, for instance, and in every few days to add a few drops of the sal soda solution. It is an excellent bath.

No. 2.

| | |
|---|---|
| Nitrate of Silver, . . | 35 grains. |
| " Ammonium, . | 35 " |
| Distilled Water, . . | 1 ounce. |

Filter this solution through filtering-cotton, after having placed a piece of alum about the size of a small filbert in the funnel, and then the solution will take up some of the alum, which it surely needs.

This alum, by the way, is one of the best things that can possibly be used in the bath outside of the silver, as all photographers who have used it, can vouch for. Both it and nitrate of ammonium, besides coagulating the albumen on the surface of the paper, also improve the tone of the unfinished print, giving remarkable richness and beauty to the whole print, thus rendering it an easier thing to obtain finer tones, although still considerable skill is required.

Mr. H. T. Anthony, of New York, has the honor of this discovery.

The clearing up of the positive printing bath is usually done by some one of the following methods:

1st. Permanganate of potash. This is for a time very effective, and is also at the present time very much in vogue.

A solution of permanganate of potash is made by dissolving about ten grains of the permanganate in an ounce of distilled water. When you are ready to clear your bath, add a couple of drops of this solution, at a time, to it, until it has cleared; about six drops being all that is generally required.

The chemical action of this permanganate of potash, which takes place as soon as it is added to the bath, is explained so nicely in Mr. Anderson's excellent work, *The Skylight and the Dark-Room*, that I would advise those, who do not already understand it, to its perusal. It is found on page 143.

2d. "The Gum Camphor Solution." This is made by dissolving one ounce of gum camphor in six ounces of 95 per cent. alcohol. Add a little of this solution at a time to your bath, until it has cleared, shaking well between each addition, and then filter.

This solution is considerably used, and it is a very good one for its purpose. Kaolin is also sometimes used.

When your bath is not in use, always keep it in strong sunlight, and it will greatly improve it.

A very fair way to silver the paper can be learned by those who do not already know it, by the perusal of an article on that subject in the February number of the *Photographic World*, for 1872. A glass rod is much used at the present time for drawing the paper over after silvering, and a book of bibulous paper is made for blotting the surplus solution of the silver off from the paper. I use them both in my daily practice, and think that the paper is decidedly improved by their use.

For a long time I was prejudiced against the use of blotting-paper, and would not even try it, but finally did so, and after a faithful trial I was convinced that the paper for printing is thereby improved, besides having a number of other advantages, which for want of time I will refrain from mentioning. Any brand of paper in the market will work well (for it has done so by others), if you will try it a little while, and not abandon it, if the first attempt does not prove successful. For bath No. 1, I have used

the "Berlin," and for bath No. 2, the Hovey's, both of which are excellent brands. I use altogether the pink paper, because it gives a flesh color to the whites of the portrait.

For printing medallions, see *Mosaics* for 1873, page 52. For arch-tops, the printing is done as in medallion printing, except a different style of mat is required in the making up of them.

As to printing vignettes, always endeavor to have your halos soft, which is accomplished by raising your vignetting arrangement at a greater or less distance from the negative, and covering it with tissue-paper.

Place your block, card-board, Waymouth's vignette papers, or whatever it may be, on to the negative board rightly, and it will print as it should, providing you place it out *face to the strongest sunlight*. Always have good proportion to your vignettes, and study to improve your prints. .

The trimming of the prints is by far one of the most difficult parts of printing, and it should always be done by the most tasty printer in the gallery, and not by a boy who has hardly ever seen a print, with the exception perhaps of the last two or three weeks.

Never have the nose or chin higher than the middle of the print, if the head is of an *ordinary* size, and the print is printed down plain.

Allow a trifle more space on that side of the print towards which the head is turned.

If the print is to be a carte de visite, and the head is very large, it ought to be cut higher in the print than otherwise, so as to obtain plenty of the body to balance the head.

In cutting out a print where the person is leaning on a table, chair, &c., always cut in enough of the thing leaned on, so as to give an air or look of solidity to the base of the print.

Always lay your glass, when you are about to trim the prints, in the same direction as the body is, providing that it is not leaning on a table, for then of course you must represent the idea of leaning, but in the former case, when there is no such idea to be conveyed, then trim, as before said, so that the body will not appear to be leaning too far forward or backwards, and thus give the beholder an idea of falling.

Exercise all of your taste and skill in trimming photographs, for it is no easy thing, and I frequently find that I have need of all the *brains* that I have, to trim them as they should be, said brains at times being severely taxed, I assure you.

**Toning.**—*This*, probably, is the most difficult part of photographic printing, and upon it in a very great measure depends the beauty of the unfinished print, for with proper management of the toning-bath, both mean and flat prints are thereby in comparison rendered bold, when they might have been worse, if considerable care had not been exercised in the toning of such prints. Almost any toning-bath can be worked so as to obtain fine tones, but there are, of course, some baths which are better than others. When in the first place you are hesitating as to what bath to use, think of some bath which has been recommended to you as good, and ask yourself the following questions; note the replies, and thus decide on the merits of the same. Try bath after bath, and then accept the one on the principle of "the best one wins."

Is it simple in construction?

Is it apt to be changeable?

What are the best kinds of tones obtainable by the use of this bath?

Are the tones more beautiful than those of any other bath?

Are there any strong alkalies used in the composition of this bath, in such abundance as to affect the albumen on the paper?

How does this bath tone a weak and flat print?

What are the advantages and disadvantages of this bath?

By following the above many baths can be passed over, and you will probably settle down on the best one, at least according to your ideas of what is required in a toning-bath. For two years I used regularly the bath known by the name of the "Citric Acid Toning-Bath," which is an excellent bath by the way, but it did not give me the *exact* tones I wanted. For the last three months I have been using a bath which I think is excellent, because of the beautiful soft and velvety tones obtained by its use. It answers all of the above questions splendidly. It is very simple in construction, and is in excellent working order in five minutes after it is made.

The most beautiful tones can be obtained with it, the high-lights and half-tints of the face being of a very clear tone, whilst the shadows, draperies, &c., will be of a rich, warm color. As before said, there is always a velvety look to the print, on account of the very fine delicacy of the tone, which is always so much admired, but so very difficult to obtain, as we all have more or less observed in our past experience at toning.

First, in the making of this bath, so that the quantity of chloride of gold used can be ascertained, it will be best to make up a gold solution, say fifteen grains of chloride of gold to fifteen ounces of pure water, thus making a

solution of one grain of chloride of gold to the ounce of water. Now take of the

Chloride of Gold Solution, . . 2 ounces.
Pure Rain Water, . . . . 24 "

Make the above *slightly* alkaline with

Saturated Solution Sal Soda, about 6 or 8 drops.
Chloride of Sodium (common salt),
in weight, . . . . . ½ to 1 ounce.

In making this bath I first put in my gold solution, and then place in the dish where you have placed your gold, a piece of blue litmus-paper, which will immediately turn red. Add the drops of sal soda, and after it has turned blue again put in the requisite amount of water, and last of all your salt. Mix all thoroughly, and let it stand, as before said, about five minutes. Make up nightly, and throw down the gold in the old solution with protosulphate of iron. In toning with this bath, or in fact with any bath, and it should become exhausted, then add the ingredients used in the first place, in *exactly* the same proportion as was needed in the making of it at first. One of the greatest mistakes made in toning is by toning the prints until the draperies, &c., are about the right shade, thus disregarding the face, which is the *principal attraction* of the portrait; and in toning it should always be *the* object of attention to the toner.

With the toning just described I will here give the mode of working, which if followed out will not fail at once to give you most beautiful tones. Supposing the prints to be sufficiently washed and acidized, we will now commence to tone them.

This should be done in a *quite weak* and *even light*, and at a little distance from the window. An idea of the quantity of light required, may be had by bearing in mind that all you wish, is to see *distinctly* and *clearly* without any guessing.

Take a couple of dozen prints, and let them lay in your bath solution, face up, but under the surface, and keep them in motion while in it; the action is as follows: At first the prints will not perceptibly change, but very gradually the high-lights and half-tints of the face will lose their red tint, and will commence to border on the rich purple, and then they will quite quickly arrive at that stage, when they are to be removed to a bath of running water.

This stage, at which the toning is to be discontinued, is perhaps at first a little difficult to determine, but after a very few batches are toned and fixed, you will readily see when the stage has arrived. *Never* take the prints up in your hands to examine them, for you will then surely be deceived, and take them to be undertoned, when by examining them *while lying flat in the dish*, they will appear to be toned plenty.

*The prints are toned when the high-lights and half-tints of the face appear clear, and a little blue when they are lying down in the dish, and examined in a weak light.*

Take them out immediately, even if upon looking at them in a stronger light the shadows and draperies should appear as red as fire, for the prints are toned. For proof, see them when they are fixed. Tone for the lights and half-tints, and let the shadows take care of themselves. The salt in the above bath is the improvement of this bath over the common sal soda bath, and it is by the addition of this salt that such beautiful tones can be obtained. This bath tones a weak print better than any bath that I have ever used, and in case you should happen to overtone any print the tone will be a pretty blue.

The above bath was recommended to Mr. Frank Jewell, Scranton, Pa., by Mr. Hugh O'Neil, of New York, and it was at the gallery of the former gentleman that I first heard and saw the working of it.

As to fixing the prints, do not use the soda solution too strong; one liquid ounce of the saturated solution of hypo to every six ounces of water being plenty strong. To prevent blistering, place them after fixing in salt water, or during the fixing of the prints weaken the strength of the hypo three or four times, and then the density of the liquid will gradually reach that of common water.

**Washing.**—A washing apparatus got up on the siphon plan, and emptying itself every twenty minutes is a very good thing. The sides of a large tank should slant outward as they proceed towards the bottom, and then by having a pipe to run around the tank, suspended about half-way down, but close to the sides of it, you can thus supply yourself with fresh water. This pipe should be perforated with small holes, sending minute streams of water in the same direction, but striking different parts of the surface. On the bottom of this tank evenly distribute about two inches of small pebbles. The water is drawn out of the tank by the siphon, the entrance of which is on the side but close to the bottom of the tank, and at which place there are, of course, no pebbles. By a neat arrangement at this place the water can be drained clean from the tank, without sucking the prints through the orifice. The pebbles should be washed every time before use. By the use of the above arrangement the prints are very thor-

oughly and quickly washed, and on the whole it is a very good way.

**Finishing the Photographs.**—Mount the prints upon the cards, either by means of a strained solution of thin glue or prepared starch, and immediately rub them down with common writing-paper. The dirt-spots on the prints are touched out by means of some water colors, mixed to the proper tone of the prints. A little gum-arabic should be mixed with this color, so as to give the touched-out spots a surface like the rest part of the prints. The rubbing can be done very nicely by means of Weston's rotary burnisher, but can be done very well with almost any press. In using this burnisher avoid so much gloss as to give the prints the appearance of a French toy-box.

Mr. Sherman was again called and questioned.

He said: The paper is laid upon the solution at one end. Suppose this to be the dish. It is supposed to be horizontal, laid upon the silver in this way. Roll the paper. The scroll is held in this way, and is unrolled in that way (indicating).

A Member: I would ask if it is very easy to regulate the unrolling against the end of the pan.

Mr. Sherman: The end of the pan, which is smooth, enables it to be drawn right out in that manner (indicating); the whole sheet is to be drawn out over the solution; there is no formation of bubbles; it is down there in an instant.

This manipulation being skilfully performed, the possibility of bubbles is precluded.

The old idea that it is very important to get the paper off from the solution as quick as possible I do not think important. I believe soluble chloride should be converted into the chloride of silver. I have left the paper on fifteen or twenty minutes in cold weather. I do not think it is favorable to let it soak through the paper. The paper is then slowly lifted from the bath; it is lifted up slowly in this manner (indicating), and when up it is easily thrown together thus (indicating); this end is taken hold of in this manner (indicating), and it is thus hung up.

I do not find it necessary to have any draft through the box, because the gases and fumes of the ammonia mix with the atmosphere, on the principle of the diffusion of the atmosphere, and it is strongly charged with ammonia; the atmosphere being strongly charged in the morning with ammonia, after it has been used the day before.

*Printing Negatives.*—It don't follow from this that similar results can be obtained on the other side; I say that they can be. I do not dispute those who have asserted that a strong negative requires a weak bath, and *vice versâ*, but that can be obtained in this way: there is a certain relation which you get; it throws out, I presume; the same sensitiveness is produced, and a similar result may be obtained when the print comes from the printing-rooms.

Mr. Wilson: I have a paper from Father Snelling which I would like to read, but as our time is growing short, I will print it with the proceedings.

## BEAUTY AND PHOTOGRAPHY.

BY H. H. SNELLING.

What is beauty? and what is the beautiful?

Ask these questions of one hundred different bipeds and you will, undoubtedly, obtain one hundred different answers. There is a man just coming out of a drinking-saloon; ask him, and he will tell you it is "the nicest thing in life," and if you ask him what that is, he will answer a Tom and Jerry, or brandy smash. There is another making his exit from a livery stable; ask him, and he will say, "A finely developed horse or dog." Ask the satisfied husband, and he replies, "That which I love best; my little wife," and yet that wife may be as "homely as sin" in the eyes of others. That pretty little Miss, tripping so lightly along, finds it in her pet canary, and that old maid in her poodle. Pat's "shillalah" is a "beautiful stick," and Hans's pipe is a beautiful meerschaum. And so it goes all around the world.

Even among men of taste disagreement is the rule and not the exception. Some consider beauty the expression of the agreeable; others think it consists in symmetry of form, be it of animal, vegetable, or mineral development, according as their tastes run in either of these directions. Others again

declare it to be the grouping together the harmonies of nature or art; while another class insist that it is the exhibition of strong contrasts in unity, so as to render the object pleasing to the eye and mind. In fact ideas of beauty and the beautiful are as various as the nationalities.

How then shall we treat a subject so diverse in its effect upon the human mind in a manner to please all? "It can't be done, Mr. Speaker," and as it cannot I shall not try, but just give my own thoughts and feelings.

I, firstly, believe in Hogarth's "*line of beauty*," and when I see a form, whether it be man, woman, horse, ox, dog, or any other animal, a vehicle, vase, or other manufacture, a statue or painting, possessing an agreeable blending of this line of beauty, with equally agreeable contrasting and conforming lines, all in perfect harmony, that object strikes me as beautiful. I, therefore, consider beauty to consist of an agreeable combination of the harmonies and contrasts of nature, and when these lines are accompanied by judicious and harmonious coloring, a picture of that object is also beautiful. Taking this as the standard idea of the beautiful, I say, in opposition to some theorists, beauty is in almost every production of nature—in every object, in fact, not unnaturally deformed.

Perfect beauty is not, as some maintain, an ideal conception. It is, on the contrary, abundantly to be found in nature, if we look for it; not only in color, but in form; not only where symmetry and harmony prevail, but where strong contrasts exist. Even in objects, or groups of objects in which parts, where they alone would be homely, perhaps appear deformed, beauty dwells. In the human form each individual part may not be perfection, yet, taken as a whole, the idea beauty may be conveyed to the senses, and exquisite pleasure imparted to the mind. *Per contra*, perfect beauty may be so *adorned* (?) as to look hideous. Were you never in an assembly of beautiful women and looked upon one with inexpressible admiration, and exclaimed *sotto voce*, How beautiful! whom, in ordinary attire, you had before considered simply comely; while another you have almost worshipped in the purlieus of her own parlors for her radiant attractions and brilliant mind has startled you by her commonplace appearance? What has caused these anomalies? Is it because nature has suddenly changed her mind and miraculously re-created these forms and features? Not at all. Both were really lovely and beautiful women of their styles, but dress had wrought the wonderful metamorphosis. With beauty nature had given to the one refined taste for the becoming in dress, while the other possessed not this essential.

In art man has arrived at the beautiful, not by ideal conceptions, but by the study of nature, and the errors of sculpture or painting are the results of vitiated tastes and corrupt minds, and not from defects of nature. As in the case of the adorning of the person, a refined appreciation of our own needs is required to enable us to preserve the beautiful, so the execution of a beautiful statue or painting demands a right appreciation of the harmony of outlines and colors as they exist in nature, as well as of graceful position and symmetry. The fact that the exquisite perfection of the details of the human form as they occur in the sculptures of the Greek and other masters of art, are not found universally among men is not incompatible with the views expressed, because such perfections have been, and may be again, discovered.

To give rules and laws for the realization of the beautiful in art is a work of supererogation, as, even in the portrayal of the human form different individuals require different treatment, and the same subject may be treated by half a dozen genuine artists in as many ways and yet the beautiful be perfectly preserved. Whatever may be the exercises of the mind by which the artist arrives at the conception of the beautiful we know that it must be, in large measure, through the study of nature, not only in the aggregate, but in its minutiæ.

There are those who deny the possibility of attaining the truly beautiful in the works of photography, because, forsooth (as one reason), it copies nature so exactly, and yet some of these very critics and artists have been heard to say, while looking upon the photographic representation of a noble old

tree, How beautiful! What an aid to the artist is such an exquisite copy of nature! Now, if photography can render a representation of an old tree, in its beauty as well as its stateliness, so perfect as to make the photograph itself worthy the study of the artist, surely photography, in the hands of competent men, is capable of developing the beautiful; or, in other words, the photographic picture may have in itself the inherent qualities of the beautiful, and hence convey to the mind of refined taste that sensation of exquisite pleasure alone compatible with the idea of the beautiful. When photography is at fault in this matter we must look to the mind of man for a solution of the cause, and not to nature or the errors of photography.

For example, take some of the copies from the "old master" painters and compare them with the originals, it will be almost incomprehensible how the copyists could produce such daubs with the originals before them; but when we reflect that these copyists are, in general, of the lowest grade of artists, who work, not for reputation, but simply for the dollars, basing their hope of profits solely on the fame of the originals and the ignorance of their customers, our surprise vanishes. So, when we look upon a photographic portrait or landscape, we must expect it to reflect the mind and taste of the photographer, and whatever is reprehensible or commendatory in it lies in a great measure with him, and not with nature, or photography.

Take, for instance, the case spoken of by Dr. Vogel, in his *Handbook*, where the effects of an otherwise beautiful view was destroyed in the photograph by a pig-stye and heap of straw in the foreground, reproduced out of all proportion with the rest of the picture, and which unseemly effect he lays to the charge of unavoidable defects in photography, but which in reality are, in my estimation, owing to the stupidity of the photographer. No man fully conversant with the capacity of his camera and with the requisite taste and discrimination would so place his instrument or choose his ground so badly as to include such deformities in his picture. No object should be brought into the *field of view* of the camera which is sufficiently near the camera to produce the effect spoken of. The well-known fact that distortion is the result when objects approach too near the camera, or within a certain line of demarcation in reference to the focal distance, if observed will remedy such evils. The proper elevation, according to circumstances, of the camera is as essential to success in taking a photograph —whether it be for portrait or view—as its position or point of sight. The beautiful in nature can be represented by photography as well as by the eye of the artist, but photography is not a thinking animal, and therefore must have men to manage it who have ability to think for it and make proper use of their thoughts.

Mr. Lockwood: Mr. President and ladies and gentlemen of the Association, when I left Ripon a week ago I had fully determined to make some optical experiments before this Association, showing up the new theory as to the focal length of colors. As I found out it was going to incur considerable expense to bring the apparatus, I concluded to change my position, so I will give the discovery as it occurred to me; and perhaps it will be more interesting than if I gave the scientific theory, because most of you would not understand the technical terms.

There was another point I regret very much. I shipped from Ripon a set which I called actinic screens, one entered for the gold medal, but I wish to bring the matter before the Association. These things are not patented, and I do not charge for the idea; I wish to bring the things up before the Association. I very seldom speak before an assembly. Through some hitch of the express office I did not get my screens until last evening; therefore, if you have any gold medals to award if I shall have said anything to you, if I have made any discovery, you can award to me the golden medals of opinion. I will leave you to be the judges.

Mr. Lockwood now read his paper as follows:

[Mr. Lockwood's paper is unavoidably omitted, because of its loss in the mail or otherwise. It has not reached us.]

Mr. Lockwood continued: I want to ask you if you wonder so many photographs are spoiled. It is on account of our not understanding the photometry of colors. We must understand how the violet ray is reflected from the face, and the yellow light of the yellow ray. This is seen in many individuals. You will all understand that each one of these rays has a different focal length. I have made a computation that the white light attacks the face ninety-one millions of times. It is so rapid in its course it has all the advantage over the other rays. That is the point; so you can see that it would be the more powerful ray. You take a gentleman who works out of doors; he has a face that reflects light in a peculiar way, and the light would strike his face in different ways, and, according to experience, the lower part of his face would require forty-five seconds to make a good picture, and that is the time you would give it. You want to treat these pictures so that there will be harmony; you want to neutralize the mean distance of this focus.

Now I will carry you back to where I made the first experiment with white ground-glass and a piece of yellow glass. I told you I found a piece of yellow glass reflected a well-defined shadow by placing the yellow glass over the white glass. I told you that the shadows were nearly all of the same density. After I had thought over the matter I thought it was possible to have a collodion that would attack the colors and leave the high-lights out, at least in which the high-lights would not be operated on so much. I gave up the theory that they could not do it, and I went back to my first principles; and my remedy is—and I presume some of you may smile because you ought to take it home and think over it, it is worthy of your attention—my remedy is a homœopathic one.

If you have a man with a yellow face or with a white face, instead of flooding his face with white light, I provide myself with yellow reflectors, and reflect yellow light over his face. That harmonizes the colors, and my theory is to exhibit the darkest color in a man's face, and reflect that light which shall be in proportion to that color, thereby reducing all the rays to a mean focal length. That is true as far as the wave theory is concerned. Now, gentlemen, I think you will see that point.

I disagree with Mr. Pearsall, who spoke last night. He said that a great many pictures were made that were total failures, because they were not representing the individual photographed. Gentlemen, since I have been experimenting upon this little discovery, I have made up my mind, to use an old couplet—

"The fault, dear Brutus, is not in our stars, but is in ourselves that we are underlings."

In other words, we do not know how to handle the science before us. We have not yet got to the bottom of it, and I hope in this Convention each one will do something in a scientific way, because, I assure you, everything is based strictly upon science, and I believe the time is coming when science shall reduce photography to as fine and as certain an art as any other science now known in Christendom.

In the remarks that Mr. Sellstedt, who preceded me, made in reference to the photographing of colors, I have an idea to present to you. I disagree with him also. I have been making some experiments in that line, and although they have not been fully successful, they have been partially so, so much that I feel satisfied in saying that that difficulty can also be remedied, so far as the reflection of solar light and color is concerned, to a greater extent than any of you have thought of. The theory is a similar one. Of course I had to use screens, and this idea has been known all over Christendom, but, gentlemen, I did not make them as I wanted to, because I could not get the proper materials. You know when you come to photograph out in the field the hardest thing to photograph is the green. You know how dense the foliage is in some seasons of the year, with an extreme high-light and a solar atmosphere, to solarize those beautiful parts of the picture before they are capable of being reflected. If you will go home and bring several glasses of great density, and put your glasses in front of your lens and make your photographs through them, you will get some of the

focal lengths. I have made some experiments on water. I am satisfied that in this we have the only solution of this difficulty, and I am willing to be criticized, because I have not worked it for two or three months. I have brought some of the photographs that have been made upon this new principle entirely.

Now, gentlemen, before I show you them I want to say to you plainly that I did not bring those photographs to show what wonderful things I could do in writing, and therefore I tried not to make a great show, in fact, I rather undid myself. I made them as cheaply as I possibly could, because I wished to show you the new theory of pictures which I have on exhibition. They are all labelled, My new theory. Some of you may think that I reflect colored lights on the face. That is not so. I will tell you why. The red and the yellow in your face being received and overcome, the solar light is stronger than any of the reflected rays, rays that would go through upon your face unless I used an intense magic lantern, or something of that kind. If you light your sitter with screens, the yellow light that you reflect upon your screen, not being of the same density as the face, acts as a modifier. You can increase it at will. These experiments will repay you with a great deal of satisfaction.

If you retouch the negative it will reduce the expense of retouching seventy-five per cent.; this is not an idle theory. I have been a practical photographer for twenty years. I know what it is to come up out of the valley and shadow of death, as far as theory is concerned. I have died a good many times.

Mrs. Lockwood, who does the greater part of my retouching, is here, and you can ask her any questions on this theory of retouching you please. The most of my negatives that I have made were retouched in from eight to fifteen minutes, by this new process and theory, and retouched quite enough, if I am any judge. After this session will have concluded—my pictures are here; I brought them as an exponent of the theory, not as a representative of what I can do—and I want you to look at them in such a light. I had purposed, as I said in the first place, to give a scientific exhibition to you, thinking this fundamental lecture or talk would do better as a beginning. I feel very much interested in this subject, and I shall be pleased some time to write an article for the *Philadelphia Photographer*, if Mr. Wilson sees fit to publish it. (Applause.)

Mr. Wilson: I will, gladly, of course.

Mr. Lockwood: I shall be pleased to make diagrams and give you a little more abstruse or scientific exposition of this new theory. In the meantime, before you criticize, I want you to think the matter over well, because I have been thinking it over well for the last two or three years, and I would not like you to criticize these failures. You understand the position, all of you, but we all do not understand the science of chemistry, because it is not in our line. I do not want to give the opinion, because it would tend to clear somebody. I would be grateful if some who understand the theory perfectly would try this new theory. I say it is something which is far superior, as far as the beauty of the printing work is concerned, to anything that has ever been made. If there is anything in this that can be of any use to you, you are welcome to it. There is no patent right upon it. If you will visit the Rink you can see those actinic screens; I will be there, and will be glad to show them to you.

I hope next year you will have some new ideas to add to it. I have been experimenting on collodion, to see which sensitizer would be the best adapted to the purpose, and to the different colors. Perhaps when I come across those ingredients which you have so much of in this State, called brains, I shall find it if I have not got it yet. I believe every photographer who has experimented knows that you cannot use the same sample of collodion for every face, from the fact that every face reflects a different quantity of light and wants a different quality of treatment. Those who photographed these things know how to do it; and I have been more successful since reducing the mean photographic focus, while in my photographic course I have nothing more to say.

Some time during this fall I shall be

pleased to write an article on this subject; in the meantime those who wish to have a copy of my reflectors and screen, if you will write me a letter to Ripon, Wis , and inclose ten cents, to pay the postage and other expenses, I will send you a photograph of them. I think you will like them.

A few photographic friends who have been using them, tell me they would not be without them, and I think you will come to the same conclusion after you have tried them. I will further say there is another idea of throwing the colored light on the face, which can be done by a lamp or by having additional colored glass over the lamp or reflector; this accomplishes the same result at more expense.

THE PRESIDENT: Without waiting for a formal vote from the Association, I am sure you will sustain me, when I take the pleasure as well as the responsibility of thanking Mr. Lockwood, in the name of the Association, for his able paper. (Applause.)

THE PRESIDENT: I wish to give notice that H. L. Bliss will take the annual picture of the Association to-morrow morning at nine o'clock in front of the Rink. Mr. Bliss does not regard the situation as very favorable, but it is the best that practically could be obtained.

I am also requested to say that it has been arranged by some persons present to make an excursion to Niagara to-morrow. I would refer such as propose going to Mr. Nason, who has made the arrangement. We have got almost too many things on hand, and don't know how to do them all. We will do all we can. If you wish to hear any further discussion of the subject we can continue the discussion now.

I should like to hear from Mr. Pearsall.

MR. HESLER: I should like to give notice to photographers going West, either to Chicago or further on, that I would like to meet them here in a body after the close of the meeting to make arrangements for reduced rates.

THE PRESIDENT: A motion to adjourn is now in order.

MR. CLEMONS: Mr. President, by the programme I learn that the subject for discussion is the printing, toning, and finishing of prints. The principal object for which we come here is to study one another's ideas of photography. This is the first time I have arisen since we have assembled this time to speak upon this subject. I can do it. I have nothing written, for I do not want to put you all asleep. I will speak on my subject from an hour and a half to two hours, and I will guarantee that I will make it interesting for you all—that is, on the subject of printing, toning, and finishing of prints, or anything in the art of photography.

I am not in the secret service; I hold no secrets whatever, and all that I know I will impart to my brother photographers from one end of the land to the other. But there is one thing here which has taken up my attention, and I cannot allow it to pass without notice, and that is, our Association has been formed for the object of instruction. I think that all instruction should be free, but within our halls there is a secret process, and that is sold to individuals from one dollar up to one hundred and twenty, which I can prove. Now I am opposed to all such things.

I have many things to say which will be of benefit, but it would be useless to attempt to address you at this late hour. I am in a position which none of you can command. I am nothing but a simple albumenizer, but I am in the hearts of photographers, and if I want anything I can go to them and get it. I don't care whether it is a secret or not, and that secret I will divulge if it is in my power to obtain it, and I will obtain it if I can, and I will go through thick and thin to get it, so that you can have advantage of it at some future time. I will be on hand, I will guarantee.

The way things have been conducted they have interfered with the plans I had laid down, and which I intended to follow. I never wish to deviate from my way.

THE PRESIDENT: Go on, Mr. Clemons.

MR. CLEMONS: I came here with the intention of speaking on a certain subject, but I cannot give the subject justice to-day.

THE PRESIDENT: That is just what I say.

MR. HESLER: If I can be heard five minutes—

THE PRESIDENT: The question is whether we shall continue the discussion or adjourn until to-morrow morning.

Mr. Hesler: Five minutes is all I ask. I do not ask it myself, but a great many have asked me about my toning.

(Calls for the question were heard.)

Mr. Hesler: I can give it in five minutes.

On motion, the Convention adjourned.

*THIRD DAY—EVENING SESSION.*

Thursday Evening, July 17th, 1873.

At St. James's Hall a large body of members of the Association, and others, assembled to hear the lecture on "Lighting the Sitter," by Mr. W. J. Baker; and another on "How to Manage the Lines," by Mr. Edward L. Wilson. A violent thunderstorm delayed the proceedings. Mr. J. W. Black officiated at the lantern and projected the illustrations upon the screen, in his usually perfect style. Mr. Baker proceeded as follows:

## LIGHTING THE SITTER.*

Mr. President, Ladies and Gentlemen: There is no one in this assemblage who could feel more diffidence in attempting to treat on the subject announced than do I, and this for several reasons. In the first place, it is a task of the utmost difficulty to convey artistic ideas of any kind. They are intangible, easily elude the grasp, and always evade the attempt to reduce them to anything more than a generalization. That a picture is good or bad, may be easily seen in a particular instance, but from the examination of any number of works of art, we should fail to deduce specific formulæ that would, with any approximation to certainty, enable us to construct a single faultless composition. A critic may point out this or that defect, and award his praise with some degree of certainty. He may be persuaded that there exists in his mind a type of the beautiful, approximating to the absolute, but to set this forth in words that cannot fail is not possible. So art teachings lack the element of certainty and precision that those of science have. Instead of *facts* we have *taste* as the basis of judgment. And here let me say, that for our present purpose I shall not recognize two kinds of taste, as common expressions indicate. Good taste! The adjective is superfluous. Bad taste! There is no such thing. Taste is—taste, the faculty of discriminating between bad and good, of recognizing and loving the good and of eschewing the evil.

Degrees of taste there may be, but opposing kinds of taste never.

In addition to the difficulty of stating, is that of receiving artistic ideas. They are quite as much, or more, a matter of ocular perception, and of the corresponding interior feeling as of precept. We may be convinced that the law is right, because stated by undebated authority, but even when intellectually apprehended, the law remains a dead letter till it is informed by the discovery of its correspondence, with our own perceptions of the beautiful. So it follows that by the time we are able to apprehend the statement and see its force, we have often discovered for ourselves the principles on which it rests. The clearest statement must fall dead and barren on a mind not opened by culture.

It is a matter of slow growth to work ourselves up to the point of seeing why this and that is so, and we are often able to work artistically, by a kind of instinct, before we can intellectually justify our procedure. In fact it almost seems to be the most important function of artistic laws, to enable us to justify what we have already done, rather than to lead us on to new achievements.

Further, there is the impossibility of saying the least new thing, or of making an original statement or discovery in the field we purpose to traverse to-night. The theme is a trite one, and has been often treated by able minds. All that I have to say you can find clearly and explicitly laid down elsewhere, and I can only hope that this occasion and the special aspects that present themselves to my mind, may reach some who are seeking such an opportunity and who otherwise would remain without it.

I have endeavored to show you that taste is superior to law in art, and more to be depended on; that the law shows the method which taste has used, rather than that taste goes to the law to be told what is open to it.

In photography the point where taste comes most usefully and conspicuously into play is in making the sitting. In none of our operations can it be dispensed with, but here its power begins and culminates. The subject is before us; into the space of a few minutes must be compressed our action, in carrying out what our judgment tells us is most suitable, to each of the

* Mr. Baker has also consented with Mr. Pearsall to supply copies of his illustrations at about the cost of production, for the benefit of those desiring to study them in connection with his lecture. There is much to be learned from them which the necessary haste of a lecture could not permit.

great variety of individual cases that come before us.

In the posing and lighting the sitter the photographer shows himself to be or not to be an artist; and while it is hardly possible to overrate the importance of either section of the task, the study of light and shade is decidedly more abstruse than that of position, and if I fail to elucidate my subject as comprehensively and clearly as our friend and Secretary will his, I trust that you will bear kindly with me while I endeavor to deal with the principles that should guide us in "lighting the sitter."

We will limit ourselves to the consideration of bust pictures, both because they are, and have for some time been, our usual style; and because all the rest of the person, with the draperies and accessories, must in any case be subordinate to the good lighting of the face. If that is accomplished we must in a manner take the rest as it may come, sacrificing, if there is any need, all the inferior portions to the head.

When the large heads called "Berlin cards" were first introduced, there was probably no photographer but found he had something to learn. The first idea was that we had got rid of a great deal of trouble. Awkward limbs and big extremities; ugly dresses of unsuitable shades certainly were left out, but the face was all the more conspicuous, and demanded all the more skill in its treatment to bring out its beauties or to soften its asperities; and many of us can date our first really artistic step from the grapple we made with those difficulties.

We have said that we should to-night confine ourselves to the consideration of bust pictures. Now there are two classes of effects that can be produced on a face, the old-fashioned or broad lighting, similar to that now most in use by painters, and the so-called Rembrandt or shadow effects. In the one case the most of the face is in the light, in the other the illumination is as confined as possible. We have in Nos. 13 (Rembrandt) and 20 (broad light) an example of each kind. You observe that the difference is, that the shadows of one have taken the place of the lights of the other, and *vice versa*. The general features of the plan we must adopt to produce either effect are as simply as possible outlined, when we say that in the one case the camera points from the source of light, in the other is directed towards it. Place a sitter under the light so that somewhat of a side-light effect predominates, let him keep still, while you with a sliding camera take first one side and then the other; do not move the side-screens, or adjust anything that would alter the lighting, and you have the two effects on the same plate, probably neither of them very good, but clearly enough defined to be classed separately as belonging to the two systems.

Here* (No. 2) is a double impression, obtained as described.

In the succeeding illustrations we shall try to make in each, some one defect of the illumination very obvious, and to explain its cause and remedy; we will, of course, deal with those failures and weak points which are most usually met with in average photographs. We shall suppose too that the chemicals are all in perfect order, and that the exposures are just right to give, as nearly as possible, the effect the eye would see on the face of the sitter. For you understand that we are to deal with lighting only, not focussing or developing, or strength of bath, or posing even (except so far as position affects the visible effect of the light), and all improper manipulations must be cast out of our problem. We are to obtain in every case what we see.

Perhaps among beginners there is no more common error than the employment of too much light. The natural instinct of the artistically uneducated mind seems to be to surround the sitter with light, to throw it in on all sides, and as much on one side of the face as on the other. How grave a mistake this is, most likely all of us have discovered, but the probability is just as strong that each operator here has, this very summer, on some bright day found his room too full of light, and produced some such effect as this.

Here is (No. 1)† a poor subject to begin with—a leather color tanned face, faded dull eye, and a light coat; the whole set upon too dark a ground; the picture looks almost as though made in the open air; one can hardly tell where the main body of light comes from; the shadows are so broken with reflections from all sides, the light filling the eye contracts the pupil, and gives a dull fishy effect; the coat might be made of cast-iron as far as texture shows. All the natural unsuitableness of the subject is augmented by the treatment. Too much light, too much side-screen, and yet some people call this picture a "Rem*em*brandt;" for my part I don't want to remember it much.

Here (No. 2) is another, in which the failure

* This illustration is omitted in our publication as of no consequence.

† Also see No. 3, B, No. 5, B, and No. 6, B, as examples of too diffused lighting in different ways.

is made hardly less conspicuous by the agony of a better subject. See how he frowns, and the eye closes, how black the shadows are, and how flat the lights, no half tones, no delicacy.

Here is too much light, but in a different way from before; this is too direct, that too diffuse.*

You may regard these two pictures as types of their kind of failures, producing in exaggeration defects very often seen. By keeping them well in your mind you may be able to trace the type through many milder modifications down to pictures, that while they don't look just right, yet are almost good. Many operators use too much light, well enough knowing it, but pleading that their patrons will have white faces with no shade. This seems to me a mistake. What I find the uneducated object to, is not fine delicate shading, but to harsh, dirty shades, or to price. In looking at samples, at least, they never say of a really soft and roundly shaded face that it is too dark, but that it is too high, and inquire the price of bon-tons.

In Dr. Vogel's *Handbook* he gives four little photographs showing the effect of excess of top, side, and front-light; the last being the well-lighted face by a proper combination of the three. The subject is there treated so exhaustively, that save for the sake of completeness, it would hardly be worth while to enter upon it here. The next four illustrations were obtained, not as were Dr. Vogel's, by altering the arrangement of screens while the subject was stationary, but by moving the subject while the arrangement of the light was not disturbed. And first we will have the face in a proper light, and then show you how a slight variation of pose affects the distribution of the shades. Here (No. 3, A) the principal light comes in at about the angle of 45°, strikes the forehead on the right, makes all that side of the face the most conspicuous, leaving a transparent, well-worked-out shadow on the left, while all the modelling is full of agreeable half tone, showing the shape of the different features very perfectly.

Now the subject lifts her face, turning toward (No. 3, B) the centre of the light. At once how the front-light predominates, and how flat and uninteresting the face becomes; what a loss of modelling!

Again (No. 4, C), our subject bends down, and we see the effect of too much top-light. The eyes sink into deep shadow, the cheeks are hollow, the forehead becomes too prominent, all the projections of the face being exaggerated, and the receding portions unduly diminished.

For the third variation let her bend her head to the left (No 4, D), and the side-light at once predominates; the right of the face becomes flat and chalky, the left black and dirtily shaded; the light is too broad, the shadow too dense. The line that separates these masses is too sharp and marked.

Here are three more pictures showing substantially the same effects, but produced by shifting the place of the subject under the light while she maintained her pose.

In this first (No. 5, A) she was brought out right under the light; you see again an excess of top-light. Next (B), she is placed far back, and it is all front-light. Lastly, she is carried to the right (C), and side-light predominates in a faulty way.

From these experiments we infer that there is a proper point under the light on which to place the sitter, and a pose suitable for that point. Further we may state, that the point and pose will vary with different physiognomies.

This opens a very interesting field of inquiry, but one requiring such extended treatment and illustration that we must pass it by, as our investigations are intended to be of general application.

We have now seen *five* fundamental errors in the management of light for portraiture, whereby the normal presentation of the features is frustrated; the picture varies from artistic limits, becomes confused and repulsive.

There is a sixth error of different source, but as fruitful as any of the others, or even more so.

**The Injudicious Employment of Reflectors.**—This indispensable power has been much abused, both by those who have declaimed against it and practically by those who employ it. Its misuse is perhaps more easy to discover than its exact and proper function.

Run your eye through any album, and of the fifty pictures therein, the chances are, that not one of them but would have been better for less side-screen, though it may be that one or two of them could have been improved by a little more.

When too much light is reflected on the shaded side of the face it prevents the spectator from tracing the direction of the principal illumination, and trivial as this statement may seem to those who have not considered the subject, it involves the most important characteristic of a picture, that of unity. Unity cannot be obtained without breadth, and the quality of breadth is entirely dependent on the eye being able to trace with facility the direction of the illuminating force. The idea is a perfectly natural one. The sun's rays at any given mo-

* So also are Nos. 4, C, B, 5, A, C, and 7, B, examples of too direct or positive lighting.

ment sweep through the entire landscape, casting shadows in but one and the same direction, and this is the type of breadth. It establishes, by association and the analogy of nature, a law in our minds, to which all representations of natural objects should conform; and the simplest form of picture, that containing but one object, as a face, is just as much subject to this law, as the presentation of miles of landscape, with its infinite diversity of objects.

Here, on the one hand (No. 6, A, B), is the properly-lighted subject, the light striking the top of the forehead with the greatest force, the ridge of the nose receives a less amount, the cheek-bone a little less, the round of the chin still less; the retiring portions of the face are duly shaded, the side from the light presenting the deepest shadows. In the second picture everything remains as it was in the first; same arrangement of the skylight, same position of the subject and camera, same time of exposure; but a side-screen has been approached to the shadow side with simultaneous confusion of the play of light and shade, and instead of a well-modelled head there is left only a map of the subject's face, with the different features topographically indicated; one side of the face has as much light as the other, and from the opposing direction. There is no mass of shade; the face is one monotonous blaze of light without variety, no sparkle in the eye, nor elasticity of muscular action in the features to give expression. What was a rich and vigorous portrait is now conformed to the flattest Elizabethan ideal, a face with no dark streaks.

If then the results of a side reflection are so disastrous, should it not be discarded altogether? We think not, and will try to show its proper use, which is to soften the shadows and make them transparent with delicate reflected lights, which while they may oppose the principal light yet have no vigorous contention with it, and are mere echoes of its intensity. These little reflected lights, like the reverberations of a musical sound from the walls of a room, really strengthen and enrich the original tone. Without them the shadows, even if well worked out, become rigid and give a too solid, hard appearance to the head.

The proper effect is often produced without actually employing a white screen, but that is because the walls and objects in the operating-room take its place and supply the reflections. Their influence always is felt, and in bright weather is usually quite sufficient, if the face is placed at a proper angle to the light; unless we are taking a shadow picture, when a regular side-screen is indispensable, probably without exception.

In this illustration (No. 7, a, b) we try to give you an idea of a face with and without the proper reflections. In the one case a screen of black velvet was placed to intercept as much as possible all cross-lights, which might strike the shaded side of the face. On its removal the gain is quite apparent, in breaking up the strong, cast-iron effect of an entirely direct illumination.

The reflected lights, as you see, are found mainly on the edges of the shadows. They are considered of the utmost importance by artists. If any further justification for them is needed it is only necessary to note how like breadth they exist in nature. The darkest point of a rock or tree-trunk is not that farthest from the sun; this receives reflections from other natural objects, which take the place of our side reflectors; but as when we have too much reflection, it is like an illumination by two suns.

Very much allied to the notions of unity by breadth is that of massing the light and shade, keeping each in its separate place, the lights on one side of the face, the shadow on the other. The same illustrations which show the first law exhibit the second. Where a simple object (No. 8), as a cube or a globe, is presented to the sun, we see easily the separation of these masses, sharply divided in the two sides of the cube, graded into each other in the globe; and it is quite as essential to the unity of a composition that the shadows be united into one mass, and the lights into another, as that the direction of illumination should be discoverable and single. As in the other cases the type has its foundations in nature and the laws of the mind, and obtains in complex as well as in simple forms. If our globe were at all rough or irregular, it would follow that the grading of the masses must correspond. The human head is approximately an irregular sphere, and we find the masses of light and shade it presents broken and varied.

Commencing with an example of massing too sharply defined (No. 4, D, and No. 5, C), we show one agreeably blended (No. 3, A, No. 6, A, and No. 7, A), and pass to another in which the principle is ignored (No. 3, B, No. 4, C, No. 5, A, B, and No. 6, B), and we might say of them, too much side-light, too much front-light, too much top-light, and this about right.

These masses should be opposed, balanced, and united. They are opposed by falling on opposite sides of the face, balanced by such equality of power as shall strike the beholder as

being necessary to the elegant presentation of the particular aspect of the subject, and united by subtle grades of half lights, half tone, and half shadows. Any one of our six fundamental errors destroys one or the other mass, prevents their balance and unity. When these errors are avoided, we obtain the masses naturally without especial effort, and more or less agreeably distributed as our subject allows.

We are now able to make in artistic phraseology the distinction between shadow pictures and the old style of lighting. In the former the mass of shadow is the largest, in the latter the mass of light, but the laws that command balance, opposition, and unity are the same, and as imperious in the one case as in the other.

The law of massing is by no means confined to the head. The background should present a mass by itself sustaining those of the head, and by sustaining being in unity with them, and also enforcing the other idea of breadth, continuing or commencing the discoverable direction of the light, thus carrying the sweep of light through the whole picture.

To do this the background should be graded. A few years ago we prided ourselves on being able to produce a perfectly even, flat, monotonous background. If it was darker on one side than on the other something was amiss, and if one of the pictures, now so common, with an elegantly graded ground, had been shown us, nine out of ten photographers would have pronounced it wrong, the other would have looked doubtingly at it, hesitating to confess the pleasure he might have felt. To such extent had precedent and pride in mechanical dexterity blinded us, so far removed were we from the sympathy with nature, which comes only by long study and converse with her. The background, while in general tone considerably below the face, and in one mass, should have its variety, and the idea of contrast would lead it to place its dark side opposite the light side of the face (No. 3, A, No. 6, A, and others), and *vice versa*. This also conforms to the idea of breadth, and enables us to continue tracing the direction of the light, which striking the top of the forehead, sifting down over the minor portions of the face, interrupted by the shadows on the retiring surface, glows again on the background. Another very beautiful effect is the anticipation of light ere it reaches the face (No. 9), and fading, dying away, as it falls downward to the ground. This evolves a very delicate and spiritual feeling in the beholder. It is perhaps allied to the halo which old painters have placed round the head of sacred subjects. It, equally with the other method, assists the tracing of the direction of the light, gives as much or more breadth, and being more difficult of production is fortunately not so usual and hackneyed. There are many modifications and combinations of these effects possible. I have not been able to prepare illustrations of them, but they will be easy of discovery and application when the full force of these two shall have been digested.

While grading and variety are essential on the background, a sharp grade or abrupt break that would divide it into two or more masses (No. 10) is not admissible. This effect is very bad; while it gives variety and contrast it destroys the unity, that a soft, gradual focussing of the light enhances.

The drapery too should be presented in a mass by itself. We are considering, you know, busts only. In a sweep of full dress a light overskirt or waist and dark underskirt, or the contrary, may come in with good effect, but in a bust the dress should be more homogeneous in mass. It is very difficult even to cross a white dress with a dark lace shawl and make no harsh line that awkwardly divides the dress into two masses, leaving one a white spot. The light silk ties now much in vogue, on dark dresses, are very objectionable, and generally come out disagreeably for the same reasons. Dresses of contrasting stripes or checks, or figures of any kind, are under the same ban.

More especially, if possible, to be eschewed are those dresses which present a mass of the same tone with your background; if to accommodate such a drapery you darken or lighten the ground (as in No. 1), it comes into false relations with the face, though to modify it as much as possible in this direction without making the fault too conspicuous (and there are allowable limits), is all you can do, unless you can provide a different drapery on the spot or persuade the sitter to come again.

The dress should give a mass either decidedly above or below that of the background. If above, care should be taken that it does not overweigh the light mass of the face, and sink the most important part of the picture into insignificance. With care almost any white drapery can be used, and particularly with the shadow picture gives beautiful effects. Turning the shoulders from the light, shielding the dress from the light by an opaque screen, subduing the general illumination, are very effective means for producing softness and securing detail in white drapery.

Care must be taken that the bust is not so placed as to divide, by the effect of the light, the drapery in two masses (No. 17), one dark, the

other light. The effect is as disagreeable as that of two masses in the background. The example was obtained, as you would guess, by turning one shoulder violently from the light, so that the whole front of the bust is in the shadow, making the dark mass, while the shoulder and arm that take the light form the light mass.

We have now indicated in a general manner the principles that must govern us in producing our effects. To briefly recapitulate, they are, to employ a soft but not too diffused an illumination, combining the proper proportions of front, top, and side-light, to soften and break the edges of the shadows with delicate reflected lights, to define the distribution of light and shade by keeping them in masses, to secure breadth by making the direction of the light perspicuous.

If we accomplish this we shall have a picture in which artistic intention will be manifest. The parts of the picture will fall into their positions of relative importance. Each part supported by the other parts performing its own function in producing the general harmony, and however far it be from technical perfection, the picture will be pervaded with a charm that sharpness and clean brilliant chemical effects will alone fail to produce.

Yet it is quite possible that when we have apparently submitted to our laws, a careful scrutiny will discover defects, and to a critical eye serious ones. The perfect photograph has probably not yet been produced.

It is in the interior drawing or keeping that the best photographs are yet very defective. Do not misunderstand me. We will grant you a perfect non-distorting lens. That each feature shall be in its correct place, by measure on the flat surface of the picture, but the difficulty is that some points continually seem to come too near the spectator; the cheek-bone, for instance, catches too much light, and seems to thrust itself out a foot or two beyond the rest of the face. These and similar defects arise from a light admitted from a wrong angle.

*The angle of incidence being equal to the angle of reflection*, this simple rule of optics will often enable us to judge from what point the excess of light comes.

Run an imaginary line from the camera to the point that is over-illuminated (No. 12), consider what angle this line makes with the particular feature, then run another imaginary line up to the skylight, having the same angle with the same feature, and it will point out with tolerable accuracy the source of error. You can readily see that following out this analysis it must have been too much top-light (No. 13) towards the right that thrust out this cheek-bone so savagely. Here (No. 14) is a distorted jaw, that by the same process is traced to overplus of low side-light.

I will not weary you to point out farther examples of this class of defect; you only need to train your eye to find plenty of them.

But before closing I would bring to your minds the importance of mingling the principles now before you with your daily practice. How is this to be done? Not without assiduous effort. We must become and remain students. Each failure must be used as a stepping stone on which to rise to higher ground. A part of each day at the commencement might with good advantage be set aside for practice with a selected model. Conduct at first for yourself the experiments we have placed before you; make a set of similar prints, label them, and keep them by you. Examine your daily work and classify its defects by the type of such models. When you see a print of great excellence, or a peculiar effect, endeavor to find out by experiment the means that produced it, and note them. Make a study of effects in different lights, artificial light, the light of a room; when any of these seem good, try for them in the operating-room. In making such experiments be careful that you obtain as accurately as possible the effect that the eye sees. There will always be a great divergence, but be sure that you come as near as you can.

Do not let yourself be a mere imitator, and lose your own individuality. In this way you are in danger of cultivating faults, for if you start out to make pictures like so and so's, you may make them like his bad ones, or may be misled by a reputation above merit.

Rather seek to form in your own mind a type of beauty, the approximation to which will stamp all your work with the seal of your individual purpose. Be true to yourself. Admit no half work; make it your first object to please yourself, or rather to gratify your artistic instincts, and the pleasing your customers a secondary consideration. There is always a conflict between taste and ignorance; carry it on as courteously as you may, but yield no jot. In time you will be supported by those who really can discern, whose opinion is received by many who do not judge for themselves.

When you find that the public have faith in you, keep faith with yourself and them by doing always your best.

"Joy is the object of art," not a base joy in smoothness and prettiness, which enervates and palsies the mind, but a noble joy arising from

the consciousness of a worthy effort, from the stimulation of all the powers of the mind, from results which are sure to coincide with the eternal laws and harmonies of the universe, and which make those laws more perceptible, intelligible, and satisfying.

Mr. Baker was frequently applauded, and his illustrations were splendidly adapted to his remarks. The pity is that those interested could not have a longer time to study them together with Mr. Baker's excellent remarks. Such things will teach even the wisest of photographers. His lecture is one calculated to do much good, and all who would improve will study it most carefully.

As soon as Mr. Baker had finished, Mr. Wilson proceeded with his subject, as follows:

## HOW TO MANAGE THE LINES.*

Ladies and Gentlemen: You have had the difficulty of imparting and of receiving *art instruction* so fully explained in the instructive and eloquent lecture which you have just heard, that I need not detain you to further demonstrate that point.

Nothing but an earnest desire to lead you toward a branch of study which you *must* take up if you would keep pace with the growing art which you represent, could induce me in this public manner to even attempt to instruct you in the great principles which should govern you in the management of your sitter. For I am quite sure, that if I live to be three years older, and have the time to read over this address, that I shall be heartily abashed at what I am saying to you to-night, and wonder how I could ever have been induced to say it. The reason is, that I also am a mere student of the principles of art, and I hope to know so much more about them three years hence, that I shall regret that I ever attempted to explain them to any one with such a faint understanding of them myself.

And yet, knowing that my audience is in the main alike ignorant with me, I will gladly rehearse before you what I have learned concerning *the management of the lines*, thus adding one more link to the chain which has been welded for you by our friends Messrs. Pearsall and Baker.

If I can interest you for a short time, and render you the least service, I shall be the better able to bear the chagrin which I am sure will follow.

What the photographer of to-day most needs is the *educated eye*. He has attained such *sleight of hand* that he is able to manipulate the most obstreperous chemicals, and produce chemical effects that should satisfy the most craving. I have only to refer you to the really *wonderful* collection of photographs in our fifth annual exhibition to verify this assertion. But withal, in examining those beautiful results, the trained eye observes mistakes and blunders in another direction which I am sure would not be allowed if you also, who exhibit them, possessed a knowledge of art principles, and eyes educated to detect any transgression of those principles. The study of these is *of vital importance* to you. You should cultivate the habit of seeing what passes before you, and if you see that which is beautiful, you should be able to explain to yourself *why* it is beautiful.

Go with me to the Exhibition Hall for a moment again. Step over here into this alcove. Do you notice what a *majestic sweep*, so to speak, characterizes the work of the man whose pictures hang before you? Do you not *feel* that there is a *something* about his work which impresses you favorably, and yet, for the life of you, you cannot explain what it is?

Now turn you about, and see what a contrast! Here is work equally attractive, possessing the same power of mystification over you, hard to explain. There is a *gentle go* about it which you like, so different from the other, yet equally fascinating. Now we step across the Rink, and we have other work—chemically all we could desire—the "light and shade" fully up to Mr. Baker's standard, and yet there is *something* wrong which mystifies you as much as the beauties of the others. The figures seem to be wilted and to hang helpless and spiritless, with an absolute lack of sentiment and feeling so far as position is concerned.

Now, what is the cause of all these differences? *It is in the management of the lines!* The work of each master is impressed with his individuality, and we can almost read his character in his work. We know what he thought when he was making it, what he desired to accomplish, and how far he succeeded.

Let us then proceed to investigate this matter, and see if we can understand more fully the mystery which has so often bewildered us.

* Copies of the illustrations used by Mr. Wilson in his lecture—except a few unnecessary ones, simple drawings—may be obtained by those desiring to study them with the lecture. See notice in Specialties.

You have observed that all objects partake of the form of the square, the circle, or the pyramid (1), or of one or more of them combined. The next drawing (2) presents only a feeble illustration of the various figures which may be made up of the three great forms already mentioned. (3) In this beautiful engraving you will notice how the figures seem to be *soaring* through the air, and how we may detect even here the great fundamental forms just alluded to. A beautiful study too in lighting: but I overstep my purpose if I touch on that subject. (4) The same characteristics are found here also in most beautiful variety. (5) You have doubtless observed the lines of the human face, how a slight change of position changes them to the camera; but it is of the lines of the figure that I more specially wish to allude to. Returning to our subject proper, then (6) as a further example, witness the great Pyramid and the wondrous Sphinx of Egypt; how vividly they present to us these several forms in part or in whole. (7) All lines again are more or less horizontal or vertical, or what is a combination of the two, diagonal. Again, we have straight lines and wavy lines, as shown in the figure, the one giving the idea of dignity and repose, and the other of uncertainty and motion. (8) Witness the contrast in the view of the leaning tower of Pisa, and of the old cathedral where Galileo studied out the problem of the pendulum; the former giving us the idea of motion, and the latter that of quiet and repose. In further proof of this we have but to refer to the thousand works of nature which surround us on all sides. Need we go further than the awe-inspiring Niagara, whose roar we may almost hear at this moment, and where we may find lines *un*manageable of all sizes and of forms?

In the management of lines there are three broad principles which we must not forget, *i. e.*, *Harmony*, *Unity*, and *Balance*. By means of the last we give proper strength and solidity to our picture; by the second we unite the parts one with the other, and by the first we are enabled to tell the story of the picture, and to complete it. By the scattering of the rays of sunshine, by means of the distant misty clouds, we are given most beautifully colored sunsets, but the scattering of the lines of a picture irritates the æsthetic eye, and destroys all pleasure in the composition (9 and 10). Witness the examples now upon the screen, pictures absolutely void of all purpose or feeling or arrangement.

Again, we have *minor* principles, such as *subordination*, *repetition*, and *variety*, all of which I shall explain presently.

And, since all objects partake of one or more of the three great forms alluded to, the forms of composition of the figure are usually the angular or diagonal, the pyramidal, and the circular, or of two or more of these combined. Then we have for our study in these, *internal* lines and *external* lines.

In bringing these forms of composition to your attention, do not allow me to lead you to suppose that it is desirable for you to slavishly compel yourself to make every picture you produce to conform to any precise rule. I merely wish you to understand and appreciate them so that when arranging your compositions you will be just as sensitive to any ungraceful line or incongruous accessory as you are, my good friends, to the most trifling change in your chemicals. (11) In the figure before you we have examples of the first form of composition to which I have alluded to,—the *angular*. Here the greater part of the lines are directed diagonally. We see it in the single line, in the clouds, in the coast and marine view, and in the groups of figures. How beautifully varied they are, too, every line being full of grace, uniting most winningly one figure with another, and every curve or bend having a corresponding curve or bend in the opposite direction, thus maintaining the most perfect balance. (12) Another illustration, from nature, will show you how this form of composition may be obeyed even in outdoor work. Imagine, if you can, a better position for the camera to take this combination of the works of nature and of man, embodying all varieties of line and full of beauty, than the spot chosen by our artist. (13) We have an engraving here which is too beautiful an example of lines to pass over them. You with trained eyes will notice that we have in it various forms of composition, and unity, balance, repetition,—all the elements of an artistic picture, and yet how natural! But we need not leave the studio for studies in this direction. Here we have some further examples, actual portraits, and therefore, the better to show you what you may yourselves accomplish. (14) This is not a carefully posed picture, yet it approaches our form, and I exhibit it that you may practice your eyes upon it and compare it with those which follow. (15) Here we have a group of boys, apparently arranged with little care, yet you observe our principle carefully carried out. (16) Here, also, we may understand the intent of the artist, and how careful he has been to balance the lines of the dress by the use of the cushion. The variety of lines here is also beautiful, making up for the

rather bad lines of the dress. (17) Here we have a most beautiful example of diagonal composition, the lines of the arms opposing those of the dress, and the accessories withal giving beautiful harmony and variety. (18) The same remarks apply to this picture. (19) The next is similar in style; the arms are somewhat changed, and hardly for the better, yet the variety is even more pleasing. (20) Here we have a remarkably fine example; the figure as full of graceful lines as it can be, made more vivid by contrast with the upright lines of the furniture and accessories. We have a story told too. Remove the letter from the hands of the figure and we destroy the harmony and unity of the whole. It tells no story. (21) We now have a more exquisite example even than any of the others. Here we have a story told us which we cannot mistake—a wistful maiden has read her *billet-doux*, despondingly cast it down upon the chair, and resting her head upon the secretary, gives us the most perfect example of the principles I have tried to explain—of harmony, balance, unity, and diagonal composition, as it will be my pleasure to show you.

(22) We now proceed to the next form of composition, the pyramidal. In many respects it resembles the angular form, the only difference being that while the angular form may, and often does, contain within itself many of the pyramidal parts, yet the angular predominates, and *vice versa*. Three-fourths of the single portraits partake of this form, and I hope to gain by its study now the better appreciation on your part of where and in what manner to introduce contrasting or complementary lines. In arranging groups, this form will often be found most useful, and I would again call your attention to the very great importance of having gracefully flowing lines either internally or in that which constitutes the leading outline. Again I say, I do not advocate anything like a close proximity to this form, but just as you may detect the air in the tenderly varied musical strain, so should you be able to see design in the varied lines of the compositions of this form, and understand the motive of the artist. While a graceful outline is obtained, do not overlook, but be very careful in arranging the internal lines. Every part should have care. No part is trivial. The folds of the dress, the position of the accessories, all should be studied. And whether a single figure or a group, have variety in the flow of the leading outline. If a group, a turn of the head, or of the figure of one in opposition to that of the others should be looked after. (23) As examples we give you the drawings, and will follow with some portraits. Three of our engravings are from works of Sir Thomas Lawrence, admirable studies of pose and of line composition. The fourth is badly engraved from a photograph by Mr. William Notman of Montreal, to whom I am indebted for many of my splendid illustrations. (24) We have an approach to this form of composition here, but the lines are very repulsive, exaggerating the height of the figure, and causing but little pleasure to look at it, (25) In this the lines are better, but from the head to the waist observe what a length of line, only made worse by the introduction of the umbrella. (26) Here we have a much more graceful flow of lines, but still they are hard and ungraceful, and a subject dressed so tryingly as this one should never be taken in a standing pose. (27) How much more grace we find here. The drapery is full of beauty in its arrangement, and the opposing lines obtained by means of the draped chair are very appropriate. The line where the light joins the dark, however, should have been broken up, and the arms posed differently so as not to form such a square. But we must proceed with our subject proper. (28) We have here a very ordinary example, and yet extraordinary for its ugliness. Do not imitate it when you can help it. There is more opportunity to make a picture by posing a figure (29) in this way. You see the difference and the increased beauty gained by showing less head and more figure. How simple and easy the pose, and yet how graceful and beautiful. (30) Another fine example here, full of beautiful lines internal and external, the head opposing the arms, and the latter the dress. How very fine. I hope you can all see with me the beauties of these pictures. (31) A less conscientious care is shown here, yet we see the intent of the artist, and the picture is full of artistic merit. (32) To make this more of a pyramidal than a diagonal composition the lines of the accessories are used to oppose that of the figure, and it is capitally done. The arms, too, and the hands are carefully disposed. (33) The same may be said of this, although so much care has not been bestowed upon it. (34) Here we have a most enchanting picture, where the careful placing of a stand and a chair has secured the full intent of the artist. (35) A sweet little group of two young girls follows, magnificent in all its details. You must see them. Time is wanting to point them out. (36) The studious care given to the lines of the picture by artists will be observed in this picture. True, it is one you would hardly be called upon to repeat; but it is an example which you may study with great profit

so far as artistic principles are involved. Aside from that I shall not say anything about principles. (37) Here is a pyramidal composition of the strictest sort. The principal outlines give us one, while we have another in the oldest child seated, and yet another in the youngest child, and a third in the one standing. And yet how beautiful, and easy, and graceful in every respect!

I trust I am not tiring you. We now proceed with a brief explanation of our third form of composition, the *circular*. (38) We have here one of the grandest works of architecture in the world, and although built ages ago, and now partly in ruins, it is annually visited by thousands, that they may admire its beautiful and wonderful proportions. It is the Coliseum at Rome. Its circular form is one of its chief attractions, and it is abounding in curves and circles, pleasant to the eye. In everything circles are most pleasing to the eye, because the natural formation of that organ causes it to accommodate itself more quickly to such forms than to the square or angular. For this reason the gradual flowing and curved lines in a picture are so pleasing, as we have before seen.

Circular composition proper, however, is only available in portraiture in arranging groups, some examples of which I shall show you. First, a few hints on the arrangement of groups. It is pleasantest to have each group to tell a story, and that story should be well told. The figures should be linked to each other harmoniously, and the parts assigned to each be natural and appropriate; the general outline should be pleasant and graceful, and the grouping should afford opportunity for a judicious display of light and shade. The lines of the group and the light should both be made to point to the principal figure or figures. A double swing-back camera is a necessity for such work.

The few examples which I am about to show you of this form of composition are from the studio of Mr. William Notman, of Montreal, to whom I am indebted for much that I know about lines, and who stands our peer in this class of work. (39) We have here a group of snow-shoers, evidently making ready for a tramp. The composition approaches the circular, yet we may detect other forms in it, as here and here (40). The same remarks apply to our next—a similar group. (41) A charming example is now presented to us. You are at once fascinated with the scene. I will not agree, gentlemen, that it is all owing to the fact that the figures are females instead of males. It is because of the beautiful flowing *lines* of the female dress. We have here two various examples of the other forms of composition. (42) Here likewise we have a charming group, or rather a series of circles or other forms in one scene. On each side we have a circle, in the centre a pyramid, and all about us angles and curves sparkle in beautiful harmony. (43) An example of genuine circular composition, however, we withhold until the last. How decidedly a circle, how studiously arranged, and yet how full of forms of all classes. It embodies all the lessons I have tried to make plain to you, and its beauty and excellence are owing to the fact that the skilful artist who made it *knew how to manage the lines*.*

Mr. Wilson's illustrations were mostly of subjects as finely posed as he could secure from famed photographers, but owing to the lateness of the hour he was obliged to hurry them, and, of course, his lecture was not as well understood as he wishes it may be. He abbreviated it also, the evening being hot and the audience tired with the labors of the day. Such lectures doubtless do much good, and it is hoped they will be read over at your leisure.

*FOURTH DAY—MORNING SESSION.*

FRIDAY, July 18th, 1873.

THE PRESIDENT: The first thing in order is deferred business.

MR. WILSON: The report of the Executive Committee, laid over, is one matter and there are two or three others. One is a photographic institute, another one is the subject of life members, another is that of raising dues, or making an assessment to pay the debts of the Association. These now all come up, and if there is any one who has anything to say, they can say it now.

I would state in reference to the photographic institute, that last year I was appointed a committee of one to memorialize Congress for an appropriation. I did that through one of our Congressmen in Pennsylvania, A. C. Harmer, Esq. The bill was read and passed to the Committee on Appropriations. It will now have to be brought up again.

* In the illustrations offered for sale, Nos. 1, 5, 6, 7, 8, 9, 10, 22, 28, and 38 are omitted, because they are familiar to our readers and unnecessary.

I should like to have your ideas on what should be done. The object of the scheme is to establish a school, where we can send young men and young women, to be instructed in the photographic art; where they can come and receive instruction in all the branches. I think if we can get this appropriation from Congress, that we can get just as much more from other sources, and thus establish it. I think there will be enough interest in the matter to discuss it for a few minutes at least; and then you can give us some suggestions as to how to follow it up.

Mr. Thorp can probably give us some ideas on it.

THE PRESIDENT: Mr. Thorp, if he is present, will be kind enough to give us some ideas on the photographic institute.

MR. WILSON: I should be happy if some committee might have charge of the matter for another year, for the reason that I do not like to act upon any committee alone. If there is no motion before the house, and they do not take enough interest in the matter to discuss it, I move that it be dropped.

THE PRESIDENT: Will you take any action in regard to the photographic institute, gentlemen?

MR. WEBSTER: It is very unfortunate for us who are sitting back here, that we did not hear the remarks made by Mr. Wilson; consequently those who did hear, know what to say.

A MEMBER: Will Mr. Wilson repeat his remarks?

MR. WILSON: There are plenty of seats in front; if the gentlemen will only sit up nearer they will hear; and it will be a great deal better for both of us.

THE PRESIDENT: I hope as far as possible, that the front seats will be reserved for the ladies.

MR. WILSON then repeated his remarks, and said: I do hope to hear some expression of feeling in the matter, and to know what that committee ought to do; and that a larger committee should be appointed with full authority to act when the time comes. The object of the photographic institute is to instruct others in the science of photography, and all its branches. To have a regular academy, so that you can send all your sons and daughters, or go yourselves, and receive full, thorough, scientific, and proper instruction. The great object ahead, that we most all look for, is the progress and improvement in photography.

It seems to me that this is a step in the right direction. Why should not photographers have such an institute, as well as doctors, dentists, and members of other professions? Surely none need it more than we do.

MR. WEBSTER: I move that this report be received, and that the business be continued with the committee.

A MEMBER: I second the motion.

MR. WILSON: I amend that motion by moving that Mr. F. Thorp, of Washington, D. C., be appointed on that committee as a special officer to intercede in this matter for the Association, and give him special charge or special direction of the matter—any way you choose, so as to give him special authority and power in the matter to act.

MR. WEBSTER: I second the motion.

THE PRESIDENT: The motion is now before you. You may speak to that.

MR. THORP: Mr. President and gentlemen of the Association, I have tried, in the time intervening since yesterday and this morning, to lay aside entirely any personal feelings in this matter, and consider it only in reference to the interests of this Association. Therefore what I am about to say I believe will be entirely dispassionate, and I believe I will leave my own personal feelings out of it. I shall endeavor to do so.

In my opinion, this project is one which in importance overreaches everything else which has been before the Association for the past two years. It is the only way in which I can see a solution of this difficulty of apprenticeship—a solution that will ever satisfy us, or one that we shall adopt in regard to apprenticeship. It can only be temporary, and a temporary relief from the grievances that we have endured, and in a great many other ways not mentioned now.

I consider this the most important project we have had before us. Viewing it in that

light, I came here to this Convention with a well-organized and systematic plan for accomplishing this purpose. Probably wisely you have concluded not to make any arrangements that I have asked for. They defeated my plan entirely. I acquiesce in your decision. Now I ask you as a convention to let this matter rest for another year. You are not ready for it yet; you do not understand the importance of it, and you do not appreciate it, and therefore your effort must necessarily fail, because you will not give it such support as it needs. I have reluctantly arrived at this conclusion, and I feel it strongly. And for the interests of this Association I hope you will not make this attempt this year, because a failure will be worse than no attempt at all.

At the best, it is a stupendous job to get this appropriation. It is not one that appeals to the public sentiment of the country sufficiently strong to secure its passage, which could only have been done by personal solicitation of the members of Congress themselves, and you have concluded not to adopt the only plan that I can work under with any degree of confidence of success to accomplish this.

Having done this, I thought it better, and hope you will pass upon it, and let it go by for another year. Take time to consider it, and come here prepared either to drop it altogether or to work in earnest to accomplish it, and lay aside any other little petty matter that you may have in hand for this one cause. It is worth trying for, and if it is worth trying for, it is worth dropping almost everything else, and going in as a body and working for it with all our strength.

We should not ask him to go into the front of the battle unprepared. Let us give him a start, and give him all the advantages necessary for its accomplishment. I think it would be unwise, as I say, to do otherwise. I say, let us lay aside personal feeling in this matter. Men would naturally feel just a little personal grievance at having their plans rejected, and their wishes not consulted in the matter at all. And now I care nothing for that. I only say that for the interest of the Association I believe it better to postpone this matter until we are prepared for it, because it seems to me that it must certainly fail, and it was a question of doubt anyhow whether it could be accomplished or not.

But now we need the whole strength of the Association to go into the fight. Now, under the present circumstances, it would be almost certain defeat, and I cannot see any reasonable prospect of success. If I could, I would most willingly do the work, and lay aside my own plans for some plan that is better. But no plan has been offered, and no one suggests itself to my mind. I tried earnestly to think of one that would answer in place of the one proposed, and yet I cannot see any possibility of accomplishing it.

But, as I said before, I will lay aside all personal feelings, and take hold of the matter. But I do not like to take hold of anything that is sure to be defeated. And I will assure you that when you are ready to have it accomplished, I am ready to do all I can. I always have done so. It is a matter of considerable importance to the Association. I laid aside my own business to attend to it, and I spent three weeks to get foreign photographs admitted free of duty. I will always do what I can when I can, when I can see a reasonable prospect of success. But I am sorry to say I cannot see it now.

THE PRESIDENT: The present question is on additions to the committee.

MR. WEBSTER: I understand that Mr. Thorp declines serving. That is my understanding of it. I think that we are ready to act the very moment we get hungry, and we are hungry now; we are hungry for the institute. Let us build it while we are hungry.

*Now* is the time we want it. We do not want this coal of fire in Washington to go out. We want to fan it into a flame, and get it into a glowing blaze.

THE PRESIDENT: I hope everybody has laid aside personal feeling; and I hope that committee will be continued, and that Mr. Thorp will serve upon it.

MR. BAKER: There are probably very few of us who have any idea of the amount

of labor which it takes to get a bill or an act passed by Congress.

This is one of those bills in which hardly anybody or any members of Congress feel any interest in protecting, or aiding, or serving in any way.

On the contrary, they are more apt to be a little opposed to it because it is an expense, and an appropriation, the good of which the people at large, at least, will not see; and their constituents at home are apt to find fault with them; and it will need a vast amount of personal influence with every member of Congress to get this thing through. And Mr. Thorp is there, where he is well able to judge of what success might attend any such effort. And he has given us his opinion that we could not have success this year.

I think we had better take his advice, and let the matter lay quietly until the thing has ripened, so that we can bring such a force upon Congress that we cannot be defeated. Defeat now would be disastrous. It would be a defeat for a third time, and it might be a total failure. I therefore move that Mr. Thorp be added to the committee, and the committee be instructed to do what they can, but not to force the thing.

Mr. Chute: I would like to inquire how this matter stands. It has been explained perhaps, but I did not hear it, and I do not understand just what has been done. What is the adverse decision that Mr. Thorp has alluded to?

The President: Mr. Thorp made a proposition to the Convention which has not been acted upon.

Mr. Chute: What committee is he to be added to?

The President: A committee to petition Congress to appropriate $30,000 for an institute. We do not think we can get the money now. When we try, we want to be sure to get it.

Mr. Wilson: I do hope the matter will not be allowed to grow cold now we have started it. It seems to me it will certainly be disastrous if the amendment is carried; and hence I call for the original resolution. If I have to work alone I will do so, so as to keep it alive the coming year.

Mr. Collins: I do not think we have a member or representative in Washington, or president, or vice-president, but what would like to have a good photograph of himself or of his friend, and would think more of it than he would of an exceedingly poor tintype. If they do, I do not think they are fit to hold their position.

Mr. Thorp: I do not like to consume the time of the Convention. I wish to be understood in this matter, in this light, that for the last year I have been engaged in some good hard work for the institution. I do not propose ever to cease to do that work; but, if you wish me to use my efforts in this matter, is it not due to me and to your own interest that my manner of working shall be consulted? I believe now, under the present condition of affairs, that it is better not to bring it directly before Congress.

The President: Let the committee act judiciously.

Mr. Thorp: I am not willing to take an important place on a committee that is sure to meet defeat. I am in favor of a representative committee, and of doing the work thoroughly and well.

The President: Let me put you on the committee, and you will find how it will go pretty quick.

Mr. Thorp: I think the best thing we can do is to create public sentiment in favor of this object. The Senate being in its nature a permanent body, let us bring our influence to bear upon the House of Representatives in this matter. The House of Representatives, where this matter originated, changes once in two years. The fortieth Congress commenced the 4th of March last. The first session will convene on the first Monday in December. I think we had better work upon the feelings of these men and not bring it directly before Congress until the second session of Congress.

Mr. Webster: I rise to a point of order. In all due respect, I do not think my motion is understood at all, even by Mr. Thorp.

My motion was that the report given in by Mr. Wilson, the committee, be received, and that this subject in hand be continued in its present hands.

THE PRESIDENT: Then there was an amendment.

MR. WEBSTER: The amendment was that Mr. Thorp be added to the committee, which undoubtedly will be carried unless he says he will not positively serve. When that committee come before us with their report then they can have it taken up and discussed, but let us not discuss it now.

MR. WILSON: Mr. Thorp's acceptance of a position on this committee does not necessitate his doing more than to watch and wait this year; but as he seems unwilling to act on the committee, I withdraw my amendment in order that he be excused. I now call for the original question.

THE PRESIDENT: Will the person seconding the amendment also consent to the withdrawal? Mr. Chute, did you second Mr. Wilson's amendment?

MR. CHUTE: I did.

THE PRESIDENT: Mr. Wilson withdraws it, will you also consent?

MR. CHUTE: Yes, sir.

MR. THORP: I understand the original question is now before the house?

THE PRESIDENT: Yes, sir, it is now before the house.

MR. THORP: I have one word to say about it. I hope, if this committee is continued, that they will be instructed not to have the bill introduced at the first session of the next Congress.

MR. BAKER: Do you object to serving on this committee, personally?

MR. THORP: I will answer that in a very few words. While I will say that if the bill is presented under the present circumstances its defeat is sure, therefore, for the sake of the success of the project, I must act under favorable circumstances; but it is not before the house now. I would hope that the committee would see the propriety of not presenting it at this next session, for at the second session there would be a much better chance for success. We will then be better organized for it. If it comes before the coming session of Congress, and is defeated, you cannot introduce it at the next session.

MR. SOUTHWORTH: I hope when we appoint a committee on a matter that we know nothing about, and a matter which he has been pursuing a year, that we shall avoid the position of instructing him.

MR. WILSON: I would say to those who are here present, that if a circular reaches them any time during the year, asking them to appeal to their representative in Congress in behalf of this matter, that they will make it a personal matter, and do all they can for it, and if they feel that way now, I hope they will vote for this question. I will do all I can.

The question was then agreed to.

THE PRESIDENT: The matter is in the charge of Mr. Wilson, who is the committee.

The next business in order will be on the subject of life membership. I wish to say a few words on life membership. There are a great many who could pay $25 for a life membership, who would not feel it, and the money would help the Association. Almost every year we have been called upon in advance for funds to carry on the exhibitions. The exhibition this year I do hope will come out a little better. Still, if there is any gentleman who is disposed to join with the life members, we shall be glad to add his name to the list.

I would say I meant to be the first name down there, but Mr. Clemons is the first. He got the start of me. You have got to get up pretty spry to get the start of him.

The next matter to be brought before this body is the subject of raising the dues.

There has been a proposition, there is no motion before us now, to raise the dues, that we may have more money to meet the wants of the Association.

What is your pleasure as to this matter? If there is any motion, I will hear it.

MR. SOUTHWORTH: I would inquire, Mr. President, whether we are in debt.

MR. WILSON: We have been in debt over two years. There are bills of two years' standing that have never been paid.

MR. SOUTHWORTH: How much?

MR. WILSON: In reality, three thousand dollars, but there are pressing bills of two, or three, or four hundred dollars, I cannot tell which. I cannot tell exactly how much we are in debt. The Treasurer is not here. I know that there is an advertising debt which has not been paid, and a bill of $350 which has not been paid. The expenses of

the exhibition, we do not know what they will be, whether we will come out fully paid or not, but the Executive Committee have been cramped when they desired to undertake certain measures, on account of the want of money.

I do not know how it stands.

MR. CARBUTT: I think the dues are really insignificant as compared with the amount of valuable information imparted to the members from year to year, as there are many new photographers, and there are but few societies throughout the country in which the annual dues are as low as ours are, and yet, as Mr. Pearsall remarked in regard to the organization of societies, how much more do we learn at this meeting than at all the other societies put together?

Thus we have found by experience that our dues are not sufficient to carry out the objects of its existence. I move you, sir, that the dues be doubled; that the employers pay four dollars, and the employés two dollars.

I am willing to add my share to it, and pay again my dues for the coming year.

A MEMBER: I second the motion.

MR. SOUTHWORTH: Mr. President, I may say I was one who was in favor last year of this very idea of paying our debts. I do not know but that I got to be obnoxious to some of the officers on account of my persistent advocacy of that one point, and perhaps it is not safe to say much about it this year. I do not know but I had better make a contribution for my part, and let it rest there. That would be a very fair way. Now I wish to say I am positively ashamed to be in debt or have this Association in debt. I have money enough to raise my share, if not, I will pay what I have and raise money to get back to Boston. I do not care how it is done, let us get out of debt.

MR. COLLINS: I think it is impossible to run any kind of association or anything else successfully and be always in debt. I think if it is to be run at all, it should be run so as to pay. Any institution will go along a great deal smoother with money in the treasury than it will with a debt to be paid. I am like Mr. Southworth, I am willing to pay the debt, and am willing to give five dollars to help pay it.

MR. THORP: If the Association needs money individually I am willing to double my dues or make a voluntary contribution, but it is my firm belief that under the present organization the amount of dues and the initiation fees of this Association keeps out a large proportion of the photographers who would be the most benefitted by it. If we increase the dues, the number of delinquents would be increased, and I do not believe the amount of money would be increased in the treasury. If we increase the dues we decrease the number of new members; gentlemen would be less anxious to come in, and members who are not now able to pay for the journals and for the membership would be cut out entirely. They would borrow the journal and get the information. Let all those who are willing and patriotic make a contribution, or repay their dues; I am willing to do it.

MR. COLLINS: Do I understand that this is a proposition for the raising of the initiation fee as well as the dues?

THE PRESIDENT: No, sir; that is not the motion.

MR. COLLINS: I think we had better put the initiation fee at five dollars for employers and four dollars for employés.

MR. PEARSALL: It seems to me the dues of this Convention are very small indeed. It seems hardly possible that many here, making tintypes, could make payments of a dollar a year. Our local association has an initiation fee of five dollars, and a yearly fee of three dollars, and no distinction made between employers and employés. We had no difficulty to fill our Association; we have been organized only five months. We do this simply to improve ourselves. The giving of one dollar a year would be a small amount to join any association; one would spend that in twenty-four hours for cigars.

MR. SOUTHWORTH: This is really an important subject to our life and prosperity, absolutely so; our life and prosperity do depend upon it just as exactly as the fifty cents or a dollar a day would be to the life of the one you employ. I should be glad to bring every photographer in the United

States under the influence of this Association. I take it that our meetings are conducted and managed for the Association about as well as can be. It has improved this year on last year, and better last year than it was the year before. We commenced with exhibiting our pictures; we thought the exhibition would bring us in some profit, but instead of profit we have had to pay for the halls and for the labor. Instead of making a profit we have made a loss. I suppose the reason of that is that there is no Barnum among us. If we had some humbug who could get up an exhibition not worth anything; but we are not humbugs. If we had stayed in Boston three weeks longer we would have made a profit, but it was in the hot weather, and we could not get anybody to go in to see our pictures. They would say they are only photographs.

Now we have got to support the Society by our dues. I read in the *Photographer* that we were not going to ask anything at the door, but I think that would be unadvisable. When we go to Chicago next year I would like to know who is there who would give us three hundred dollars for our seats?

MR BAKER: I will say that, the weather permitting, we will take a thousand dollars at the door here in Buffalo. We have over four hundred dollars, and the rain last night knocked us out of three hundred dollars. If this weather would only clear off, we could take five hundred dollars to-night.

MR. SOUTHWORTH: I was only referring to the past. I was judging the future by the past, and perhaps I drew it a little too strong.

Now, sir, I would be glad to bring all those who are members, who are called the poor members of the Association, but how shall we do it? Shall we invite them to put their names upon our books? If they do, they cannot come here and attend. Of these members, very few of them can come, and those who can come have not much money. If you can make money in your daguerreotype rooms to pay the reasonable expenses which are incurred, I can live in this city for one dollar and a half a day, and live just as well as I want to, and you can put that by in your business, and if you cannot you can go and work on the railroad until you get five dollars, and then come in. (Applause.)

To succeed in this art requires the best men, men of genius, and education, and cultivation from childhood to old age, until you can see that it is worth anything. If you find that you have made a mistake, go and do something else. For one I should think the dues should be increased. Instead of being a dollar a year, it ought to be ten. Every one of you ought to pay ten dollars. I ought to pay ten. What is the reason we do not? We all ought to pay ten dollars. It is a small matter, a very small matter. You could not go into any of the respectable literary societies or scientific associations without paying down ten dollars, thirty dollars, or one hundred dollars; but you do not want that. What is ten dollars? If you cannot earn that in any gallery, why you can save it. If you want the benefit of the Society, you can earn it. I had no idea that we were three thousand dollars in arrears. There are men enough here to pay our debt here before we leave this place. Let us leave money enough in our treasury to pay our debts somehow. I see no way but to raise our dues. The only next way would be to have a committee to see how much it would be to settle the debts all up, and let the dues stand. That would be a tax on the Association, and it would be a perfectly fair way. I understand perfectly well that there are a thousand members who would feel that it was a terrible tax.

I know how hard it is to collect old debts. I remember how we used to collect postage in California. We had to carry the man's letter around for a week to get the postage, after we got the letter, but it must be done. Mr. President, it would rejoice my heart if the debt was paid, and I never expect to receive one cent of money from the Association in the world. I do not see how this Association is going to help me more than it is other men. I should be heartily glad if every member who came into the Association paid ten dollars. Let it be four and five.

Why I am remarking in this way is to try and make you want to do something, and do that something now. Make a sac-

rifice. We know how it is when a society builds a church; they get in debt, it hangs and hangs, and by and by they have a good meeting and take it off. Now that is the case with us. We can just as well do it now as at any other time. Every single cent of the debt should be paid that rests upon us.

MR. BINGHAM: I would like to make a motion.

THE PRESIDENT: There is a motion before the house; you make it as an amendment to that motion.

MR. BINGHAM: There is no motion before the house.

THE PRESIDENT: Yes, sir, there is a motion to raise the dues.

MR. BINGHAM: I make an amendment to that motion, that the Executive Committee instruct the Secretary to issue a circular to the members of the Association calling for a voluntary assessment, and making it entirely voluntary with them whether they comply or not. I do not think any of the members of the Association would be so small as not to send something. Some may send five dollars, some only one or two, it all helps us: I think that is the best way to get at it. I make that as an amendment.

The amendment was seconded by several.

MR. SOUTHWORTH: I rise to speak on that amendment. Last year I made the best effort I could to get contributions from the members of the Association. It was a very important matter, and I made the very best effort I could make, and put in ten dollars myself. I raised $150. If there is any member here that will take it in his hands to raise five hundred dollars, I will for one, make the free offer that he shall have all he raises over that. I have been through the mill and I understand it.

Now, gentlemen, you have to say what is best, and what is fair, and what is right. Then all of us who want to make individual contributions, can do so, and the amount from me shall be as large as I can make it individually, if we try to raise it individually. I would say we are now owing $3000; when you have raised all you can, we shall still owe $2800.

MR. CARBUTT: I am glad to see my motion is so ably supported by my old friend Southworth. Certainly I concur with the amendment. I think the increase in the dues of the employers can be paid by them by their saving less than ten cents a day, and by the employés, by saving less than five cents a day; double your dues, and you can easily prepare yourselves to meet it. You can all save ten cents a day, and at the end of the year you will not feel it. I hope my original motion will be carried, and that all those persons who have the disposition so to do, will voluntarily step up to the Treasurer's desk and pay their dues over again; that is a little thing that we can all do and not feel any the worse for it, and then let the next annual dues be for the employers, four dollars, and for the employés, two dollars.

MR. SOUTHWORTH: Don't let us have any idea of waiting until next year. Congress can go and vote themselves back pay. (Applause.) Let us here as an Association go and vote ourselves back debts. (Cries of Hear! hear!) Congress has gone into the foulest disgrace. I think every man of them is disgraced forever. The man who makes an effort to pay his debts, if he can only half pay them, stands just as high as he can stand in the scale of honesty, as if he had done his best not to contract dishonest debt, and had failed entirely. Let us do our best to pay off our debts, and pay them now, and not wait until next year.

MR. BARBER: I wish to say that probably I represent the smallest gallery, or one of the smallest that is represented in the Convention, and I indorse Mr. Southworth's remarks, in regard to the raising of the dues, and think myself that they ought to be raised. Still I think he is belittling us in our little galleries. I do not believe we who run the little galleries intend to shirk the expenses of the Association. I remark, mine is a small gallery, but I can afford to come here and bring my wife to the Association and pay my expenses, and am also willing to raise the dues to four dollars a year. I do not believe in assessments, or in any other means for the raising of the money to support this Association, therefore, I shall support the original resolution.

MR. COLLINS: I should like to put an amendment to Mr. Carbutt's resolution.

THE PRESIDENT: Please do not put an amendment to the amendment, if you don't find it necessary to do so.

MR. COLLINS: Put it at five dollars. I don't think that there is a member in the house poorer than I am, and yet I would rather pay fifty dollars, and pawn my clothes, than not meet with the Association. That is me, exactly. I went to Philadelphia; borrowed every cent of the money. It cost me forty-two dollars; and when I came back my wife scolded me; but I must say it was worth a thousand dollars to me. I should have gone to St. Louis, but was turned out of doors just before I started. I came here, and I tried to persuade my wife to come. I would not miss what I have learned here for half my gallery; I think it is worth $2500. And this will give you an idea what the Association is worth to the poor man. I would add, my gallery has been closed ten days to enable me to come here.

MR. HALL: I have heard it said that if palaces were sold for ten cents, there were always some that could not buy the stepping-stone, and you will find that in every class and in every profession. There are some who would not do it if they could, and there has been an argument very often used for keeping up the price of photographs. They say that the people—even if the pictures are not any better—will pay high prices, and that they always value them according to the price, and that it is sure to bring you the better class of custom.

Now the matter of two or three or four dollars' admittance to this Association is but a very small matter compared with the expense of the coming to and going from the place to any one. Now, if we make the dues large enough to carry this Association on in a swimming and respectable way, and keep out of debt, I think that every member that pays the larger amount will appreciate it better, will think more of it, and it will be likely perhaps to increase the popularity of it, and bring about perhaps a better class; although we have got about as good a class of members as can be found.

MR. COPELAND: I wish to say, Mr. President, that I do not think we can depend upon voluntary contributions, therefore I oppose the amendment. It is better to make it a pleasure to the people to pay it. Give them some interest in paying it; they will then feel it worth while. Let us make it three, four, five, or ten, dollars. Let us raise the debt, as Mr. Southworth says; let us tax ourselves back; and it seems to me we can and will raise money in that way.

MR. SOUTHWORTH: I would like a little statistical information as to how many of the members have paid their dues since this meeting here; about how many are there present who have paid.

THE PRESIDENT: Mr. Moore will tell you.

MR. MOORE: I can hardly give you the information that you want. I have not gone over the number of names. I think only those who have paid, and there are a number who have not paid. I notice the face of one person I have seen at every meeting, and I have been looking over the list in vain to find whether he has given me his name.

MR. SOUTHWORTH: If we knew how many were present, and about how much it was necessary to raise, we could make some estimate and we could have some system about it. I should be very glad myself to have the admission fee five dollars, and then, Mr. President, I don't know but what I should be very glad to open the doors to photographers to join us. Let them come in at the door at a quarter of a dollar. I do not know but I would do it. I presume there are a great many who receive all the benefit from the meetings of this Association who do not pay us anything. But let them all come.

I just want to get at some definite report so as to have a fair understanding whether four or five dollars would do. The five dollars would be better. I think, on this point, the Executive Committee could give us some information. I believe the spirit is to pay it, to pay whatever is fair. I believe the Secretary, President, or some of the members of the Executive Committee could give us some information.

MR. BINGHAM: I made my amendment thinking it would raise the most money.

It has raised a great deal of discussion; I therefore withdraw my amendment.

The second also withdrew his second.

Mr. Collins: I wish to make an amendment to the motion, to have the employers pay five dollars and the employés five.

The President: That is a new motion; I cannot entertain that now.

Mr. Moore: I think I have received a little over $300. That is all the Treasurer has. As to what we will owe I do not know. I think I have paid out $100, and that with the $50 you owe me would make $150 left. I think I had better secure that.

The President: When this Association was organized in Boston there was a very decided feeling there in favor of having the admission fee five dollars and the dues something about the same. I was a strong advocate, and I think it was carried by my advocating it, that we make the admission only two dollars and the employés just half that. I wanted to put it at the very lowest cent, so that every man connected with photography should feel himself able to unite with us. These amounts were certainly small enough to satisfy any reasonable man.

Now if it is found, after five years' experience, that these amounts are not enough, then I am an advocate for raising the dues. I do not wish any man to be driven out on account of the dues being raised, nor any man kept out on account of the admission fee. We have had five years' experience, and if we have gained anything by the Association, and if it is worth anything, let us make it self-supporting.

The motion of Mr. Carbutt, making the dues four dollars for employers and two dollars for employés, was then agreed to.

Mr. Southworth: Is that made to begin now?

The President: I will call on Mr. Carbutt for information as to whether it is to cover the past year.

Mr. Carbutt: It is for the coming year,—from now.

The President: It is for the future. I do not see that we can compel any one who has paid his dues to come and pay back.

Mr. Thorp: I see the difficulty; most of us have paid our dues; and if we were to pass a resolution to pay them over, it would look like compulsion; but I certainly do hope that those who feel so disposed will voluntarily do so.

We cannot compel them, of course, to pay the increased dues for the past year.

The President: If that is not understood I will make it so. All will be expected and asked to pay by the Permanent Secretary.

Mr. Southworth: But that does not pay our debt.

Mr. Thorp: In order to get the sense of this meeting, I move that the life memberships be taken up and disposed of. And further, that the published matter of this Association be copyrighted, and furnished to no one out of the Association; for if we have to pay a high price for it, we should have the exclusive right to it.

The President: After that motion is seconded, I will have a few words to say.

Mr. Rhoads: I am entirely opposed to this kind of action. As all of our proceedings are to be published by Mr. Wilson in the *Philadelphia Photographer* it is not right that it should be confined only to members of this Association. I think that others should have the benefit of it as well as ourselves.

Mr. Collins: We have several workers who belong to the Association who said that it was not necessary to come here, because they could get all the information in the *Philadelphia Photographer*, and it would cost them nothing.

A Member: It seems to me that a man has the right to publish anything he pleases; if our proceedings are hard to get hold of, it would be different. But it is impossible to prevent others from getting hold of them. If one journal does not publish them another will, consequently, it seems to me, that it is better as it is.

Mr. Clark: I cannot see any better way to remedy this. If you wish to keep those who are not members of the Association out of it, then print the proceedings with the formulæ of this Association in pamphlet form, and send one to every member with the *Photographer*, and the publications in that journal, only mentioning the meeting

and giving the proceedings without the formulæ that are stated in this meeting. And in that way it would induce many who are not members of the Association to become members. I think that if it was published privately, and sent to each paying member of the Association, that it would be better than having the whole published in the *Photographer*, as has been heretofore done.

MR. SOUTHWORTH: Here is a new question sprung upon us, but it cannot be that we are going to reduce ourselves to such an illiberal position as to listen to such a motion as that for a moment.

MR. RHOADS: The extra expense of printing the proceedings of this Convention in the *Philadelphia Photographer* is over $500; this includes a very large sum for the extra matter printed on account of the proceedings of this Association.

If the formulæ were printed separately from the journal they would cost the Association a great deal more money than they are able to pay. I think it is a serious mistake. I think it is our duty to diffuse knowledge, so that others can see the benefits to be derived from our Association and come in and join us.

A MEMBER: I should think if there is any worth in the Association we ought to have the benefit of it.

THE PRESIDENT: The motion is that the proceedings of this Convention be copyrighted and furnished only to members.

Are you ready for the question?

MR HALL: I had thought that this Association was organized for the diffusion of knowledge, and that we were to go against secrecy.

Now, are we going to resolve ourselves, after five years, into a secret society?

THE PRESIDENT: I shall call for the vote without further debate.

The question was not agreed to.

MR. HARRIS: I would like to inquire if there is nothing in the constitution or by-laws by which a member who neglects to pay can be expelled from the Association?

THE PRESIDENT: We have expelled two hundred this year.

A MEMBER: You had better expel two hundred more if they don't pay.

THE PRESIDENT: It is a very little thing, and a man who does not think enough of it to pay his dues we do not want in the Association.

A MEMBER: You did not put the question on the amendment.

THE PRESIDENT: No, sir; the amendment was withdrawn, and we voted on the original question.

I am called on to appoint a Committee on the Progress of Photography, and would, therefore, appoint Mr. W. J. Baker Chairman, with Dr. H. Vogel and Mr. G. Wharton Simpson as corresponding members.

I may add that the trustees of the Relief Fund which commenced its operations this year have gone to work, and that considerable money has been donated this year; it is for the benefit of disabled photographers. It was voted that its action should not commence till the Association had been in existence for five years. That time is now about up, and the Relief Fund will soon commence its operations.

The next thing before us is printing, toning, &c. Mr. Clemons did not get started hardly, and we want him to get a fresh start and go straight along.

MR. CLEMONS: I will speak on printing, toning, and finishing.

MR. HARRIS: I do not wish to occupy the time of this Convention a moment. I have a suggestion to make, which I think will express the feelings of nine-tenths of the members of this Convention.

Now, I have only come here to learn, and I can say truly that I have learned a great deal; but I have not learned many things that I wish to learn, and for the very reason that many of the subjects that have been taken up by the gentlemen who have presented them to the Association, have occupied so much time that there was no chance to ask any questions, and questions that many of us who have been but a short time in the business would like answered. I, who have been but a year and a half in the business find that there are a great many things I would like to ask. Little things not touched upon. I feel that it is so with many other members of the Association. Now, for one, I do not know but that this would be the

best plan. If we can only ask Mr. Clemons the questions we can get what information we want. He told us yesterday he would occupy us for two hours, and interest us; I have no doubt he can do it. Perhaps it would be better if he would state the manner of his proceedings in silvering and toning, &c, and allow us an opportunity of questioning him; then we shall perhaps some of us get some information.

THE PRESIDENT: That is just what he is going to do; you have hit the nail on the head. I have learned something this session. I have learned that another year I am going to bring it down to ten and fifteen minutes speeches, if possible; and am going to have them just as practical as it is possible to make them. With the assistance of our friend and Local Secretary, next year, we shall *do* photography right before you, if it is nothing more than to clean the glass.

Mr. Clemons is before you, and I guarantee that he is ready to be catechized to any reasonable extent.

MR. CLEMONS: Mr. President, we will have a "love feast" (laughter) and an experience meeting; and, of course, you know that you are to assist.

I do not wish to do all the talking myself.

A VOICE: Louder.

MR. CLEMONS: You will have it loud enough after a bit.

A MEMBER: We want to hear it all, and make it straight.

MR. CLEMONS: Yesterday afternoon was set apart for printing, toning, and finishing of prints; and my name was down for that day.

I was very sorry that I could not embrace the opportunity to speak, for many who wished to hear me have departed. They had paid their money to come here and hear me, and receive their instruction in toning and finishing of prints.

The man who works in the printing department is the man of the establishment. He is the man of the times, and he should have brains. He must have a clear head. The man who produces the negative, is not the man if he cannot produce the best negative that is going; for he may produce the best negative that is going, and the printer can spoil every print that comes from it. But I will leave that; you have all as good judgment on that point as I have.

The time is coming, and coming very fast, when the printer will obtain as much for his services as the operator. It has already come in Philadelphia. I have been requested by several to show how I would float a sheet of paper, and before I proceed to do that I will say that I will make up my silver solution. I only wish it was practicable to go through the whole operation of printing, toning, and washing before our Convention.

Every printer should work his paper to his best advantage, and use no paper but that which gives him the greatest satisfaction.

It makes no difference who the maker is. When I am called on to test a printing bath, as I told you at St. Louis, and gave you an experiment, I go to work to test the silver, and see what the matter is; to see if any albumen is present, by charging it with alcohol and flaming it; also by the addition of camphor and alcohol.

I understand since I came to this convention, that many have tried that, and would not discontinue it.

A MEMBER: Give us your method once more.

MR. CLEMONS: I take one ounce of camphor or thereabouts to five or six ounces of 95 per cent. alcohol.

MR. BINGHAM: Will you allow me to say that I tried that myself. I used the alcohol pure, and I tried my best to get it on fire, but it would not burn. What would you do in such a case as that?

MR. CLEMONS: It was not good alcohol.

MR. BINGHAM: It was as good alcohol as you can get.

MR. CLEMONS: The alcohol will not interfere with the working of it, if it is done properly.

MR. BINGHAM: I could not get it to burn, that is all.

MR. CLEMONS: I would do it right here before your eyes, if I had the appliances. I tried it within two weeks, and it never worked any better.

MR. WEBSTER: I think that these inter-

ruptions not only trouble him, but interfere with all of us, who are trying to hear him.

MR. CLEMONS: I am willing, if parties ask me questions, to answer them just at the very point. I think it best that it should be done at the time, for that is the time you want to know.

MR. WEBSTER: It will take him all day, if he is interrupted.

MR. CLEMONS: I am willing to stay here all day, if it is any satisfaction; and I am willing to answer the questions of every one, no matter what they are.

MR. BINGHAM: I would say it is for information that I ask this. I used the alcohol, and tried the process, and the alcohol united with the water, and, as I found, I could not get it to burn, to save my life. I could not make it burn in any way. I poured in eight ounces of alcohol, and it would not burn; it united with the water. It did not float on the water at all.

MR. CLEMONS: I certainly think you have made a mistake. If you will come with me to any gallery I will perform it for you.

QUESTION: Please repeat the formula.

MR. CLEMONS: I use one ounce of camphor to five or six ounces of ninety-five (95) per cent. alcohol. That is only for discharging albumen from the printing bath.

QUESTION: How much solution?

ANSWER: A barrel full; it makes no difference. You have to add it until you get it all out; and you can only tell by shaking it. Add it to your silver. You immediately shake it up. If you stand it down, the bubbles float away, one after another; the albumen is all grabbed by the camphor. It is tacked to it. Then if you filter, as it passes through the filter, it falls down and there are no bubbles. There is no albumen, and you know that, so that you have to add camphor until that takes place. If you have a barrel full, you must add camphor sufficient to expel all the albumen; but that is not all that there is in the silver bath. There is organic matter there beside; and this you can test for.

Now, if you take that silver solution, and you add a little more alcohol, or sufficient so when you ignite it with a match, it will continue to burn for five minutes; and this must be done in the dark-room. You must try the experiment there. You will find that there is a sediment after it has gone out in the bottom of your saucer. That sediment then is pure and white As soon as you bring it out into the open day, it begins to change to chloride of silver; and you will find it does not throw down any precipitate while it is in solution. But how will we come to that? It is still there and continues to be there; and when you go through the performance of burning it out with alcohol, you will find it there; and if you collect it, and put it on a piece of charcoal, and use a blowpipe, you immediately convert it into pure silver. I am only giving these points that you may study them yourselves, and try the experiment to your own satisfaction. Next year the question will come up again, and some one will get up and say that he tried it, but it would not work; but that is not my fault.

MR. HALL: I would like to ask one question. If no discoloration takes place, and the solution is perfectly clear, is it necessary to go hunting for this albumen?

MR. CLEMONS: I will answer brother Hall right away. I have been called in oftentimes to see what was the matter with the paper; generally "Clemons's paper," for they all know me. I would look at the print, and I would say, "Well, you have got albumen in your silver, or some other injurious matter."

"Oh! my silver solution is pure."

"But how is this; it takes you half an hour to print?"

"How do you know that?"

I say, "You are toning through dirt; you are wasting a great deal more gold than you ought to. Why don't you get some alcohol and burn it out?"

"Oh! I never did it. I never thought of that."

I say, "You give me a saucer and I'll do it for you" He will look in astonishment and say, "That is something very queer," and you will find that he had almost one-half part of his silver solution pure dirt. I would find that he had sixteen (16) ounces there, and there were seven ounces of pure dirt.

MR. HALL: I am satisfied that that is a fact.

MR. CLEMONS: When your prints are not right, make up your mind that there is something the matter with the silver.

Now we have got as far as discharging the albumen, and getting out the silver which is held there in suspension. Now, I would say in reference to it, that there is something about it a little bit out of the routine of things. In this there is a chlorine which does not actually mix with the silver until it is discharged by the heat. It is held there in some way or other, I cannot tell how, but it is there all the same. It is the same with the egg. When the printer is dealing with the egg, he is dealing with a funny creature. I find it so, all the time. You may boil an egg as hard as it is possible, and you may open it and take out the yolk, put it in a mortar and pound it, put it in a bottle and shake it up, and you will find it to be pretty near full. Why? Because in that egg there is a particle of albumen that you cannot coagulate. It is mixed with the glycerin which is found in the egg; for you know there is glycerin in the yolk.

Now you cannot place a sheet of paper upon any strength of silver, but what a small portion of this will be discharged from the paper and passed to the silver solution, and this goes on day after day until the silver solution becomes charged with albumen, and after a certain time you will see on putting your prints up that they will not have the gloss that they had before. The trouble is in the silver solution, and then you must discharge your albumen from the silver. Unless you do, you will have bad-looking prints. And every day it will require more gold to tone them.

Now in my experiments, of course, I have not got any gallery; but I have a place in Philadelphia. Mr. Draper has given me permission to use his rooms for my experiments. I can try any experiments that I wish to, and I embraced the opportunity, and have done so for this Convention alone.

Now, as to floating. That will have to be regulated according to your negatives. A man who is working a strong negative, will not require as strong silver, nor will his paper require as long floating. And now as to the paper. It would be very well at the commencement of a new ream, to tear up one sheet, and float it on the silver bath different lengths of time, say, forty seconds, fifty seconds, one minute, two minutes, two and a half and three and so on up to five. Now print all those from negatives, then you can mark your print and see what it is.

Now, for a negative which has poor detail, no middle tints or shadows, the silver should be so conducted that every detail in the negative should be presented. When the print is definite, there should be nothing wanting. It should not be clogged up with strong silver, for if it is, you will mar the print and other portions, so that there would be no given point as to the strength of the silver solution which you use, nor as to the time of floating. Float and use your silver and use your prints as will suit you best when they come before you. Every man who conducts a gallery should know what prints suit him the best. If they do not come right to him, he should have them come right, and if he don't, there's money out of the till.

Now, a piece of paper will vary in strength or weight, according to the time of floating. If you are using silver at forty grains, and floating for two and a half minutes on silver which has been prepared properly—all the albumen removed from it—and then take a negative and print from it, you will find that you will have nearly all the detail requisite in it. That will be near the point. If you find it is not, and your shadows are clogged, you can reduce your time of floating. You can come down if there is not enough, and you will still require more silver or a longer floating. And when you take up the negatives in the morning they should be looked at. All those which are good, set by in their place; all those which are strong, set by, and fume accordingly.

The paper for weak negatives requires a longer fuming, taking into consideration also the printing. If you fume too long, they print too blue. Then you have got to regulate your silver again, and bring it

down, and be on the watch all the time, as I said before.

The printer should be brains clear to his heels, or else he will not get along successfully. You have often seen and taken notice that from certain negatives from which you had prints before that were bad, you will see them come down in time, and they will be a great deal better than the first. Why—because of the improved silver solution? No; it is no better than before: it is the same negative and the same solution. It may be that you will have repeated calls for that picture, and they will vary every time—that is, if the printer don't know his business they will vary continually; and you will often hear people say, "Why, these are not like me or like the lot I had previously;" and you cannot tell the reason why.

Mr. Hall: As the gentleman is speaking without notes, I will interrupt him. There is one important thing that I feel he is forgetting. He has not mentioned the albuminate of silver.

Mr. Clemons: I had thought of it. I thought you would ask about it. I always think when persons want anything, they will ask for it. I have my bulk-window open, and if there is anything you do not see and want, you must ask for it.

The President: That's the way.

Mr. Clemons: There is such a thing as the albuminate of silver. If you take and put albumen into a solution of silver in a certain quantity, it will not mar it at all. If you burn that out—that is, the albuminate of silver gets mixed, it is then it is mixed with it. You take the flame, and you can extract the silver from it. It is the albuminate of silver as much as if I took ammonia and acetic acid and I got the acetate of silver by its combination. If I take silver and put chlorine into it, I form the chloride of silver. It is only a combination of albumen and silver. It is the albuminate of silver. What else would you call it?

Mr. Hall: I would like to know how there could be albuminate of silver in the solution, and yet be perfectly clear?

Mr. Clemons: It is there still, just as much as if you froze a barrel of cider. You do not freeze it all; it does not all freeze; it is there.

Mr. Hall: If you will allow me, I will give my ideas on this point.

Mr. Clemons: Go ahead; that is what we are here for.

Mr. Hall: I presume I am here for that purpose. I may be wrong, and that is the reason I want to be set back. If I understand the action of the substances, that is, the chemical action of different substances, you cannot put two substances together, and have them retain their identity.

Now, the little albumen that comes off from the paper and goes back into the silver solution, unless there is a chemical combination, retains its identity; but if a catalytic action takes place forcing it into combination, that is some third substance which will unite; and if I understand it, that is the case when the albuminate of silver forms; and the moment that forms, that combination takes place, and produces an albuminate of silver, which is a sort of reddish substance, and you will always see it, when that change has taken place. The formation of the albuminate of silver in your silver solution can always be detected by the reddish appearance of the solution; and no man would be foolhardy enough, to go on and silver his paper when his silver solution was all muddled up by the albuminate of silver, but would probably take the means to precipitate it, get it out, or dissolve it.

The correct way of doing that, I believe, is to make it alkaline with ammonia or alum, and then precipitate it; for instance, to an acid reaction. Now, if I am wrong in this, and it is the albuminate of silver when it dissolves out, and is in there before this action takes place, and produces this coloring, I would like to know it.

Mr. Clemons: I would too, ladies and gentlemen. I do not know whether you have heard Mr. Hall on the albuminate of silver or not. He is mistaken, that is all. You form the albuminate of silver, and then he says he puts ammonia in and then redissolves that, and still he gets the albuminate of silver, and when you redissolve you form the albuminate of silver in your silver bath, by putting albumen in, and if

you want to see it, all you have got to do is to use your camphor and ninety-five per cent. alcohol, and you will see it burn and be discharged. And that is the albuminate of silver, and nothing else, my friend Hall.

MR. HALL: If I am mistaken, Hardwich is mistaken too; and that is all.

MR. CLEMONS: You put the albumen in and burn the silver; you have got the albumen then, and it is the albuminate of silver, because it is mixed with the silver, and you collect it and burn it. What do you do? You discharge the albumen, and you have your silver in a button. Hardwich is a first-rate book, but many men have made mistakes. I have made them too. I have changed my opinion this last year, and a wise man will change his opinion, but a fool never does.

MR. HALL: I am much obliged for the compliment. You may change your mind before another year.

MR. CLEMONS: If I do, I will let you know. I will write you.

MR. HALL: I am very much mistaken if the albumen in the silver solution is an albuminate of silver.

MR. CLEMONS: It is there, and what else would you call it.

MR. HALL: It is only in the solution mechanically. There has got to be a chemical action before there can be albuminate of silver.

MR. CLEMONS: He is on the road. At that point I have got you, so that I can fire away at you, and knock you over.

Now, you have brought in a third party there; you have brought in the heat, that is where that combination takes place, and that is what does take place. You go and place your silver and alcohol together, and flame them, and then comes in another power. After that has transpired, it was alkali before, it is acid now. Where does that acid come from?

MR. HALL: Is it necessary to create an enemy for the sake of burning him out?

MR. CLEMONS: You say you bring in heat, which produces a chemical change, and it makes the albuminate of silver. There are many things that you cannot prevent, and this is one of them. That is what I am here for, to keep it out.

QUESTION: When you mix up your silver, do you mix it up and let it float on the top?

MR. CLEMONS: Stir it around with a little glass rod, and leave the alcohol on the saucer, and then flame it, and it will burn up, and you will see it cook. The camphor will grab it and leave your silver solution in the right condition.

Now, when you see this solution, you will see the substance on the top swimming around, and there you will see it is the albuminate of silver coming up. Have you got any more questions, Mr. Hall?

MR. CHAMBERLAIN: I do not seem to understand as to the arrangement of the saucers. We would like to have that explained again.

You have your bath full of albumen, and your papers do not give that gloss that there should be; what is the proceeding?

MR. CLEMONS: If we put a silver solution of one hundred and twenty grains strength and make that into a bath—

MR. CHAMBERLAIN: We have already heard it.

MR. CLEMONS: I am trying to tell you as well as I can. It is there, and you must try to burn it out as well as you can; and if any one says it is not there he does not know anything about it.

Now you want to know how this thing is to be carried on. You get a silver solution, and know it is foul; now you go to work and boil that down two-thirds. The object is not to save the alcohol. Use alcohol of not a very high price; it is cheap, at fifty cents a gallon.

Now you go to work and set fire to your mixture in the saucers. Fill them half full of your solution and fill them up with alcohol, and flame them one after another, and let them burn four or five minutes, and you will find all the detrimental matter at the bottom of the saucer. Now you filter it, and your solution will be acid, but do not neutralize it whatever. I tell you it will be acid. I do not care if it was ever so strongly alkaline previous to that, it will now be acid.

If you take simple alcohol and water, both neutral, flame them the same way, and test afterwards, you will find that they are

acid. You float a sheet of paper, after it has been prepared—after the bath has been prepared of the proper strength—and see the difference between the prints you float on it now, and what it was previous to that, when foul with the albuminate of silver.

MR. WEBSTER: You do not understand the question asked you. You have been changing about and thinking of Mr. Hall's question. The question is, how do you put the alcohol into those fire-pans?

MR. CLEMONS: I told him as plainly as I could that I evaporated the solution two-thirds away, and then I had saucers suitably arranged, and I would fill them half full of the solution—distribute the solution among the whole of them—then I would fill them up with alcohol and set fire. A little waste of alcohol once a week is not much compared to having good prints.

MR. CHAMBERLAIN: Why do you not put it in your flat toning-dish?

MR. CLEMONS: If you want to reduce your evaporating dish to a smaller size you can do it; it will just crack the evaporating-dish all to pieces. That's just it. Just do it, and you will see; that's all.

QUESTION: Suppose your silver is all right, which is the best neutral bath, and what bath would give the best results?

MR. CLEMONS: That would be according to the paper.

A MEMBER: Suppose it was the "Clemons paper?"

MR. CLEMONS: They are working that in every way, so I am told; and so am I. But I told you at the start to work your paper so as to produce the best results; the way you like it, do it. But I do not use any ammonia; but if you find that ammonia will do best, why use it.

QUESTION: How do you make the bath at the start?

ANSWER: I make it plain. I use glycerin. Take an ounce (troy) of silver, then put it about forty grains to the solution. I take one ounce (troy) of silver; that is four hundred and eighty grains. I make that into a forty-grain solution, adding one and a half ounces of glycerin if I use Saxe paper.

If I was using Rives paper, I would not use it near so strong, because that paper is more porous, and is very easily torn in washing, but is the best paper to give good results; but many of you would not work it on account of its being so easily torn in the water.

QUESTION: How strong would you use the solution for Rives paper?

MR. CLEMONS: About one ounce. I said last year before the St. Louis convention that glycerin was the best known detective of bad silver. I repeat it here.

QUESTION: Will Mr. Clemons state how strong he makes his bath?

MR. CLEMONS: I have just stated that.

A MEMBER: If he will wait till Mr. Clemons gets through, he will tell us all about it, and do it as quick as he can. We do not understand the chemistry of it, and we will get through with it and understand it better if we go clear round it.

MR. CLEMONS: Last night in the Rink I was all surrounded by my friends for two hours and a half, with people wishing me to answer here upon the stage precisely what I am endeavoring to do now. But I must hoe my own row. I will come to the toning-bath when it is proper. I cannot fly backwards and forwards like a weaver's shuttle.

A MEMBER: I would like to ask just one question in reference to this purification of the silver bath, and that is this, If the silver bath be evaporated to dryness and fused, is the effect as good as when cleared up by the use of alcohol?

MR. CLEMONS: You may fuse the albumen and silver bath until it all comes down in a diffused state, and you take that silver and put it in solution.

Now place it into a bottle; shake it, and see if it is free from albumen.

A MEMBER: I do not know; I want to know.

MR. CLEMONS: It is easy to try when you get home. You may drop me a letter about it, and I will answer it.

MR. TRESIZE: I wish to ask Mr. Clemons if he knows himself whether albumen itself will burn like a piece of wood, or other ligneous matter.

MR. CLEMONS: It swells up; it don't burn like wood.

MR. TRESIZE: Can you reduce it to a

charcoal or carbon, and expel all the other elements? If it is carbon, can you do that?

Mr. Clemons: I do not think you can *in toto;* for if afterwards you place it in a silver solution—

Mr. Tresize: That is not the question I asked. I want to know if albumen will burn, and if it can be reduced to charcoal as a piece of wood can? For when you fuse your silver in solution, you burn the albumen bath and reduce it to carbon, which you can filter out and unite that with silver in the shape of carbonate.

Mr. Clemons: This subject is foreign to printing and toning. If Mr. Tresize will try the operation, he will find out. I am only giving you precisely what I know myself. I am not a theoretical man; I am a practical man, and I give you just precisely what I know myself.

Mr. Webster: There was a very unfortunate omission yesterday in our proceedings, and I have interrupted Mr. Clemons just at this point in order to introduce it, so that I might leave the hall and attend the committee meeting. It is something of great importance to all of us, and I will try to make a report before we adjourn. The omission was in extending what was really due to the past officers, or the officers of this Association for the past year. I have therefore come here to present a resolution. Of course any one else could have read it as well as myself. My object was to preface it with remarks.

*Resolved*, That the thanks of the National Photographic Association be unanimously voted to the officers of the past year, for their efficient services in their capacities, all of which have been given voluntarily for the benefit of the Association.

The motion was seconded.

Mr. Jewell put the question, and it was adopted unanimously.

Mr. Thorp: I believe that it has been commonly understood that these forenoon sessions were for business. We want to hear Mr. Clemons more on this matter. It is getting pretty late, and I hope that he will be allowed to finish his remarks this forenoon, if possible. I would merely ask what is the right of every member, and the privilege to make a personal explanation, and I will not consume more than one minute of time.

The President: I would state that I have a pretty long programme, and we shall not be able to get through half of it this forenoon.

Mr. Clemons: I will hurry through this matter rapidly. I have been interruped by different questions, or I should have been further ahead.

Question: Tell us about toning.

Mr. Clemons: All right, my friend, I shall go right at it. I see you want it; but I should like to answer Mr. Thorp, the question he asked me yesterday, when the question of solar printing was on the carpet. He wished to know, I believe, how to prepare a strong negative; how to make an enlargement with a strong negative; that is, a cast-iron negative, or an iron-clad. You will have to prepare a silver or salting solution for this purpose; that is, one of those which requires at least an hour in the sunlight to print. You will take one hundred grains of pure chloride of ammonia; not the purest, but chemically pure; and five ounces of water. On this you lay your sheet of paper down and lightly sweep it over with a piece of cotton regularly, until you get it all down.

Now go to work and make up ammonia, nitrate of silver, two hundred and twenty-five grains. Do you hear that? Then you will take when the sheet is dry and silver it and place that upon the camera, and you will print it in one hour and a half, according to its density.

I worked for Mr. Wenderoth as foreman in the printing department. We had four negatives that were iron-clad. It took one hour to print. I then did the solar work. I think that he had orders from each one. They were whole-sheet size and were $200. We had to work in and out to produce transparencies, so that we could make solar camera negatives. But such a thing could not be obtained. He ordered me to print them; I told him I would have to salt my silver.

Now he is not a stingy man by any means. I tried that on one whole day, and it did not make a mark on the paper, and they would

not finish up from the first of June till the falls of eternity. I believe that is satisfactory so far, is it *not?*

Now, I will go on with the toning. I always wash my prints, so as to get rid of the free nitrate of silver before toning After being thoroughly washed I use a toning-bath made with borax. I have a saturated solution of borax; I take one ounce of that to six ounces of water. Now I give you that proportion, and I use about one drachm to a grain of gold. This gold I make myself by taking a gold dollar and putting it in three-quarters of an ounce of aqua regia; that just eats up the gold dollar.

I put eight ounces of water to that. When this solution becomes cold, that makes it only about three grains strong, and of that I use about a drachm to a drachm and a half to that quantity of solution, and I generally use half a gallon of that solution to the bath.

To that bath I work half an ounce of salt to an ounce, according as the print wants it. I do not always work it the same, but so as to produce the best results. That is my toning-bath. Then I place the prints into hyposulphite of soda; that varies according to the thickness of the paper. I work a very strong solution myself, and I immediately take them out of that when fixed and place them in a strong solution of salt, that is to prevent blistering.

If you have paper which blisters, you should place it in a strong solution of salt; it destroys this tendency, and you will have none of it at all. But that is not the only office it fulfils. There is a battle going on there, which drives out the hyposulphite of soda. At the same time you take a strong briny solution of salt and take your print directly from the hypo; place it in there and allow it to stay five minutes. Take it from there, and wash it off, and hang it up.

QUESTION: How long do you wash it in the water; did you say five minutes?

MR. CLEMONS: You wash your prints afterwards. If the prints are well washed previous to toning they do not want over two hours; where the water will change, eight times. You can test that by taking the nitrate of mercury and holding the prints up, and when the last drop is about to drop, let it drop into a solution which you have prepared, and if it don't cloud, there is no hyposulphite of soda present. I have got through toning I believe.

*Fixing, &c.*—I had complaints this last winter, mostly from the Northern States, about the softening of albumen. It is produced in the coldest seasons, and in the coldest weather when the silver has very little action. The albumen is semi-coagulated. It can be cured by taking the silver solution and warming it up to a proper strength, summer heat. You get shut of it at once if the silver is strong enough, or you can put alcohol in, which assists in the coagulation. Alum is a coagulator of albumen, one of the greatest known, and Mr. Anthony gave us the information; he was the first one to use it; all the credit is due to him. It is an excellent thing in the silver solution, for when the silver leaves the paper it arrests it and coagulates it.

Silver will work longer that way than without it. I have used it since it has been brought before the public, and Mr. Anthony should have a gold medal for it.

QUESTION: Would alum dissipate the silver if you coat in excess?

MR. CLEMONS: You could do it in excess and it would not be any great detriment. It would only take up a certain amount, and only require fuming a little longer; when you come to tone, the tones would be all right; I never saw any difference. It will print readier, and when you come to tone it is right.

I believe I have got all through that square.

QUESTION: In the hyposulphite solution that you speak of, using a large quantity of glycerin, do you have any trouble in drying? Glycerin when mixed with a watery solution is apt to retard the drying. Do you ever have any trouble?

MR. CLEMONS: None whatever. The paper when it comes out will naturally turn black. It will naturally turn black, and will dry out straight.

When you use an ounce and a half of glycerin it is apt to do that on a light kind of paper, because there is a moisture there.

You cannot avoid it. Always use alum in connection with the glycerin.

QUESTION: You spoke of a longer or shorter time in flowing. Now every albumenized paper has a certain amount of chlorine in it—chloride of sodium and ammonium, or whatever chloride the albumenizer may use. Now, according to chemistry, chloride and nitrate of silver will combine in definite proportions which we cannot alter. If I float my sheet of paper long enough to convert all that chloride into the chloride of silver, what benefit do we derive from floating any longer time than it is necessary to accomplish that? Will it not destroy the brilliancy of my print by floating it so much longer, thereby allowing the silver solution to penetrate more into the paper than it is desirable according to my notion? Is it not better to keep the action on the surface of the paper? This is an important question, and needs explanation.

MR. CLEMONS: All manufacturers of paper manufacture paper differently. As to the quantity of chloride of ammonium used I use five grains for albumen paper. About the quantity of silver employed for albumen paper is precisely the right strength for plain paper.

If there is one grain of salt employed in the paper you will require a fraction over seven grains of silver to be equal to it. Three grains would be the chemical equivalent; three to one is the chemical equivalent.

You must remember that the chlorine is imbedded in the albumen.

I am now salting five grains. For strong negatives it wants about thirty-five grains of silver; for weak negatives it will want forty. You cannot go over it. Now if you take a sheet of paper and weigh it previous to silvering it will weigh 205, 207, or 208 grains. Now silver it; after you silver it dry that sheet of paper and weigh it, and you will find it has gained twenty-six grains; that is twenty-six grains of silver have been added to it. Now you may make a calculation as to how much silver you are taking out of your bath. If you are using glycerin in it, it will require thirty-seven grains more, and that will vary according to the time of floating.

QUESTION: My question is with reference to floating a longer or a shorter time in the same bath. How do you account for the difference in the prints as you state.

ANSWER: The heft of the paper makes the difference in the chloride. Heavy Rives paper, ten kilos, requires a longer time than the nine kilo; that is, when the sheet lies level, but not always.

MR. HARRIS: Will Mr. Clemons please tell us whether there should be any difference between a strong and a weak bath when the paper is allowed to float as long as has been stated by the gentleman last up? There is a certain amount of chlorine in the paper that will only reduce so much silver. I cannot see for the life of me why the same result is not accomplished by leaving it a little longer in the bath, than by making the bath stronger.

MR. CLEMONS: I will answer the gentleman. When you float paper on a silver bath, you are leaving a little beyond the amount of silver that is required of the first few sheets. Now if you float these first few sheets, it becomes equivalent; after you float beyond that, it is not its equivalent; if you take that bath and try it by the volumetric test you will find this out. You float your sheet of paper when you have thirty-five or forty grains; now you float twelve sheets of paper and test it, and you will find that you have reduced your silver and you have to renew it. If you have twelve more sheets or less you will not print. I am sending around a picture now. It is printed and mounted on one piece of paper. In drying it separated in one part. You can see it. One part was printed. After that was printed it did not print right. I turned it over and the other is printed pretty near right.

MR. HARRIS: That is a point that I could not see the reason for.

MR. CLEMONS: Now photographers get ideas into their heads. One man says he must have his bath alkaline, another says that he must have his bath acid. One man heats up his bath to a hundred degrees and another puts his bath in a refrigerator. One man wants his bath weak, and another

wants it strong. There is reason in all things, but all of these things cannot be right. I have tried my paper on a bath at 40 grains, taken the same sheet, cut it up in strips, and floated one piece on a bath at 40 grains; another on a bath at 50 grains; another on a bath at 60 grains; another on a bath at 70 grains, and another at 80 grains, so as to see the effect of the strongest silver, and have never found an instance where the light did not attack the one floated in the weakest bath as it did the one floated in the strongest bath. I cannot see how there is any difference anyway as there can be only a certain amount of silver taken up. You say that if the bath is strong it requires less time to do it.

MR. CHAMBERLAIN: For instance, if you leave a small bath with an assistant, and tell him to boil it down two-thirds, and to add glycerin, and he goes and boils it all away, what would be the effect of that?

MR. CLEMONS: It would leave the dish and go to the ceiling.

MR CHAMBERLAIN: The reason I asked the question was so that some would understand the effect.

MR. CLEMONS: I am very proud to answer you the question, and I will give you the reason in short metre. If it goes down to a certain degree there is a fatty matter there, and a bubble gets under that, and away she will go.

QUESTION: What does it form?

ANSWER: It forms glycerin.

A MEMBER: It explodes.

MR. CLEMONS: There is nothing to explode. I would say that I believe you cannot form nitroglycerin until you add sulphuric acid, but you can do it without by putting in nitric acid, but if you want to form nitroglycerin you have to have sulphuric acid there. They call it nitroglycerin.

QUESTION: Is not that the fulminate of silver?

ANSWER: That is produced by ammonia and sulphur only.

A MEMBER: I was going to speak in reference to the first experiment. Mr. Clemons says he floats a piece of the same paper on solutions of different strength and pins them on a board, and exposes them all at once. That is the case I believe.

MR. CLEMONS: Yes, sir.

A MEMBER: I think it would have been fair to have printed all of the same intensity. Then I think your experiment would have been fair.

MR. HARRIS: I have done that same thing, and I am yet to find a man who can tell me with any certainty which had been floated the longest.

The President announced the programme for the afternoon

MR. CLEMONS: I wish you to wait one moment, I have a nice thing here. It is custard. I always like dessert left until the last. It is to make porcelain prints with albumen only.

| | |
|---|---|
| Albumen, . . . | 3 ounces. |
| Water, . . . . | 1 ounce. |
| Chloride of Ammonium, | 30 grains. |
| Liquid Ammonia, . . | 3 to 5 grains. |

Beat the egg and water together well, then add salt.

QUESTION: How much salt?

ANSWER: 60 grains. In one case I used 80 grains. I made a large bath. You will have to take 8 ounces of water to make up 4 ounces of silver. You make that up to 60 grains. You then take out 3 ounces and use the ammonio-nitrate. This is done by pouring out 3 ounces of the solution and adding ammonia to it until a precipitate forms. Redissolve that precipitate, and after that is done add nitric acid until it becomes slightly acid. Now after you take and albumenize your porcelain plates, you dry them, and after you have dried them you take and put them into the bath, leaving them there five minutes that the silver may permeate the film clear through. Now after you take it from the bath you pour the alcohol on, take a piece of cotton and go over it. It is greasy; you take a little alcohol and flow it on. Leave it a minute or two and dry off. The reason of this is to get the surplus silver off. The reason is, if you did not it would run when you toned. After printing, it is washed and finished precisely as the albumen-paper is produced, except in the toning. You will find one toned enough and another not toned enough. You can go over it again, pushing them in

the hyposulphite of soda. Now, gentlemen, I think I have had my bulk window open for a long while, I think it is time that we adjourn. I think I have tired you all out with my talk.

THE PRESIDENT: A motion to adjourn will be in order.

MR. CLEMONS: I move that we adjourn.

Agreed to.

The Convention then adjourned to meet at 3 o'clock.

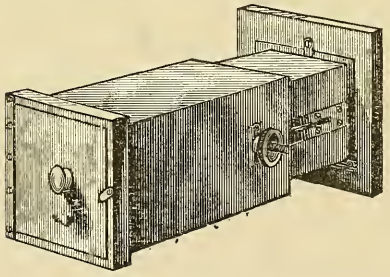
*FOURTH DAY—AFTERNOON SESSION.*

FRIDAY, July 18th, 1873.

The Association was called to order by the President.

THE PRESIDENT: The first business in order is a paper by Mr. Alfred Hall, of Chicago, on "Copying and Enlarging."

MR. HALL: Mr. President, on receiving an invitation to give my practical views on this subject, I prepared the article which I will read, premising by saying that I have heretofore tried to describe, in an article published in the *Mosaics*, a little piece of apparatus which my operators all call very convenient, and the best we have ever used; it is an extension for copying. It is used in those cases where you want to raise a copy from a small picture to a larger size. I will try and give you a little idea of it.



Mr. Hall then explained his model, saying: This, gentlemen, is simply a little model of the extension I use, the thing itself being too cumbersome to bring.

Suppose this to be the front of the camera, and this knob the camera-tube. Now I have three or four different sized camera-tubes, fitted with little bars like this, which fit the front of the camera; of course, put in like that. Now if I have a copy to make, I adjust a tube in the camera which I wish to use; of course I slip this out from in front of the camera; it is a telescopic extension; this extension slips in, and it is buttoned in, in place of the front. Of course, as I say, I select my tube, which is on a board ready for the camera-box, to put it in here, then draw the camera-box in that; slide this out to the desired length, screw this in its place; it is held there, of course, and it will give you any length you want, besides giving you the convenience of slipping the tubes out and putting it on here; any one can make one just like it.

Mr. Hall continued:

## ON COPYING, ENLARGING, ETC.

On receiving an invitation to give my practical experience here on the subject of copying and enlarging, I found myself on the former question in about the same predicament as a certain minister, who had preached to a congregation for two years, at the end of which he concluded that duty called him to another sphere of action. One of his parishioners asked him why he had concluded to leave them? His reply was that he had told them all he knew on the subject of theology, and did not think it would be interesting to hear him repeat it.

So it is with me. On page 97 of the *Mosaics* for 1873, you will find about all I know on that subject.

As far as enlarging is concerned, the old process of using the solar camera under a cloudless sky is undoubtedly as practical as any.

For anything new or interesting in this line, you must look to those who practice it more extensively than your humble servant.

The manner of enlarging by first making a transparency, then producing an enlarged negative from that, has been attracting considerable attention of late, and I believe it to be the most feasible plan known for enlarging in cloudy weather, and were it not for the expense of producing the large negative, it would be likely to supersede solar printing altogether.

The copying camera, or apparatus necessary to produce the transparencies, has been so often described that it is hardly necessary to repeat it here; the same apparatus will answer every purpose for producing moderate size enlargements from transparencies; but as camera-boxes will not draw far enough to produce anything like life-size from a small transparency, it will be necessary, in order to do a general enlarging business, to have a room, say ten or twelve feet long, darkened, except one light of glass, that to be ground, the ground side out; or tissue-

paper will do this, to be boxed around inside of the room; the length of this box will depend upon the size and focal length of the lens to be used; the front of this box to be furnished with an opening groove and button, the same as a camera-box, so you can slip conveniently the lens from one to the other; the box to open on the side, and grooves on the inside of the top and bottom, to receive a frame holding the transparency The transparency should always be a few inches from the ground-glass.

By this arrangement you exclude all the light from the room, except what passes through the transparency and lens.

An adjustable stand or frame, with pegs to hold the sensitized glass, completes the arrangement of transforming the room into a cheap mammoth camera-box; a piece of cardboard answers every purpose to focus on.

With this cheap and simple arrangement, every photographer can have all in the way of a camera that is necessary to do the largest work.

It is necessary that this room should be provided with a large sink and plenty of water. If you have no large bath, a tray will answer every purpose to sensitize your plate in.

The quality of the enlargement depends very much on the fineness of the transparency. Therefore the utmost care should be exercised both with the chemicals and manipulations.

The formulæ for transparencies, which in our hands have given the best results, are the following:

COLLODION.

| | |
|---|---|
| Ether and Alcohol, . . | equal parts. |
| Iodide of Potassium, . . | 2 grains. |
| Iodide of Magnesium, . . | 2½ " |
| Bromide of Cadmium, . . | 2½ " |
| Parys's Cotton, . . . | 3½ " |

BATH.

Ordinary 40 grains Negative Solution.

DEVELOPER.

To 12 ounces of Water, add 36 grains of Pyrogallic Acid, 2 ounces of Acetic Acid, and 12 grains of Citric Acid.

This developer will not act rapidly like iron. You must give it time to work out all the details, equal to those in the negative, which it will do with proper exposure, if the chemicals are in perfect working order.

Before manipulating this developer, be sure to remove all traces of iron from your fingers, for the least particle coming in contact with the pyro will be sure to cause stains.

Fix in hyposulphite of soda or cyanide of potassium, as you like.

Enlarged negatives, made with care from these transparencies, with any good sample of collodion, and developed with iron in the usual way, will produce prints equal to any enlargement which has come under my observation.

By this process we have been producing some very satisfactory results; but I was told, and I read, of the simplicity, the superiority, and the advantages of the Edwards process. Well, I invested, that is, I exchanged my hard-earned currency for a secret—a thing which I have said I never would retain in connection with our beautiful art, for I believe a secret in any science tends to narrow the mind and belittle the soul of its possessor. But there are times when a man's curiosity gets the better of his judgment. When this happens he is pretty sure to get fooled. I would gladly tell you all about this process, and give the formulæ, with my limited experience, were not my pen muzzled, and my lips sealed with a bond of five thousand dollars. Consequently I will pass on to a subject, which may seem a little out of place at this time; but as it is a subject which has forced me to give it its due share of attention, and one which has not been often publicly discussed, I take the liberty to give my idea as to the cause and prevention of *blistering of albumen paper*, which has been a pest that not only causes vexation, but a serious loss also.

The generally accepted theory, and one which I believed in for a long time, was that one surface being albumen and the other paper, one absorbed more water than the other, causing an unequal expansion, thus separating the albumen from the paper.

Several remedies have been used to prevent this, such as salt, acetic acid, alum, &c., none of which alone ever proved successful in my practice. Inasmuch as this unequal expansion, as we have been in the habit of calling it, never causes a blister until the paper has received the action of the chemicals, I began to think that this theory must be wrong, and that we must look for some force beyond this that causes the mischief.

To prove this I soaked albumen paper in water a long time; then I submitted paper to all the chemical changes except silver; neither showed the least sign of blistering.

From this I came to the conclusion that the difficulty arose from some chemical action on the silver salt, and subsequent experiments have proved clearly to my mind that the interchange or crossing over of the elements from compound to compound, during the process of toning and fixing, frees certain gaseous elements faster than

they can easily escape, which, under certain conditions, cleaves the albumen from the paper to make room for their expansion.

It is well known that all gases, when freed from their combinations, expand largely.

The circumstances under which these gases tear the albumen from the paper are these:

All alkaline substances, such as fuming, toning, &c., tend to dissolve the glazing of the paper, thus weakening the adhesion of the albumen to the paper. Under such circumstances they yield easily at all weak points to the expansive force of the gases generated.

Heavy albumenized paper is more liable to blister than the light, on account of its thickness resisting the escape of the gases. What these gases are, not being a chemist, I will not venture to say. My idea is, with the present compounds used for producing photographs, the generation of these gases cannot be prevented, and the remedy must be either an acid reaction before and after toning, to neutralize the alkaline properties in the prints, thereby retaining the adhesion of the albumen to the paper, or by using something to retard the action of the hyposulphite of soda on the silver salt, acid, or alum; alum, having an acid reaction, accomplishes the former, while common salt accomplishes the latter.

But I find that albumen paper, strongly inclined to blister, cannot be prevented from so doing by the simple treatment of either of these remedies, but will require all; and I think sulphuric acid far better and much cheaper to use than acetic; it imparts a beautiful red color to the prints, that changes gradually under the action of the gold, which enables the operator to produce perfectly uniform tones with the utmost ease.

The alum neutralizes the alkaline properties imparted by the toning, which will be sure to dissolve the glazing of the paper if allowed to continue its action.

It gives brilliancy to the prints by hardening or tanning the albumen, thereby supporting the image, and preventing its sinking under the action of the fixing solution.

The salt, after fixing, furnishes a chloride for the hyposulphite of soda in the prints to act upon, thereby preventing its vigorous attack upon the real substance of the picture, which event is sure to generate gases fast enough to cause blistering, especially in double-gloss paper.

To give a clear idea of my management of printing and toning, I will give our formulæ.

But, gentlemen, a formula, unless managed with the very best of judgment, is like a ship without a rudder. You know not whither it will drift you.

We use the double-gloss S. & M. Dresden paper. Float from thirty to sixty seconds in summer, longer in winter, on a sixty-grain silver solution. Fume from four to five minutes in summer, and nearly twice that time in winter; wash our prints in three or four waters, to remove the free nitrate of silver; then immerse them for five minutes in a weak solution of sulphuric acid, say an ounce of acid to a gallon of water; then remove the acid by three or four washings.

Tone in a weak gold solution, made slightly alkaline with carbonate or acetate of soda.

"Never use bicarbonate" after toning; subject them for five minutes to an alum bath, about two ounces of alum to a gallon of water. This can be used over several times, but as it costs but a few cents per pound, I prefer it fresh every time. Remove them from the alum to the hyposulphite solution, which should never be stronger than twelve ounces of hyposulphite to the gallon of water. Dissolve the hyposulphite an hour or two before using; remove the prints from the hyposulphite bath to a strong solution of salt; after remaining a few minutes in that, give them running water a few hours. Keep the prints face up in the fixing-bath, and put them in the water the same way, for the gas will rise through the albumen freer than it can through the paper.

By following the above directions, you can use any kind of paper without a sign of blistering.

My theory as to the cause of the blistering of albumen paper may appear a little gassy to some.

In fact, it has been said that it was one of my hobbies. Well, let it be so. I believe in hobbies. I believe they have advanced science more than any other, perhaps more than all other, means, although they are like idols, worshipped only in absence of a proper knowledge of the true principles. Yet I believe it is better to worship them with errors than to worship nothing.

Tupper says:

"For there is no error so crooked but it hath
in it some lines of truth;
Nor is no poison so deadly that it serveth not
some wholesome use."

So let us ride our hobbies, for, sooner or later, the errors will break down, and leave us enthroned on the altar of truth, and the quickest

way for us to arise at this high station is to bring our hobbies before the public; show them up just as we see them; bring all the arguments we can to sustain them; do not be afraid of being laughed at, for the truths they contain will be sure to accomplish their good work, while the errors will likely be pointed out by some one.

Then it has been said, "That the cackling of a goose once saved Rome from falling into the hands of her enemies." And why may not our noise save some deserving member of our profession from falling into the hands of a Judas, who is ever ready to betray his Master for the pittance of thirty pieces of silver.

Mr. Hall (resuming): This developer will not act like iron; you must give it time to work out all the details in the negative, which it will do with proper exposure, if the chemicals are in proper working order. Before manipulating this developer be sure to remove all traces of iron. I think the couple of small pictures show what the negatives would have been if produced in a larger form, perfectly plain, without any retouching, or anything of that kind; there is one thrown up from a small negative. I have also the transparencies that they are made from.

(The pictures were then passed around.)

We have been producing by this process some very satisfactory results. I would say we have been using double gloss paper, and have had serious blistering which has called my attention to it.

I avoid the salt when I can, and save my prints, for I believe it injures the brilliancy of the print.

I find albumen-paper strongly inclined to blister. The salt I avoid, because as I have said before, I think it injures the brilliancy of the print.

Anybody who wishes to examine this little piece of apparatus can do so.

The President: Mr. Hall came to me this morning and said that he was afraid he was going to be too long. I think his paper was just the right length, and, if anything, too short.

Now, we have our friend Lockwood, who will continue the same subject.

Mr. Lockwood: Mr. President, I did not know until I got home last night after ten o'clock, that I was to say anything on this subject at all. If I had I should have made a little better preparation than I have made.

Now, to begin with, I will promise to be very brief. I will first show you the very extensive model* my wife had the kindness to make for me; there might be some little difference between my apparatus and the pattern, which I will try to explain.

In making transparencies, I have found that the secret of the enlargement is, that it requires very fine artistic manipulation, and the finest operation or management of the chemicals.

Now, when you once get a transparency of just the right density, then you are just on the right path to make a first-class enlargement. When I have large pictures to make, I would suggest the necessity of enlarging the transparency unless you have extra apparatus, or an extra convenience for making the enlargement. In my place, anything larger than fourteen by ten we send to Albert Moore, Philadelphia, to be enlarged by the solar camera process, and others I enlarge at home by my process.

I have a box with a cone on it, instead of a box with parallel sides, like this. It is a cone in which I use a Voigtlander lens. I think the Steinheil lens is better, if you can get one. There are more facilities for enlarging.

You put your cone on your box, put your cone in, in place of the 4-4 tube; have on your cone a shoulder from which the light comes in this way; be sure it fits nicely and tight, like this. By shifting this inside the box over the glass, and having this aperture so you can slip in your negative as you like, in the plate-holder, be sure that it is all stopped up so there can be no air admitted. Unless you do, you will have a solarized transparency. If it is entirely stopped up so no air can pass in, you will get good results.

I have a rack on which I place it and shift it up to the side-light. The reason is to cut off all diffusion of light that may come outside of the light that comes through the screen, because every extra ray which penetrates through this glass nega-

* A pasteboard model of an extension, the same in principle as Mr. Hall's.

tive will uniformily tend to solarization. The better way would be to have the front and the backs made exactly the same; the plate-holder is made with a slide to draw out: when you have the thing to shift, shove the box right up to the screen. I would use cloth instead of ground-glass because it gives a finer quality of light. I will tell you why: if you make a frame three feet square or two feet square, which will be better, have it large enough, make it with two-inch doors, to come together this way, like a square box-frame; cover it on both sides with fine muslin; you can get the cloth folded in two inches or two inches and a half square; now, by putting on two pieces of cloth or three pieces of cloth, the cloth is entirely out of focus, and you get a soft, diffused light. If you use one piece of cloth the lines and shadows will extend, and, although you cannot see it in the negative, you will find that it helps to spoil the negative. After you have seen it, put this little box very close; if you have it made with a plate-holder and lens shove it clear up, so that you get nothing but the direct diffused light of the very best quality.

Then, as to the formula of my first collodion for making the negative and getting the very best collodion you know of; if you cannot make any yourself, buy it; you want a first-class collodion, not too heavy; you want one to flow just as smooth as the glass. The glass on which the transparency is made must be fine and perfectly clean, otherwise the result will be a failure.

You must be sure the glass is perfectly clean and the collodion of the right density and thickness to flow nicely. Coat it in the bath in the usual way, expose it from five to sixteen seconds, according to the atmosphere. If clear it will require less time to make a good transparency. More good transparencies are spoiled by overexposure than any other way. Some fine negatives have been made in only three seconds of time. Then in the developing process reduce your developer, and I would suggest the condition necessary for a good developer: you get a good developer made in the usual way; what I mean is the sulphate of iron, the acetic acid, and you can add a little citric acid; in other words, I would make a saturated solution of citric acid, very strong, and add a little to the developer. I cannot tell you how much; I would say a teaspoonful to a five-ounce bottle. I think this helps to retard the development. If your plate has been the right length of time in the bath it tends to make it develop more smoothly. The image instead of flashing out will come up very nicely, just exactly like one of your best ambrotypes; and unless it comes out, and unless you have the perfect management of your chemicals at hand, so you are sure it is coming out in this way, it will be a failure.

Now in developing, lies the secret of the whole thing. Supposing your plate and glass are clean, and the collodion is right when you develop it, carry it just to the point to give it sufficient density for the purpose you require.

But if you never have practiced it, you will have to try it some time to find out how thick the transparency must be. It must be exactly right, or the negative will possess imperfect qualities. If the transparency does, it is a failure. I have often had cause to go over the whole thing again. Experience has told me that the manipulation of the chemicals in such cases as this require attention and particular attention.

Now when I get my transparency thus far, I fix it. You can fix it with any weak solution of cyanide. I do not like cyanide. I fix in a weak solution of soda, a solution that will take ten minutes to fix. If you are in a hurry, and the day is not too warm, you can use your transparency for enlarging without drying and varnishing. I never varnish them if I can help it; it gives trouble when flowing the varnish over the transparency. You are likely to get some little blemish you wish to take off. If you can use your negative without it, it is much better.

Now having the transparency, you wish to make an enlargement with your box; slip over the cone, and pull this out (indicating) until you get the size to make the negative to copy; and this little inside part coming out to a certain extent, you must have arranged with a thumb-screw something like friend Hall's. You have to regulate the

size. Be sure in all your manipulations that you allow no light in that; that is, when you get ready to work, not a particle of light excepting the light you want to use. Then after I have got my transparency, suppose it pleases me in every respect and in every detail, but the high-lights which mark every picture you must be careful with. I am very careful when I use my apparatus at home that everything is perfectly clean. Be sure to be slow, and be sure that everything is exactly right. Then go ahead and use your negative collodion the same as when making a negative of an ordinary person. Although I have experimented a great deal with collodion, I have obtained with common negative collodion that would make good negatives, satisfactory results in this way by enlarging. After you have exposed this to the second exposure it will require more time, say thirty seconds. You use this diffused light after you have developed in an ordinary negative developer. Fix in the ordinary way with soda. If you have been careful in the manipulation, the negative in all respects will be so nearly like the first negative that no one but a first-class artist could tell otherwise. The whole secret of the enlarging process is in being particularly nice in making the transparency, and I guess that is the experience of all who have ever made transparencies, after which you can proceed as with any other negative. This is the process which I work.

If there is any one who wishes to ask a question, I will answer it now, or if there are any little points which you do not understand, now is your chance. I did not expect to expose this. Did not know it was wanted, but you are welcome to it.

QUESTION: What kind of diaphragm do you use?

ANSWER: I use about the third size diaphragm.

QUESTION: Suppose you have an iron-clad negative, and you want to use it, would you make more than fifteen seconds' exposure for the first time?

ANSWER: You will have to use your judgment in every part of the photographic manipulation, and every artist, in making a negative, whether a negative from a negative, or a transparency from a negative, or a negative from a copy—all of us have to exercise scientific judgment. If we do not do it, our business is for naught—our work is a failure. If you have a very hard negative, and one which has been made a long time before, be very careful you give your transparency sufficient time to counteract the defects in the first negative, so that they will not be repeated in the transparency. In the first place the secret is in the transparency. It is easier to manage in the first step than in the second. That is the point. If the negative is weak, lessen the time in proportion. Therefore save all your pains for the transparency. That is the point; that is where the secret is.

THE PRESIDENT: If there are any more questions, let us have them now.

MR. LOCKWOOD: Gentlemen, there is nothing but great care required in this business; nothing but absolute care. If your first glass is right, and if you work with an eye to your business, you will work with first-class success. If you work otherwise, you will have failures, and for your reward you will have empty pockets and a great many anathemas. I have had a great many anathemas and a great many empty pockets; but I have found by sticking to the thing, and not giving it up until I had sounded it to the bottom, I have been enabled to overcome difficulties and meet with success. But the whole secret in the management depends upon the thorough knowledge of the business.

MR. BAKER: I would announce in reference to the picture of the Association, that if there are a hundred copies taken, they can be had at a dollar apiece, and fifty cents on each copy will be given to the treasury by Mr. Bliss.

THE PRESIDENT: I will order that, as at every gathering of the National Photographic Association we have been taken in a group, and whereas we consider those groups to be the best that can be had, therefore I order that at least one of every gathering be properly framed and placed on exhibition at the time and place of holding every gathering, that is, the groups taken at Boston, Cleveland, Philadelphia, and St. Louis, and the group taken to-day, and to be taken at

each exhibition, that we shall have them framed, and that they shall belong to the Association, and always be placed there, so that it will be a little memento that you have been in this party to-day and that party to-morrow. They will always be there and belong to the Association, and next year we can look at them at Chicago, and they will afford us great pleasure without much expense to the Association. We will just ship them at the close of the session to the next place we propose to go to, without sending them back to any other place.

I will order that without a vote from the Association.

Mr. Webster has a notice to give in regard to the Shaw matter. There is no action to be taken, only a notice, after which we will have the pleasure of listening to the Rev. Mr. Frothingham.

Mr. Webster: Mr. President, the importance of this subject causes me to bring it before you now and interrupt the regular proceedings of the meeting. My object in doing that was that at our next session we will probably lose some of the members who are now present. We have had a former notice, but I will simply read these papers, and give you notice, nothing further, for there is no action to be taken; bring in your resolutions to-morrow morning instead of this evening. I will first read the suggestions of the committee, and then I will read the proposition.

It is suggested that the entire patent, together with the opinion of the official counsel of the Association, E. Y. Bell, Esq., of New York, together with the propositions of Mr. Shaw and the suggestions of this committee, be published as an advertisement in the official organ of the National Photographic Association, the *Philadelphia Photographer*, by the Association, for the information and benefit of its members.

It is also suggested that as the members of the committee, as individuals, having met and consulted with Mr. Shaw upon the specifications and claims of his patent, and having also heard from Mr. Rhoads, of the late Executive Committee of the Association, in regard to the reports obtained by them from the counsel of the Association, have come to the conclusion that it would be far better for us as individuals to make some amicable arrangements with Mr. Shaw for the use of his patent than to take the chance of being led into an expensive litigation which might cost each one of us from $1000 to $2000 before we are through with it. We recommend that the propositions submitted by Mr. Shaw to us be considered by all, and determine whether it would be best for us to make individual settlements with him, or form a company for the purchase of the patent, as suggested in his third proposition.

H. L. Bingham,
Frank Jewell,
I. B. Webster,
Samuel B. Revenaugh.

Now, Mr. President, I will read the propositions. That which I have read is simply the suggestions of the committee and the conclusion arrived at by them after a long consultation with Mr. Shaw.

Now I will read you Mr. Shaw's propositions. Here are three of them:

I propose that if each photographer wishes to settle this matter with me individually, that I will grant to each a license to use my patent upon either of the two following conditions:

*First.* If any one see fit to send me the waste saved by him to be reduced, I will work it for him, and return three-fourths of the amount recovered from all of his wastes.

That is simply giving him twenty-five per cent.

*Second.* If, however, he chooses to dispose of his waste in some other manner, I will then grant him a license to use my patent, upon the payment by him of a small royalty; say, about ten per cent. of the amount of his waste annually.

The third proposition is something in the order of the first. I will read it, however; it is as follows:

*Third.* If any members or photographers here present wish to form a company, to buy my patent outright, for the purpose of giving to the members of such a company free use of the patent, I will take the sum of $200,000 for my patent; or if they will organize a company with a capital stock of, say, $300,000, I will accept $75,000 in money, and $150,000 of the stock of such a company as consideration for my patent.

Now, Mr. President, I do not want to make a speech; I cannot make one at any rate. I do want to impress upon you the importance of inquiring into everything pertaining to photography, that is why I

have busied myself for the last two days to get on the inside track of Mr. Shaw's claim; and it is necessary for us as photographers and practical workers, and it is our bounden duty to inquire into this thing and to give Mr. Shaw a fair hearing. We must do that or we may not be able to do anything. Give Mr. Shaw a fair hearing in every instance and in every case, then you can settle it individually; and I think as to its coming before the Association as an association I shall certainly vote against it. Consequently I read this simply as a notice, and I say what I do to warn you against any harsh and severe proceedings. Treat Mr. Shaw as a gentleman, and inquire into his claims.

THE PRESIDENT: I would inquire if the specifications of the patent are here? We would like to know what his claim is.

MR. WEBSTER: The question was asked in regard to the specification.

A MEMBER: I remember discussing that question.

MR. WEBSTER: The only information I want to give, the question was asked if this was read why we should not suggest its publication in full, with the specifications of the patent.

THE PRESIDENT: I would ask Mr. Wilson if it will appear in the next journal?

MR. WILSON: Yes, sir; everything that has occurred here.

THE PRESIDENT: We will now have the pleasure of listening to the Rev. Mr. Frothingham.

## MR. FROTHINGHAM'S ADDRESS.

Permit me, ladies and gentlemen of the National Photographic Association, to begin what little I venture to say with a word of congratulation at the meeting of such an assembly as this, and of grateful appreciation of the honor of being invited to address it. So large an assembly of men and women whose aim is something higher than making money—an assembly invoked by the name and thought of art—is indeed something to rejoice at. And one may well ponder how he shall best use the only opportunity he can reasonably expect ever to have of addressing such an assembly. If I undertake to say but little it is not because I do not want to say much, but from unwillingness to trespass on your time and attention. The little I shall say is conceived in the deepest respect for the art and the aim which brought you together. It surely is an art and affords noble opportunity for the development of the artist spirit. Then, as we ministers are glad to welcome laymen into our assemblies and to hear our work presented from their point of view, so I venture to think that you may not object to hear from an outsider who knows that he knows nothing about your work, and will not presume, therefore, to instruct in regard to it, but simply looks at it from the view-point of the great public whom you try to serve. Into the adyta of the temple of the sun, of which you are the priests and priestesses, he will not presume to enter; but with his lay feet entering its outer courts, will venture simply on the expression of two things which the great public desire and need at your hands.

And first, I feel quite safe in saying that they want good pictures. This seems very little to say, I know, and yet it is much and perhaps the very best that can be said. The public, let me repeat it, then, want good pictures, and in both senses of the word. They both want them and need them. It is true they do not always know good from bad. Sometimes in our ignorance we are misled into taking the bad for the good, and do not at once recognize the best. Sometimes we accept those as the best which you know to be the worst. This is all true. But none the less is it true that we want the good, and in their name as well as in that of your own noble art, I pray you make a note of it. You may depend that the public never will look at a picture which it has once found out and knows to be bad. It may be deceived and misled.

Quackery has but too much power. But one thing it cannot do, it cannot keep us thinking the worst is the best. For the moment it may mislead, but only the best will command enduring approval. So we want the best you can give us. We want it to be ever advancing. Your work you cannot make too good. I hold this to be a wholesome and cheering word. It has sure hope for all who are trying to do noble work and to be thus artists indeed. Let them take comfort. The best work will tell. It will tell even on the quacks. The good worker will get recognition. Good photographers are like artists in any other sphere of life—in sculpture, law, painting, medicine, commerce, preaching—sure, if they will but be patient and loyal, of acceptance and honor at last. But they must bide their time. They must wait until we of the public, ignorant as we are, knowing nothing of their art, save its finished results, have found out that their work is good. Only good work can stand the

test. Only good work can keep favor and grow in favor. And once favor sets in, for the artist it is a flowing tide.

The next thing we of the public ask of you, is education. We not only want the best, but we want also to know what is best. That, no one can teach us so well as yourselves. We are ignorant, and we know it. In our ignorance there is a great humility, else would we not submit to what is sometimes put upon us. A man, whom I know of, was called in one day to see a photograph of his father. It was large and costly, and finished. The photographer placed it in a favorable light. Then, folding his arms, seemed to say, "There, what do you think of that?" He was somewhat astonished when the man answered, after close examination of the picture, "That is not my father." "Why," replied the photographer, "everybody calls it a perfect likeness." "I can't help that," he answered, "that's not my father." And then he pointed to the hard, soft, round, black, puffy face, every delicate line blotted out in which the Divine Artist had written the record of a long and honorable life, and from which its noble refinement was as effectually expunged as though Decay's effacing fingers had passed over it. In servile deference to a false popular expectation or to some unworthy conventionalism rather than in reverence for his own highest sense of truthfulness, the photographer had as effectually killed what might have been a noble living picture, as though he had struck down its original with a knife. We of the public are ignorant. We have queer notions, as you know full well. We have very odd expectations, as probably you have found out. Our ideas of you and your art are strangely absurd and extravagant sometimes—even ludicrous, were they not so trying and so sad. You are in the same case as doctors, ministers, lawyers, and teachers. If a doctor cannot understand every disease at a glance, cannot arrest it straightway, and even pluck the dying out of the jaws of death, he isn't much of a doctor.

A minister must of course not only know all about the Bible, be able to tell the meaning of every passage and word, even where it has no intelligible meaning, but all about the inscrutable counsels of God, and—well I will not say what else he is expected to be able to do and say—unless it be to talk instructively about their own matters to an assembly such as this. A lawyer, why he isn't worth his bread and butter unless he has the law at his fingers' ends, can browbeat the court, carry the jury, and acquit his client, though steeped to the ears in the evidence of guilt. And is it not the hard lot of the teacher to have to furnish not only knowledge, but application and brains? So you are sometimes expected to depict ugliness as beautiful, old age as young, awkwardness as graceful, and coarseness as refined. It seems hard and absurd and wrong. In a sense it is so, and it lays on you a burden which an honest man and a true artist does not quite know how to bear. He knows that he cannot do what is expected, and he will not prostitute his art into being a vehicle of falsehood or deceit. He will answer as a good shoemaker once answered me when I asked him if he could fit me: "I think I can, sir; but only on condition that we start fair. If you want a handsome shoe, I can make you one. If you want a shoe that will fit I think I can promise you that. But if you want a shoe that will fit and be handsome too, I can't make it unless your foot be handsome."

So the honest artist will say: "If you want a good picture, I will make you one. If you want a handsome one, I will contrive to promise that. But I cannot promise that my picture shall be both good and handsome unless the subject be handsome." And yet I fear that just this irrational and impossible promise is sometimes exacted of him. I fear that he finds or thinks he finds that we of the public care less about his honesty and the truthfulness of his work than about the good impression that work shall make concerning us. It is sorrowful and a shame. There is no true spirit of art in it. And as Joseph Fouche said of quite another thing: "It was worse than a crime; it was a blunder." So this is a blunder. Any one who has deeply studied any work of God—a human face, for example—knows that there is no human countenance which has not in its own individuality a more striking and expressive character than any human hand can give it.

The appreciative mind is keenly aware that there is unspeakably more nobleness in the wrinkles of even the most scarred and furrowed countenance—those seams and lines the tracery in which the great artist has sketched the history of a life—than there can be in any, no matter how "soft" looking contrivance, with two eyes, a nose and mouth, which is made to serve for a face instead. More nobleness did I say? I take it back and say that in it alone is nobleness, in whose preference the other is not worthy to be even named. The true artist knows that what ought to be done, what alone is noble, and alone is true art there, is as perfectly as possible, as richly and fully as may be, to catch and record that which is presented to it.

And so it is "worse than a crime," even a blunder for any one of us to ask aught else to be done. It is a sin. It asks another to present us as other than we are—nay, to make even the sun and Him who made the sun to bear false witness concerning us. But it is a blunder too, and therein lies a point of true interpretation to be put upon it. After all, is there not something profoundly pathetic in this desire to seem better than we are, and which the artist mind should seek fully to recognize and so correctly interpret? Does it mean, after all, "I want you to lie for me and make me out other than I am?" Does it mean rather, "I feel within me something better than the shallow eye can see; a grace, a youth, a refinement, in a word, a higher self, which is my warrant for existence, which I look to you to recognize and record."

Blindly, coarsely blundering though it be put, I venture to think this the real appeal made in the desire expressed to you to make us appear better than we seem; an appeal thus understood, as honorable to you as on the other understanding, it is degrading. You can answer to it not only with utter self-respect and honor, but with the noblest delight and inspiration. The story is told of the picture of a good but quite plain woman that some one remarked, struck by its beauty, "She looks as she will on the morning of the resurrection." Is there not high scope for artistic study and worth in catching rapidly and richly the best and amplest and most prophetic life of a countenance, and in so arranging the pose of the figure and the fall of light and shade as to make a perfect record of it? Is not that good work for the artist spirit? Does it not do good work for him in whose behalf it is done? A man does not like to be lower than he seems. Help him to feel that there is a higher beauty and good in him than his surface shows, and surely you have done the divine artist's work of helping him to be a better man.

But my point now is appealing to you to interpret thus nobly our bungling and blundering expression, to ask of you to teach us that the way of reaching the very end we seek is not through concealment or distortion, but through richest and most ample utterance of the truth. You are authority here as no one else is. If an artist tells a man that his own face in its strictest individuality is immeasurably better than any emendations can make it; that what he needs is not to blot out a point or efface a wrinkle, but with deepest fidelity to preserve and render every one, only striving to penetrate to and reveal the fullest and characteristic life, he will be believed as no one outside of art's charmed circle can.

In your hands is power. The power of the wonder-world of art. Do not underrate it. But whether it be great or little is of small account. It certainly is real, and, as real, the true artist will have it what it ought to be. He will teach all whom he can reach that in the perfect truth alone is the perfect beauty; that every thing and every person who has a right to be at all has a beauty of its own; that his own aim is simply to discover and most perfectly to render the highest, exactest, and completest life of each; and that in a word in the highest character is the perfect art.

Mr. Frothingham was continually interrupted by applause.

THE PRESIDENT: In the name of the Association, I have the pleasure of thanking Mr. Frothingham for his paper. I was not aware that he was going to give us a practical paper on photography; but that is one if we have had one since we came here. Here is an intelligent gentleman from the people, and not connected with us in any way; he rises and tells us what the people expect us to do. We have some very singular requests, and we often wonder what people mean, and he has had the intelligence to give us a great deal of information, and, in the name of the Association, again, sir. I most heartily thank you for your words of encouragement to us.

We now have the pleasure of listening to our friend, Mr. Southworth, on "The Use of the Camera."

MR. SOUTHWORTH: Mr. President, I will make myself as short as possible, and bore you as little as I can in introducing to you the order in going through generally of what I should do if I were in my gallery, and you should come in and want a picture, beginning with having a plate prepared, ready to be brought to me the instant I needed it. And to begin with, I heard a gentleman remark, since I have been here on the stage, of receiving a card of the name of the sitter. When my sitters come into the room I want to be acquainted with them. A card with their names on it would not suit me at all. I would take them by the hand, and relieve them of their drapery that they wish to lay off; make them comfortable; point them to the room where they can take care of and

dress themselves as appropriately as they please; then I ask them into the light-room. I do not leave them always in the dark. I bring them into the light-room that their eyes may be accustomed to the light in which they are going to sit. You go around into the room, and show them the objects of interest; view their faces in the different lights, and get familiar with their countenances, and endeavor to call out their ideas.

Remember that expression is everything in a photograph. All else—the hair, jewelry, lace-work, drapery of dress, and attitude—are only aids to expression. It must at least be comfortable, and ought to be amiable. It ought also to be sensible, spirited, and dignified, and usually with care and patience may be so. A little practice, with a friend to prompt, before a mirror, will save time, and very likely be the means of much increasing the satisfaction of those for whom the likeness is made.

The hair in its arrangement should assist the proportions of the head. If the head is too long and the face thin, the hair should widen and round the features. If the cheek-bones are too high and too broad, the breadth of the head should fall lower down, so as not to exaggerate features already too large. The hair may be smooth or lay evenly, but should never be sleeked or matted down; and the practice of shaving the forehead or pulling out the hair is altogether too bare-faced for a lady. It should be arranged in curves, waves, or curls, avoiding angles and horn-shaped protuberances. Caps, turbans, lace, and jewelry should conform to the same rules in aiding the general contour towards good proportions.

All lace-work should be light and thin, never massy: though it may be white or black, to suit the occasion. Flowing curls, for misses, over a low-necked dress, or for young ladies with handsome outlines of neck and shoulders, are picturesque and pleasing, but thin necks and projecting collar-bones require high dresses with lace, whether in fashion or not. The same remarks apply to arms and hands. If not filled well, with good outlines, let them be appropriately covered in a picture. Simple jewelry may be taken, but if heavy or massy it is not admissible, except for fancy pictures. If the figure is good, the fashion of the dress should show all handsome lines or curves and hide all that are not so. If the figure is not well proportioned the fashion of the dress should make it appear so as nearly as possible. It is ridiculously absurd for all females to adopt the same fashion—one exact size and pattern for all would hardly be more so. Whatever the fabric selected, avoid large figures or broad stripes.

Figures of the same material and color, as watered, striped, or figured dark silks, or very narrow-striped light silks, are well suited to the photograph.

Dark colors are generally more appropriate than light. Fair complexions may, if the figure is represented on a small scale. Remember that positive red, orange, yellow, or green, are the same as black, or nearly so; and violet, purple, and blue, are nearly the same as white; and arrange your costume accordingly. Rich figured shawls or scarfs and dresses usually show well in a picture. Full promenade, carriage, or riding dresses look well as such, although not suited for a simple likeness.

Infants, too young to sit upright, should be taken in their long frocks; but when a little older, their feet need not be covered; but the whole figure may be prettily taken if they can be kept quiet four or five seconds. As a good rule, let the frock be very low in the neck, with short waist, not tight, yet fitting the form, reaching to the foot; the sleeves very short and loose, ornamented with narrow lace. The skirt should be of woollen fabric, not too full, reaching about half way from the knee to the ankle, and worked, figured, or scolloped around the bottom. No other underclothing should be worn except of the thinnest and most pliable material.

If the child is taken half-reclining the bottom of the dress can easily be arranged to show parts of the bottom of the skirts, and the feet and ankles, and all be in good keeping and taste. The color of the frock may be pink, drab, blue, or any color which will show light in the picture.

Especially should it be permanently impressed upon the "sitter" for a photograph

that the artist has in reality no control over the actual expression of the subject, which is the important part of a photographic likeness. Having disciplined the features of the face until controllable, select an hour for sitting when you may be in your best mental as well as physical condition. Arrange dress and drapery in your most tasteful and graceful manner, so that it shall be at least to your own satisfaction. A figure laced to suffocation, a foot aching under the pressure of a too diminutive shoe, or the hair drawn and twisted so tightly as almost to lift its wearer from the floor, thus imparting stiffness and awkwardness to expression even in repose, are but a few of the obstacles with which it will be useless for an artist, however patient or earnest he may be, to contend.

The hour of departure on a tour or travel, a few hasty moments snatched from a shopping excursion in town, or between hurried morning calls and dinner, will not be likely to find one in a sufficiently fresh and quiet mood to yield to the hints the artist may desire to throw out expressly for the sitter's benefit. It has been said that "the most terrible enemy the photographer has to contend with is human vanity;" this is in a great degree true. The repeated trials which the artist finds it necessary to make to avoid time's rude finger-marks, to overcome the rigidity, languor, or sadness of expression, which diseases or affliction may have produced, are among his difficulties and discouragements. Let not these be increased by the infelicities of time or condition above referred to. On your own account, as well as for the sake of those who will value a correct portrait of yourself, choose the most favorable opportunity, as already suggested, and afford the artist ample time, without haste or nervousness, for his labor.

Next, select the artist in whom you have confidence, and whose efforts are to merit and sustain a high reputation; attend to his suggestions, and feel at home in his rooms that you may relieve him from all embarrassment and put him equally at ease in your presence. If you have ideas of your own, as to the light and shade of view of the face, suggest freely, and then submit all to him. If qualified for his business he will soon be able to transfer your likeness so as to render prominent the best features, and at the same time conceal or diminish those having least beauty. Aid cheerfully his exertions; and if, with the best efforts of both artist and subject, the result is a failure, charge it not upon his demerits nor be discouraged, but try again, and you will thus eventually be successful.

Again, have confidence in art itself. There is far more danger of undervaluing than overrating it. It may not, like painting and sculpture, be susceptible of the expression of feelings and emotions which have been awakened in the mind of the artist, and more nearly realized in his own conceptions. Though it be not to his inner fancy in the creation of scenes, and characters, and forms, which might have existed in a state of higher perfection and rarer intellectual refinement, yet the genius and spirit of poetry must possess the artist, so that he can ever elevate his characters in portraiture far above common nature. He must have power to embody the beauties and perfections of his subjects, and at the same time make clear resemblance and identity. He must keep ideality uppermost, and thus infuse it into the mind of the beholder, so that he be not degraded to a servile copyist, and his art to a mere resemblance. And although, as has been already hinted, he who in painting and sculpture can work to his own ideal, has a wider range in portraiture, and can bring colors as well as forms of nature to his aid; yet in the nice production of light and shade, which is the perfection of modelling, the photograph will be found to surpass the artist's best efforts; being capable of representing independently action, expression, and character, to a great extent; and in some instances it approaches very nearly if it does not equal these higher branches; thus developing beauty in grace of motion, and in repose, which is the first object and the supreme law of all art.

Now, in the first place, if the President will excuse me, I will place him in the position in the gallery, as I would if I would take his picture.

I am standing now in a bad place; but I

cannot go further back than this. The first question is, where shall I place my camera? Suppose his position is right, it happens to be a very bad one; suppose it right, where should I place it, about here in this position? I place my camera or tube here; I am going to set his chin right down against his shoulder, and bring the background up there, and on this side in the same way, leaving three inches of background of his face against his coat-collar. I carry it to the top of his head; I am so near him that there is no chance to turn.

Now, gentlemen, one-half of the pictures in your hall are in that same condition, and they are not worth burning up. (Sensation.)

Do not think I am harsh; I am talking art. I want to send our pictures to be hung in the Vatican with those of Titian and Michael Angelo. What sort of Moses would it be, if the head of Moses were sent down there and his coat-collar coming up three or four inches above his head? I intended to ask some lady to take this position, but I cannot do so now.

Suppose the light is going to reach twice as far as this (indicating), I carry the line across the top of the shoulder. You see I am not far enough off yet; I will still extend it farther out. I cannot get far enough away in this room to get his chin by here. I run the line from the top of his shoulder to this position, set up comfortably and strong, as if there was no back to this chair at all.

Mr. President, I sympathize with your lungs; I am afraid they will give out. That is just the position for a photograph. I cannot help thinking that the muscles are aching. I want you to sit as though you had dropped down there, not using a single muscle. That chair is not high enough for you.

THE PRESIDENT: I am free from the back of it.

MR. SOUTHWORTH: I will have to ask you to straighten your figure if possible, and turn your head towards me. For this purpose I go far enough to carry the line of the cheek to this position. I am down on a line now, and I carry it back to this position. If I bring the camera up here I am in a wrong position.

Mr. President, stand up; I am about to show you the figure of a man. Here is the figure of a man. I do not think there is any mistake about it there. I can now let the camera down in that place, just one head below, and not eight or nine or fifteen feet off. We will let it down so much (indicating). Here I have the shoulder down against the background, and the chin coming up here, and here back against the background.

Now, ladies and gentlemen, please remember some of those awkward—I will not say awkward, they are beautiful—those prints, chromos, and French pictures; they are put upon paper boxes and furniture, just remember what sort of necks they have, how they are arranged, and see whether you see the chin coming down here; bear that in mind. I do this so as to set you to thinking.

Now I wish to make a picture of President Bogardus. I will ask him to arrange his position. Suppose this is his position. Now I ask him to stand in a position of strength. That is not a position of strength; he is standing on one foot. Place yourself squarely on both feet, and stand easily and squarely and firmly. Stand so that if I pull you I would not pull you down. Now you stand without tiring your muscles.

Now, gentlemen, I want to go twenty-four feet from Mr. Bogardus, and I want to lower the instrument one foot Now I do not say you can have this position always. I want the largest lens that you can possibly give me, or that I can get, to take his picture twenty-four feet off; that is, to make it the size of common cartes. I do not want to be any nearer. I mean those large heads on the common cartes, called John Bull cartes, common cartes, common carte size, large heads.

Now I do not want to be less than twenty-four feet off. I want the largest lens that I can get to properly focus for that size. Your lens should be at least no less than five inches in diameter. Now my friend Fitzgibbon, of St. Louis, suggested a very nice way of shortening the time, but now I want to make it just a little bit shorter. Instead of using your instrument diaphragmed at all, use it entirely open without

any stop, and that will shorten your time, and when it takes thirty seconds the old way, it will now take sixteen. I will make the same in ten, and have the eyes as well defined as you can ask. If there are any spots or blotches, you have to touch them out on the negative. You will thus have a softer picture than you can make by retouching, for to save your lives you cannot touch it without hurting it, and men who are making good pictures do the same thing. I do not say if there is any defect that I would not put a piece of soft prepared chalk on, but I say let it alone. As to the shadows, you cannot touch a shadow without injury. You must place your picture so as to have a good light upon it without shadow and without retouching.

Now I have placed my camera out here. I will say to him, Mr. President, I have taught you this before, but I will have to say it again. Before I begin to raise my camera, I have said to my sitter, now there are some things I would like to have you not think of. I cannot help it when they are sitting for a picture, and after I think I am ready for it, I will direct them as to the line of vision. You will please to look at that point if you want the picture to be looking at you, and I must make it so that it falls directly on that line on the edge of the tube or over it, and I want you to look as though you were looking ten miles out at sea. You can open and shut the eyes with the most perfect freedom. You must give a light in which they will not blink. I make it as comfortable as I can, and pay attention to that point while I am taking the picture. The eye must be used at its longest range. You must tell them to look just as far as they can, and let them practice on that look, and when they look up they will place the eyes in just the same position as if looking from the top of the Statehouse down Boston harbor.

Now I have instructed him in that position. Now we will see what sort of picture we make. The sitter will please now look at that spot. As you are looking, the line of vision of this eye coming here, and you will have it right in the picture. You will not get it cross-eyed. You go into that hall to-morrow and you will find that one-half the pictures are thus made. The eyes are this way and that way. They are just cross-eyed. Now, if a person is cross-eyed, he never should be drawn so to that extent. In some of those larger pictures, the eyes are looking at you as if you were only eight feet distant. Now, what is that for expression? It is dead. You cannot wake any life in it. The expression is not good for anything; the eye is not good for anything. I want you to look at the finest pictures you can in some of the gentlemen's parlors or in the galleries in New York, Boston, or Philadelphia, or in foreign countries. Go and look at the finest pictures, and see what sort of eyes you can find. But you never see any eyes like those I have described. That way of looking spoils the picture.

I say, then, with regard to the direction of the eye and the opening and shutting of it, it should be perfectly natural. Now I have arranged the light. I have a skylight that is pretty high. I cannot have too much room. I have just enough light, so that the sitter can open and shut his eyes easily without blinking. I wish the light came in at the top; if it does, I put it out of the way, so it goes over the hair, but do not let it touch or cover the forehead at all.

Now, gentlemen, I do not want to use any hand-screen. I have arranged my light so it will be comfortable. I have cut it off. I want to know how it is going to look from beginning to end. Somebody else might do it; I do not want to do it. I want to see that it is an accompaniment to my picture. It must not be large—not larger than a lady's parasol with the handle broken off; of plain green silk; no matter if there is nothing else, you may have a transparency; put it a little back of you; do that, and you will not have the woolly heads such as are seen in the pictures hanging in the galleries. I tell you that one-half of them are spoiled for the want of that very thing. The lights are unnatural, and we do not want to see such lights. If we happen to be in a position where the light falls so, we do not want to have the picture so.

So much for the arrangement of the

light. A single word now should be said with regard to reflected light. Having arranged the light so as to give the shadows the diffused light and shadows as I want them, then I want to look out for this little point, and that is, to the light in the eye; and if you get two points, it will be bad, but if you get one, and this reflects the light, why, it looks like one of those that has a film growing over it. The eye is dead. The first thing is to get a good eye, and more than that, the eye must be so made in addition that it will look like a little star, but one light.

There is another thing, ladies and gentlemen, and I wish you would look out and see if you can find it. See if you can find the reflection deep down in the eye which gives the eye its transparency. When you get that transparency, you will find it is the same reflection deeper down in the eye, and a little off on one side. It will bring the eye out and round it to you. Your eye will be looking at you somewhat flat; if you do not look out you will make your eye flat entirely. I come then to the reflected light, this is to be used near to the face; if you bring up a reflector to the face you can give a light shiny strip here. You will find the effect is not a good one. If you do it, you must reflect the light in such a way as to diffuse it over the face

I now come to another thing. Suppose this to be the hardest face you ever saw in your life, instead of the fair fine face it is, now I will turn him into the shadow, take him away from the light and be three times as long in making his picture as I would be otherwise.

A gentleman, yesterday, told us about using the yellow and the red, and some other light, and throwing them on to the face. I will not go into the philosophy of that. I will let you study it out. If whatever he does, prolongs the time on a hard face it will help him to make a better picture, but I will say to you that in the actinic rays, there is not one particle of the action of the yellow, or one particle in the red, or one particle in the green. The actinic rays go beyond the purple and beyond them all. They are another class, and you may light this face up in a good light, and place up there your red, orange, and yellow, so that the light from them is all reflected on the face, and you will not change the time of taking his face one single second, and you could not tell that they were there at all.

Gentlemen, I spent something like six or eight years in experimenting with all sorts of colored glasses. I have got them all. I do not know how much they cost, but there is a dreadful pile of them. I have used ground-glass in every shape, and in every position, in relation to the camera. I have one prism which cost me four or five dollars; a large handsome prism which left the sunshine on the wall. It is very good to look at, but it is not worth anything. It is very singular how minds follow when experimenting alone, in the same direction, when they are following experiments in that way without science to guide them. In these experiments in that way, it takes years to find out little small truths.

I say then, have your tubes as large as your tubes can be, make your pictures as far off as you can get the camera, twenty-four feet distant; with the smaller cartes, get a little nearer, or go further off, and you will find that you will make your picture soft. You will not need to retouch. You will have a good effect where you have this softness; you will have light where you have black, or the kind of blacks you have now. Nearly all of the so-called Rembrandts—I speak of them so as to call your attention to that class—certainly one-third of all there are, indeed, nine-tenths of those made in the Rembrandt style, are not looking as I have described. Take it while the light is run into the shade; on that side of the face there is not one bit of that black or hardness on the face. It is warmed up with reflected light and with color. This is terrible; it is terrible to the artist; it is not true; it has simply been quackery from beginning to end, and the worst kind of quackery, to take a person's face with the shadow next to you; it is all proper the warmth and the shadow are there, so when you look at it you will understand it. You want to make the picture so that every time that you take it up you will see new beauties in it, and so you will love to turn

over an album of such pictures, every single day to examine the effect of fine photographing, and I tell you it is done a great many times, by a great many artists constantly, and by some constantly, but gentlemen it is not done by true artists at all. Gentlemen, you will excuse me, I am only talking for the very highest reach of our art, but you will tell me that I have aimed a little above it. I did not, but never mind the aim; you must aim high and you will not be down there long, you will be coming up, and if you never get to the top, you will have a feeling that you are making the very best effort, and perhaps, if you live long enough, you will reach it. I believe that is all. (Prolonged applause.)

THE PRESIDENT: I would merely say, in confirmation of the remarks that Mr. Southworth has given us, and the ideas which he has brought out, that Mr. Fisher, in New York, who is a celebrated portrait painter, I remember that he always told me that I never would take a good picture until I had a platform twelve or fifteen inches higher than the common platform; and when he placed me for painting, he placed me on a platform so as to look up at me. It is as Mr. Southworth says; let us remember it, and, instead of pointing the camera down, let us point it up.

The next thing on the programme is the "Heliotype Process," by Mr. Edwards; and immediately after that, "Outdoor Work," by a number of our own members.

MR. EDWARDS, of England: Mr. President, the heliotype process is an attempt simply to put photography into the printing-press. It is founded, like all the prominent photographic processes, on the action of light in the presence of bichromate of potash. The action of light on gelatin is simply this: gelatin absorbs water very readily in its ordinary state, and if gelatin has added to it the bichromate, and is then exposed to light, it no longer is absorbed by the water, so that we take this substance and expose it to the light, under a photographic negative, and certain parts of the gelatin will be acted on by the light, and certain other parts will not be acted on, and certain parts partly acted on by light, we shall have the sheet of gelatin in parts completely absorbed by the water, and in parts not at all absorbed by water. Now, if we take such a sheet of gelatin, and put grease on to it after the water has been put on to it, where there is no water it will adhere—that is, where the light has acted completely, the grease will adhere, simply because there is no water—where the light has partly acted it will partly adhere, and where it has not acted it will not adhere, because the grease will not mix with the water.

Now that is the principle which is at the bottom of all photo-mechanical printing processes. It was discovered nearly twenty years ago, and was patented in almost the words I have given to you. Now, after that, it remained only for workers in the same direction to discover a practical application of that method. In my practice of the heliotype process, my method is, after all, a very simple and sure one, and a short one, too. I will describe it, and not occupy much time in doing so. I am very sorry that I have not here now a printing-press to show you the actual operations of the art, and although I had secured the loan of a press, I failed to get an expressman to bring it here, but I hope to have it in operation in the morning in the Rink. My method of operating is this: A sheet of slate or a slab of marble, or in fact, any surface perfectly level, is rubbed over with a solution of wax in ether; on to this is poured gelatin dissolved in hot water, to which is added bichromate of potash to render it sensitive to the light, and burnt alum or tannin, or some equivalent substance, to make it fine and durable; after this has got hard, it is taken off in sheets, and reared up against the wall in almost any convenient drying-room, and, in the course of a few hours, is dry; the wax on the back is then removed from this support, and it assumes simply the form of a thin sheet of paper.

In this form and condition it is used just as a sheet of ordinary photographic paper. It is exposed to light under an ordinary photographic negative in an ordinary photographic printing-frame; as soon as the image is impressed on it, and it needs no chronometer to show when the print is impressed, you simply have to open the frame

in the ordinary way, and as soon as the image is visible, the action is complete. Of course it would be impossible to make a print in such a condition as that; we have to attach it to a support, in order to keep it in a proper condition for printing in the printing-press. To do so this sheet of gelatin is taken and put under water along with a sheet of metal or some convenient composition; this one is simple pewter; a sheet of gelatin, and pewter plate, are brought together out of the water, and we want now to get rid of the water between the two surfaces; for that purpose we use an instrument called a squeegee, which is a combination of wood and other material. Such a machine is used for cleaning sidewalks. With this squeegee we squeeze out the water between the two surfaces, or nearly all the water. The gelatin is a natural absorbent of the water, and naturally sucks it up, for in the course of two minutes we have a sheet of gelatin, attached to its metal support by atmospheric pressure, and in that condition it may be used, and placed about in almost any position.

Now, in this condition it is ready for the printing-press. It is put into an ordinary Washington printing-press, and an ordinary lithographic printing-ink is taken, with an ordinary letter-press roller, and the operation of the inking is simply that kind of an operation, and we find the gelatin has this property beyond the property of the ordinary lithographic printing.

It is done with the parts partly printed on lightly with a thick ink, then the parts more acted on by the light, they attack the ink with a little oil, which will only adhere to the deepest shadows; if we take a thinner ink, we shall get the half tones, and not the depth of the shadows, so we combine the two. Sometimes we use three or four inks; first a thick ink, then an ink not so thick, and so on we take in succession thinner ink; then we take the impression, and this completes the picture. I would say that the use of this paper on the outside is simply for the purpose of keeping the margins clean. I am very sorry that I cannot show you the operation and working of the press, but from my description, you can have a fair conception of it.

But you cannot witness the operation of pulling an impression. Here now is an impression which was pulled from that plate. You can see it and examine it for yourselves; here is a piece of gelatin with the picture upon it, and here is an impression taken from that sheet of gelatin.

There is one small point, gentlemen, in the process of printing. It will be remarked, it is necessary to wet the plate over with the impression just as the wetted stone is wetted over in order to keep up the requisite moisture. Now the paper, that is not wet, but a certain amount of moisture is transferred which produces the desired effect in single printing. Without any other press we can get the effect of an India print. We mix with the water some coloring matter, and by means of the pressure a certain amount is squeezed out into the paper; so here, you see, in this case we have a copy of a Rembrandt picture. We get the copy of the tints also, and have a beautiful picture. I may say that here are a number of pictures equal to the engraved copy in every way; I do not say that they are equal in all respects, but they are equal to the silver photographs, and I mean to say that they are much cheaper and can be had for a variety of purposes. This manner of working can be used for the illustration of books and periodicals, and works of art, and you get the effect of a photograph—all the lights and shades—and they are of a great deal of value.

The President: Mr. Edwards hopes to have the printing-press in operation in the morning, in the Rink.

A Member: Are we to understand that this process is free to anybody who wishes to try it?

Mr. Edwards: Well, no; I am sorry to say that it is not free for everybody, and for this reason: I have spent a great portion of my life in experimenting with it, and it is only fair that I should try to get something out of it. I may say that, as to this country, it is in the hands of Messrs. James R. Osgood & Co., of Boston, the well-known publishers.

The President: Mr. Bowman wishes me to announce that the stereoscopic groups Nos. 1 and 2 can be obtained by addressing him, at Ottawa, Ill.

The Committee on Insurance will meet after we adjourn.

We will now hear some remarks on "Outdoor Work."

I am glad to introduce to you Mr. J. C. Potter, one of our members:

MR. POTTER: Perhaps you will be glad when I inform you that I have not much to say on this subject, and therefore shall occupy but very little of your time, and shall not bore you with any formulæ, and shall not tire you out by any chemical analyses in this process whatever. I will just give you something practical on

## WHAT I KNOW ABOUT OUTDOOR WORK.

MR. PRESIDENT, OFFICERS, AND MEMBERS OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION: When I received a letter some weeks ago from our esteemed Secretary, Edward L. Wilson, informing me that President Bogardus wished me to take an active part in the practical discussions at the Buffalo Convention, and intimated that he would be glad to have me tell "what I know about outdoor work," I was somewhat nonplussed, and it was no easy matter for me to make up my mind as to what I had better do in the premises. The question revolved itself in my mind in about this form: Should I do, as I feared a good many would do, refuse to exhibit my ignorance before all the savans of our Association, who had made outdoor work a specialty for many years, or should I try, at least, to make our coming together as interesting and instructive as I could, by showing a willingness to contribute what I could of my *ignorance*, and thereby perhaps call forth from the more learned and experienced something that would enlighten and benefit the lesser lights of our progressive Association? I chose the latter "horn of the dilemma," and consented to give what little information I could, in my way, on the subject of outdoor work.

I would state right here that I am not a professional landscape photographer, and did not resort to outdoor work simply for its pecuniary benefits alone, but was in a measure driven to it by circumstances as well as to gratify my taste, which runs in that direction. Some three years ago I came to the conclusion that I would be obliged to give up photographing on account of a lung difficulty which threatened me quite seriously. I had noticed, however, that a few days of recreation in the open air always relieved my difficulty, and I resolved, therefore, to turn my necessities for outdoor exercise to what account I could; and how could I do it in any better way than to gratify my desire to photograph nature as it came from the hands of the Supreme Architect?

Now there are a great many photographers who are anticipating giving up their profession on account of poor health, induced by close confinement to indoor work. Now let me volunteer my advice to all such. Turn your attention to outdoor work, for a few days at a time, and I am positive in the assertion that you will be benefited by the change. Carry the tent and tripod for a few days; climb the hills or descend into the ravines, look up your subjects, and make from ten to fifteen exposures in one day, and you will be very apt to get an appetite whether you get any good negatives or not. A little more of God's pure oxygen is what every artist needs, and he cannot get it if constantly confined within brick walls, and more especially in our large cities. What has benefited me may benefit others. I did not expect to make outdoor work pay, financially, but in that I was disappointed.

When I made passable good stereoscopic work I had a demand for my pictures. I devote (or did before I was burned out) several days during the summer and winter to photographing such objects of interest and beauty as I could conveniently reach by a two-hour drive from my locality. I am aware that all photographers are not conveniently situated to good subjects for outdoor work, and yet but few are so situated that they cannot find some objects of sufficient local interest to make it an inducement to try their hands at outdoor work. With all the beautiful scenery surrounding my little town, and which ought to have awakened or stirred up a little enthusiasm in me to photograph it, yet I did not do so until I had been there about ten years. I had frequent calls for pictures of our scenery from strangers and visitors, who had spent a few days in our quiet little town, and when I would inform them that I had nothing in that line they would seem astonished that I had plied my vocation so long and so near such good scenery and never taken the time and trouble to photograph it. A want of time was invariably my excuse. And I presume that is the excuse of the majority of indoor operators.

There are many good subjects for stereoscopic pictures in almost every locality, though they may not be noted for any peculiarly romantic features. Rocks, in close proximity to water, with an old mill, or a waterfall, an old dilapidated building, and hundreds of other things,

seemingly insignificant, are or may be made beautiful if properly copied from the best standpoint. Many scenes which have no particular attraction to the photographer may be the very beau ideal to the eye of a purchaser of a picture. Some views which I have considered of no particular value, while making my negative, have proved to be some of my most salable pictures. All who buy views are not judges of good work or beautiful scenery any more than all are good judges who sit for and frequently take a poor picture, because they think more of their own judgment than they do of the honesty and good taste of the operator. No photographer should underestimate the beauty or value of the scenery surrounding his locality until he has weighed it in the balance and found it to come far short in a picture.

If outdoor work will improve a man's health, that consideration alone should be a sufficient reason for his devoting a portion of his time to it, if it does conflict somewhat with other business.

But I do not propose to treat so much upon the subject to be photographed as upon the process of securing certain results from the subjects when properly selected. No two photographers would discover the same beauties and attractive points in a landscape. What might seem tame and uninteresting to one with no specially attractive features might appear to the other full of interest and beauty. Therefore every photographer, who turns his attention to outdoor work, must be left in a great measure to follow his own inclinations and taste in selecting and grouping objects of interest and beauty. Experience will soon teach the outdoor worker that much depends on some one object embraced in the foreground; not too conspicuous, but standing in such relation to other objects as to add beauty to the perspective. Sometimes it is necessary (in photographing objects which we are anxious to represent in their proper magnitude) to introduce some living object—a man, boy, or dog—anything which will create in the mind a starting-point from which to judge of heights, depths, or breadths.

As a general thing there is much more interest in a short view than there is in a long one, which comprehends a large amount of territory. There may be instances "where distance lends enchantment to the view," but it is seldom the case in landscape photography. Mountain scenery may be an exception.

So far as my experience has gone, the chemistry of outdoor work does not differ materially from indoor work. I use precisely the same materials that I do in my gallery, with such changes in compounding them as the nature of the object to be photographed requires. If a winter view is to be taken, I use a light (or thin) collodion, which gives plenty of detail but not great intensity. For summer views I use a heavier (or thicker) collodion, especially when the object is not well lighted. I always carry my collodion into the field, winter or summer. in such a form that I can change it to suit any subject, by using more or less of the heavy or light collodion and mixing them as the occasion demands. If properly mixed it can be used in the majority of cases without any change being necessary in the field; but I have found subjects quite frequently which would not give a satisfactory negative only when I used a very light collodion with a weak developer; and, *vice versa*, good results only from some subjects when I used a heavy collodion with a stronger developer. I generally use the simplest developer; iron and acetic acid, and only enough of the acid to make it flow evenly. Alcohol I never use in a developer, unless driven to it by necessity, and I always try to avoid the necessity by removing alcohol from my bath by evaporation, as often as it begins to annoy me. A few drops of alcohol in a developer may not be injurious, but I never could see any good results from it as long as the bath was in a good condition. I work as near as possible a neutral bath. Only a slight trace of acid is sufficient, to keep the deep shadows from fogging. I use in my bath from forty to forty-five grains of silver to the ounce.

I never fix my negatives until I return to my gallery. After developing and rinsing I flow them with glycerin and water mixed, about half and half, or enough water to make the glycerin flow evenly. There is not the slightest danger of their spoiling if they are not fixed for one week after. A good rinsing before fixing is all that is necessary. Redevelopment may be resorted to, or intensifying, as may be necessary.

Here I would caution the amateur, or he may spoil his first batch of negatives as I did mine, by getting too much intensity.

The peculiar snowy appearance which is characteristic in nearly all stereoscopic landscape views can be avoided only by keeping down the high-lights. Sunlight is very apt to give a stereoscopic view that snowy appearance, more or less, when all due precaution is taken to avoid it. Careful exposure and development is absolutely necessary, losing none of the silver by carelessly slopping on the developer.

Now, Mr. President, if in these few remarks I have dropped a hint, or made a suggestion that will in any way assist a new beginner in outdoor

work, my object has been accomplished. To the professional outdoor photographer I have not a word to say, for he has long since learned all, and much more, than I have here said.

The two collodions which I use for field work are as follows:

No. 1.

| | |
|---|---|
| Alcohol, | 10 ounces. |
| Ether, | 8 " |
| Iodide of Ammonium, | 81 grains. |
| Bromide of Cadmium, | 35 " |
| Cotton, | 90 " |

No. 2.

| | |
|---|---|
| Alcohol, | 10 ounces. |
| Ether, | 10 " |
| Iodide of Ammonium, | 100 grains. |
| Bromide of Potassium, | 45 " |
| Cotton, | 120 " |

No. 1 is a light collodion, working fine detail, but not great intensity. No. 2 is a heavy collodion, working less detail and quite intense. Combining the two properly gives you almost any result you may desire. Good judgment and careful manipulation should make you master of the field.

Mr. Potter was listened to with great attention, and concluded amid applause.

THE PRESIDENT: Mr. Webster would like to make a remark or two, and then we will proceed with our subject again.

MR. WEBSTER: I am not going to bring any business here before the Convention, but I would like to reiterate the remarks made by our friend from Boston (Mr. Southworth). It has been my intention from the beginning of this Convention to the end, at the first opportunity, to apologize to you and to others who have been here for my forwardness in the action of this Convention.

I regret to say that I saw things lagging at first, and felt it to be a necessity, and my only excuse for my forwardness here has been that I was anxious to facilitate business, and if I have succeeded in it I have accomplished my object, at the same time presenting myself before you a great many times when I did not want to do so. I felt that the business was flagging, and some one must take it up, and that is my apology. (Applause.)

THE PRESIDENT: We have heard a very interesting paper on outdoor work, and we now have several others,—some by gentlemen who are present, and who will read them, and others by those who are disappointed in not getting here, but who still felt enough interest to contribute to the value of our meetings.

I am glad now to introduce to you Mr. Husher, who will continue the subject.

Mr. Husher read as follows:

## LANDSCAPE PHOTOGRAPHY.

MR. PRESIDENT AND BROTHERS OF THE N. P. A.: The duty assigned me is a very pleasant one, and I feel myself honored in being selected by you, Mr. President, to discharge that duty; yet while I appreciate the honor conferred, I nevertheless feel my inability to fulfil the task, knowing that there are those here who have had much more experience in this department of photography than I have, and consequently are much better prepared to furnish a practical paper on the subject. And, sir, allow me right here to state that the only reason I consented to furnish this paper was that I might be of some benefit to those of my fellows who, like myself, are toiling to obtain all the information they can concerning our beautiful, grand, glorious, and almost divine art.

To say that I LOVE landscape photography, would not be a strong enough term for me to use. I love our noble art in all its departments; yet when I am engaged in *this* department of the work, I feel almost an inspiration, and engage in it with all my soul and power. How can he who loves nature desist from wandering forth amid its beauties and grandeur? I often wonder why so few photographers take an interest in landscape work. And yet I might ask, why are there so few who take *any* interest in the business whatever? Why is it that, among the thousands who are engaged in the PICTURE BUSINESS, there are so few who attend these annual gatherings, or take any of our valuable journals? I presume they *know* enough; they could learn nothing here. I suppose they *like* the *business because* they can make a living at it. They are *mechanics* (and very poor ones at that), not artists; they see no beauties in it at all; they *know*—Well, read Lee Knight's "Tinkering Jim," and you have the idea.

But to the subject to be developed. Landscape photography is so wide, so deep, so exten-

sive, and opens up to the true lover of art such a vast field of beauty, extending as it does from "pole to pole," and from the "rivers to the ends of the earth; yea, to the starry dome above us amid the clouds." How the soul of the lamented Linn must have swelled within him, while in bright sunshine above the storm-cloud he photographed that grand scenery as those clouds dashed and rolled in grandeur along the sides of old Lookout Mountain! Or go with Waldach, as he, with camera, brings to the light of day the beauties of the Mammoth Cave.

While others, by the aid of our noble art, lay before us the grand scenery of Yosemite, the Yellowstone, the Rocky Mountains, and hundreds of other wonders of our own country; while still others show us the cold, frozen ice-fields of the far northern regions,—I may ask what other than photographic art could reproduce, with such unerring accuracy, these, with thousands of other grand scenes of earth?

There is so much in this subject, such a vast field spreads out before the mind, that I know not where to begin or what part of the subject to touch.

I shall, therefore, confine myself principally to my own experience, so far as the practical part of this paper is concerned. There has been a great deal of theorizing, speculating, and experimenting with the various dry processes known, and that, too, by many eminent landscape photographers, with a view of simplifying and reducing the materials used to as small a compass as possible; yet, so far as I have been able to see, they have all fallen far short of the end in view. Where they have gained in one point, they have lost in another, and all have had, to me, this objection: that of uncertainty in their results. I have found none of them that gave satisfaction in all points. And while I object to these various dry processes, I admit that it would be of almost incalculable value to the landscape photographer, could there be a dry process discovered (and not patented) that would be sure, safe, and could be relied on in the certainty of its results. And, at the risk of being called an old fogy, I must say, as yet there has no dry process been discovered that gives the desired results in all particulars: they may have their advantages, but their *disadvantages* more than counterbalance.

In my practice I use a wet process altogether, and, with the exception of bath, collodion, and developer, is as little cumbersome as the dry, and I am sure the certainty of results more than makes up for the little addition of bulk. Gentlemen, it is not necessary that you should take a carload of materials with you for field work, many of them only taken for fear you might want to use them. There are many points that might claim attention here; but time will not permit more than a mere mention of them. I shall not take up your time by telling you what time of day, what kind of day, what kind of light, what position with reference to light, or time of exposure, are to be observed in order to produce the most pleasing effect in the resulting negative and print. Although there is an illimitable field here for the artist's study, each individual student must be governed by his own tastes, judgment, and surrounding circumstances in these matters, provided, however, these do no violence to true art.

If he has a love for the beautiful and will persevere, he will surely succeed. If, on the other hand, he simply goes mechanically to work, no art in his soul, he will make a miserable failure and a *more* miserable picture, if picture it might be called.

I have tried many ways to simplify and bring into as small a compass, and have with me, just as few things in landscape work as possible, and I have found nothing so simple, compact, and easily worked, so far as chemicals are concerned, and at the same time so sure in their results, as that given by Mr. W. T. Wilkinson on page 182 of the *Photographic World* for 1872, and yet I have, to some extent, in my practice simplified that.

My plates I always prepare by albumenizing them. My negative bath I use 30 grains strong in warm, and 40 in cold weather, slightly acidified with C. P. nitric acid, diluted with six or eight parts water, and added to the bath a few drops at a time until it produces the desired effect. My collodion, I use

| | |
|---|---|
| Ether and Alcohol, . . | equal parts. |
| Anthony's Soluble Cotton, No. 1, | 4½ grains. |
| Iodide of Cadmium, . . . | 6 " |
| Bromide of Cadmium, . . | 3 " |

I have a lot of this collodion made last July, and it works most beautifully.

Developer, I use the same as given in the article referred to above of Mr. Wilkinson, and will say it is the *best* I ever saw.

| | |
|---|---|
| Water, . . . . | 66½ ounces. |
| Iron and Ammonia, . . | 1 pound. |
| Iron, . . . . . | 1 " |
| Sulphate of Copper, . . | 1 ounce. |

This I denominate No. 1.

| | |
|---|---|
| Water, . . . . | 64 ounces. |
| Acetic Acid, . . . | 6 ounces. |

This No. 2.

To mix for use, I usually use half an ounce of No. 1 and five and a half ounces of No. 2. This gives me a developer of about fifteen grains. Of course you can make it either stronger or weaker as you may require.

Now, when your negative is fully developed, drain off the developer and flow the plate with solution No. 2. Let this remain on the plate a minute or two, keeping the plate slightly in motion: drain *this* off; repeat this three or four times; drain it off nicely, and set your plate in the sun or open air, free from dust, to dry; when dry, you can place it in your plate-box and keep it until you are ready to fix, if that is not for six months. But observe this, when you get ready to fix, wash the negative well under the tap before you place it in the fixing bath. I always fix with cyanide of potassium, using it quite weak. As soon as the negative is fixed, wash thoroughly, and you will find a beautiful fine negative, complete both in detail, contrast, and intensity. Should you, however, find it necessary to increase the intensity of your negative, you can do this either with a weak solution of mercury or with sulphuret of potassium.

I might extend this paper much further, and take up printing, toning, trimming, and mounting the prints. But I presume I have already occupied too much of your time, hence will close by saying that if, by the presentation of this hastily-written paper, I have benefited any one here, or have said anything that will increase your zeal and earnestness in pressing forward to higher attainments in the study and practice of this very interesting and beautiful branch of our art, I shall feel amply repaid.

(Applause.)

Mr. Husher (resuming): I would simply say that I have a lot of this collodion on hand, made a year ago, and it works as well as any collodion I ever tried.

The developer is the same as referred to in the article above. I have given you a developer of fifteen grains strong; you can vary this as circumstances require, by making it stronger or weaker.

Now a most important point I consider in outdoor work to be in the management of the work of the photographer is, that when your negative is flat, turn off the developer and flow with the solution, remembering to let this remain on the plate but a few minutes, keeping the plate slightly in motion; drain this off, and repeat the operation, say two or three times: when that is done set your plate out in the open air and there let it dry, and then you can take the plate home with you. You can fix it whenever it is convenient, that is, one week, six weeks, or six months: it don't make a bit of difference; the plate is good, and the reason of this is obvious. The benefit I derive from this is that you do not have to take a particle of water with you to wash the plate; you take it and flow it with that solution, washing the developer, and that is all. (Applause.)

The President: This is just what we want. Mr. James Mullen, of Kentucky, also has a paper on this same subject. Mr. Wilson will read Mr. Mullen's paper, at the request of the latter.

The Permanent Secretary read Mr. Mullen's paper as follows:

## LANDSCAPE PHOTOGRAPHY.

Mr. President and Fellow-Members of the Association: I received a short time since through our worthy Secretary, a very kind and flattering invitation to prepare a paper on "Outdoor Work," to be read before the Buffalo Convention.

I approach the subject with considerable hesitation, as so many abler heads have already gone over the same ground in its every detail; but my love for the art and its advancement prompts me to give a short sketch of what I have learned from practical experience, and gathered from the study of nature and the works of others.

There being such a variety of "Outdoor Work," I shall treat only of "Landscape Photography," and make it as brief as possible.

Too many photographers imagine that it is only necessary to point the camera at anything out of doors in order to obtain a landscape, utterly regardless of light and shade, composition of the scene, or general effect to be produced.

It is equally as necessary to study the effect of light and shade, and composition of a view, as it is of a head or group under your skylight.

Select the view you desire to picture, and study it under all the effects of light, shade, and shadow, from "early dawn till dewy eve."

Photographs taken each hour through the day, without changing the position of the camera, will produce quite a variety of effects, some of them appearing as unlike others as though they were of different views.

By studying nature closely under all her phases, you will shortly learn, when looking upon a scene at any time of day (by simply consulting your pocket-compass), just the proper hour to visit the place with your camera in order to obtain the best possible effect.

As the introduction of the Rembrandt or shadow picture has been the means of awakening a deeper interest and causing a more thorough study into the effects of light and shadow in portraiture, it should also awaken the same feeling in landscape photography, and be productive of great benefit to the photographer and art student.

One who truly loves and studies nature, sees constantly beautiful pictures on every side whilst travelling over the country.

It does not always require a grand scene of rock, river, and mountain, to make up a picture. Very simple things, which a person not accustomed to observe would pass by unnoticed, will in the hands of one who has the knowledge and tact to properly picture them, be made very attractive and artistic too.

Small bits of landscape I would advise as preferable for the beginner as being more simple, and a variety of composition and effect can be produced with greater ease and simpler means.

The foreground being one of the main points in a picture, and generally required to be bold and effective, can, if not naturally so, be made so in a great measure by a little labor in the way of rolling up an old log or stump in an effective position, or placing a bush or clump of large-leaved weeds where they will be of service in making a proper balance or contrast as may be needed.

And let me advise you here to always have with you on your photographic trips, a spade and a good axe; the latter particularly will often be found "a friend in need," when it is desirable to cut a small tree or remove a branch that would otherwise obscure some important point of your view.

I remember on one occasion finding it necessary to cut down four large forest trees, in order to get a view of a peculiar formation of rock-work, which could not have been obtained otherwise, and oftentimes have been obliged to remove limbs from trees in order to get a proper view.

Study the works of eminent painters closely, and in selecting your views, keep in mind and endeavor to carry out as nearly as possible, the rules of art in regard to composition, balance of lines, breadth, and contrast, in your picture.

You cannot remove a large tree, a mountain, or other prominent object, from one part of the scene to another with the facility of the landscape painter, but by a slight change in the position of your camera, you can ofttimes produce quite a decided change in the composition of your picture for the better, and also avoid objects that would probably have been not only inartistic, but out of harmony with the balance of your picture.

Do not introduce figures into your picture unless they can be made to appear a part of the same, or to belong to the scene. Many a photograph that would have been faultless otherwise, is totally spoiled by the indiscriminate introduction of one or more figures which are entirely out of harmony with the scene and only mar it.

I would advise all photographic art students to obtain a copy of Mr. H. P. Robinson's *Pictorial Effect in Photography*, one of the best and most complete works ever published on the subject for the benefit of photographers. Read it over and over. Every page teaches a grand lesson.

But study nature always, and you will soon grow to perceive beauties in objects you have heretofore passed by as unsightly or unworthy of notice. Every tree, rock, shrub, will possess an interest unnoticed before. You will find

> "Tongues in trees, books in the running brooks,
> Sermons in stones, and good in everything."

In regard to apparatus and chemicals, I will only remark it is well to have several lenses of different foci, arranged so as to be easily substituted one for the other, as the occasion may require; also two or three samples of collodions working with greater or less contrast and detail.

The qualities and adaptabilities of different lenses, and the varieties of effects produced by the many chemical formulæ and manipulations, have been so fully ventilated through our journals, that the reading photographer is thoroughly posted, and has them all convenient for reference. Those who do not read the works of the present day devoted to our art, having *graduated*, of course need no instruction.

In the matter of outfit, I prefer a covered wagon, which can be readily converted into a dark-room, but also have a small tent, or portable developing box, to use in places inaccessible to the wagon.

Use care in the selection of your instruments and chemicals, strict cleanliness in your manip-

ulations, a little judgment and study in the selection of your view, and success will generally attend your efforts.

LEXINGTON, KENTUCKY,
June, 1873.

(Received with applause.)

MR. HUSHER: I will not take more than two or three minutes. I wish to speak in reference to the printing and cutting of prints. My manner is to cut the paper so that it would be ready for printing. Cut it in strips twice as long as your prints will be when mounted, so that when doubled in the middle it will be just the length of the mounted prints. Now, when you have done that double your paper in the middle, with the albumen side out, so the ends come together in that form (indicating), and then we can transfer it to the mounts without any difficulty. You take your negative off and turn it over; print that side, and then turn it over and print the other side, and there you have it altogether; and you can mount it as it is. (Applause)

It is obvious that if this is done in this way they are bound to come together in every case. When you double the paper the other way you have a space in the centre to be cut out, and when you double the paper together so (indicating), and print the picture, you have to trim off the ends and sides of the paper. If this idea of mine is carried out it will be a great saving of paper.

QUESTION: Do you mark your negatives?

ANSWER: I mark the negatives so as to keep the lines perfectly parallel.

The Permanent Secretary also presented from Mr. C. A. Zimmerman, St. Paul, Minnesota, the following paper

## ON LANDSCAPE PHOTOGRAPHY.

Having a lively interest in the doings of the National Photographic Association, I regret exceedingly my inability to attend the present Convention. Conscious also that it is every one's duty to give countenance and encouragement to this great and good object by their presence, I deplore it the more. While I am confident that I cannot advance anything materially new or novel to my seniors in the profession, I make free to lay before you a few ideas on landscape photography.

Impelled by a somewhat lengthy experience, I have always classed outdoor photography as follows: *landscape* and *bread-and-butter* photography. (I beg pardon for the homely term.) In *my* experience the two have seldom gone hand in hand.

Among a thousand or more view negatives, the result of five or six years' labor, or recreation, as I sometimes call it, having been made at intervals, when seeking a respite from the labors of the skylight, there are but few, if any, that possess any real merit as landscapes. 'Tis true, they have some of the elements—sky, water, foreground, near and middle distance; but, alas! that is all.

Popular taste controls or influences directly or indirectly every profession. The love of the sensational is inherent in the masses, whether it be the morbid curiosity attending a murder or suicide, a fire, a riot, curious or misshapen rocks, gnarled trees, the most sensational will always find the greatest number of worshippers.

I believe I am correct in saying that landscape photography in America has to too great an extent resolved itself into sensational, or local interest views. These find a ready sale, because the tourist, "our patron," demands such; and a beautiful landscape, unless of local interest, also very rarely finds a purchaser. Whether it be due to their quality or to their quantity, or whether, from a spirit of competition, photographers are to blame for it, I will not here discuss; but certain it is, there has never been a time when views commanded a poorer price; on account of the small remuneration there is but little incentive to any one to engage exclusively in the making of *good* views.

Good views will pay, but *only* at a *good price.* This the dealers refuse to give, saying, "The general public does not look to quality as much as to subject, and, furthermore, are no judges whether the pictures be good or bad."

A pertinent remark a widely-known landscape photographer made to me a short time since, when I remarked to him that he was perilling his reputation by the quantity of views he was turning out, as they could not be uniformly good. Said he: "I once thought as you do, but now I am forced to say, give me bread and butter, and let others starve on the reputation."

Neither is good work made by chance or fortune; the most patient application and perception of the requirements of the subject, together with a proper support in the different branches of the art, are necessary. Any one, with a genu-

ine love of the beautiful in nature, combining endurance with perseverance, will make a successful outdoor worker; and, if he has plenty of time and money, will soon make a reputation as a landscape photographer and artist.

While I would advise every one who has the inclination and opportunity for outdoor work, to prosecute it as a recreation in connection with portraiture, I could not so advise as a source of income; for, to attain to any excellence in either branch is possible, but scarcely in both.

There are but few in this country who devote themselves *exclusively* to outdoor work, but where this is done we see results equal to anything abroad. Witness the productions of Bennett, of Wisconsin; Watkins, of California; Kilburn, of the White Mountains; Barker, Curtis, and Bierstadt of Niagara, and others; *all* of their productions are not only gems, but many of the rarest merit.

In good weather and under favorable circumstances you may expose—be it under the skylight or under the "firmament blue"—half a gross of plates, of perfect manipulation and chemical effect, and yet have amongst them but one truly artistic result. This is not to be wondered at when we reflect on the important details such a picture is made up of, how many ways of treatment, and perchance but *one* point of view, *one* effect of light and shade, together with careful manipulation, that can justly represent or express the subject as it appears to the careful observer.

Let not these apparent difficulties deter any one from making the trial, but commence with a determination to succeed, and these fancied difficulties will vanish and the road to success be clear as day.

That landscape photography in America has not kept pace with portraiture is not surprising, as the improvement in the latter in the last three years has been surprising, and I think all will agree *very much more* is needed.

And here let me ask, do you realize to whom and to what *we*, on this side of the water, are indebted for the rapid and general advance and improvement in our beloved art? I answer, first of all to Edward L. Wilson, whose ably edited and *illustrated* journal of photography has month after month brought us examples of good work, stimulating us to renewed exertions for improvement which *comparison* made imperative.

Let us not forget this and selfishly take all the credit to ourselves, but rather let us, each and every one, give him and the National Photographic Association all the material aid in our power, thereby showing in a tangible way our appreciation of his efforts in our behalf, and indirectly furthering our own interests and advancement.

(Applause)

THE SECRETARY: I also have an interesting paper from Mr. Alfred L. Hance, of Philadelphia, who cannot be with us, but who evinces his interest in us by the following excellent remarks on

## COLLODION AND ITS TROUBLES.

There has been so much said and written on the subject of collodion that it has become a difficult matter to find anything new in relation to it. Its merits and demerits have been demonstrated by the experiments of many of the devotees of the art of photography. Scientists have thrown their whole faculties into the good and valuable work of its improvement and advancement in all its various branches, and the result of their studious and exhaustive labor has been spread before the photographer in many inestimable works. Hardwich, Vogel, and others have almost mastered the subject, and have reduced it to such a science that the careful operator can scarcely err if he follows out the instructions they have so plainly and understandingly demonstrated. So many good and valuable formulæ have been published by those who have entered into all the various difficulties and intricacies of its manufacture, that the photographer exercising proper care and discretion cannot often go amiss if he uses perfectly pure, fresh, and reliable chemicals. This has ever been the greatest trouble with those who are unaccustomed to manipulate the various compounds necessary to effect the desired results, more particularly with those located at a distance from a convenient source of supply.

There are many well-established manufacturers from whom a reliable article can always be procured, and the photographer can commit no greater error than to attempt to economize by purchasing cheap and untried chemicals, and thus risking his time, labor, and reputation.

Another and a too common error among the fraternity is the negligent and indifferent manner in which they keep and handle their chemicals. Unless the greatest precaution is exercised in this respect, success cannot be assured. The different preparations should be carefully corked in their respective packages, to exclude the air and prevent the absorption of any antagonistic or deleterious vapors or substances in their vicinity, and they should be kept in a dry, dark, and cool

place, each vessel being properly and distinctly labelled.

Collodion, "particularly in warm weather," evaporates very rapidly unless kept in tightly-corked bottles; the ether, evaporating more rapidly than alcohol, it is necessary in thinning the collodion to add more ether than alcohol to counteract the excess, using the utmost care not to add too much ether for fear of reversing the fault. Careful experiments and constant practice can be the only sure guide to success in photography, but such experiments should not be undertaken when you have important work in hand; they should always be made in leisure hours and when you have an opportunity to try them on unimportant subjects, when the faculties are clear, and not hampered with the exactions of impatient customers. After being satisfied that the ether, alcohol, iodides, and bromides are all that can be desired, another formidable and precarious ingredient presents itself and plays such an important part in the manufacture of collodion that its claims cannot be overlooked without the probability of all former labors being set at naught. Gun-cotton has always been the great bugbear of collodion, and I would advise no one to enter into its manufacture in a small experimental way, expecting great results, and to realize something new and more perfect than the few reliable products now to be found in the market. It can only be brought to moderate perfection by the most assiduous care and labor. It is necessary to treat it with such exactness and nicety of detail that but few can withstand the pressure upon the time and nerve necessary to secure success. There are so many ways of making gun-cotton, and its manufacture requires such careful and particular manipulation, that it would be impossible to describe it understandingly in a paper to be read to your society.

In the manufacture of pyroxyline it is necessary to procure the finest cotton-wool, such as is put up in the old-time pink and blue tissue-paper wrappers, a cotton free from all admixture of extraneous substances. This cotton, preparatory to its manufacture into pyroxyline, must pass through a process to clean it of all its impurities and extract the gum and resin from the seed which, if allowed to remain, will cause serious trouble. To prepare cotton-wool for pyroxyline dissolve in 72 ounces of *boiling water* 1 ounce of carbonate of potash; in this immerse 2 ounces of cotton-wool. Keep it well stirred with a glass rod (over heat) for two hours, remove the cotton, and wash in ten changes of clean water, wringing well after each washing, and dry on clean lines in the open air.

When perfectly dry and free from alkaline, this cotton is not only adapted to the manufacture of pyroxyline but makes a most excellent filtering cotton for collodion. I would advise all photographers to filter their collodion before coating the plate, its glutinous properties rendering it liable to collect dust that is not discernible to the eye, but causes ruination to the picture. It is always best to keep a stock of *old* collodion on hand. New collodion will seldom give the strength and detail requisite for a first-class picture, and an addition from the stock-bottle of an older sample, in proper proportions, will generally make up for all defects.

Not wishing to further encroach upon your valuable time at present, I shall endeavor to go into more detail in future communications.

Trusting that you may be well repaid for your generous co-operative labors,

I remain, respectfully yours,

ALFRED L. HANCE.

PHILADELPHIA, July 15th, 1873.

THE PRESIDENT: I wish to call the attention of the members to the preparation for making wooden-ware tight, or at least so it will hold acids. This is a very valuable preparation of Mr. Newell, of Philadelphia, and seems to furnish what is desired by photographers.

MR. HESLER: It is a capital thing. I would say that I have used for the last twenty years past a preparation for keeping wooden dishes tight; it is made of beeswax, rosin, and tallow, or beeswax and paraffine, by heating it and forcing it into the wood; it makes the wood acid tight, so that you can put anything into it, only you must not heat it. If you want a preparation to render wooden dishes tight for hot liquids, you take asphaltum and coat the inside of the vessel with it, and it will make a dish that you can put anything in; it will stand the heat and light.

QUESTION: Will it stand the acid?

ANSWER: Yes, sir.

QUESTION: You know the acid goes through everything we can get.

MR. HESLER: It will hold almost anything.

QUESTION: Will it stand concentrated lye?

MR. HESLER: It will hold concentrated lye, I believe.

THE CHAIR: The next subject we will

discuss will be "Retouching the Negative," to be opened by Mr. J. W. Morgeneier, if he is here.

The gentleman not being present, a paper by him on the subject was handed over to the Secretary for publication, as follows:

## RETOUCHING NEGATIVES.

BY J. W. MORGENEIER.

FRIENDS OF PHOTOGRAPHY: I desire in the commencement to say that in giving some items of practice I do so from the fact that I have been a close follower of the various improvements. Perhaps an experience of this character given to the public may benefit still the followers of our beautiful art; I shall be satisfied, however, if only a part of my brethren be benefited—"for where abundance of light exists no more is required"—I will be more than repaid for the little trouble in penning this communication.

Retouching negatives! this popular branch of our art must not be overlooked; popular because it is now practiced in all regular first-class galleries. Yet it has been attended with much trouble, and it is but recently that it has been reduced to a system and placed in its proper class as one of the necessities of art manipulation. Every one should avail himself of its improving effect. Much has been written *for* and *against* it; but to present it is proved that the retouching is an unavoidable necessity, to gratify the demand of the public. I shall endeavor to explain my views on this point to the many questions addressed to me.

*First.* On what principle is the necessity of retouching based? Notwithstanding skilful lighting, posing, and chemical manipulations, without exception the result obtained is always such that we are forced to reduce the too hard, troublesome contrasts formed by the impurity of the skin, such as freckles, scars, and other unpleasant features, which by an ordinary glance at the subject are scarcely perceptible or wholly unnoticed. Blemishes also may occur in other parts of the negative which call retouching into requisition.

*Second.* Why has it been tried to condemn retouching, to even consider it superfluous and unjust? The latter is done more on the part of the photographers than the public, because the limits and rules of retouching are wrongly understood by a large majority. Applied excessively the negative is changed in such a manner that all natural effect of lighting and development is destroyed, although the public is flattered in this manner and little or no objections are made.

*We, however*, know that it is wrong to cause a photographic portrait to resemble an unnatural fineness or else the coarseness of a poorly executed engraving. I have seen photographs in which the nostrils were pierced to give the appearance of sharpness. Therefore the principle to produce negatives that need little retouching only is best, to satisfy the craving of art and the public. The negative, when coming to the hands of the retoucher, should be without exception, so that only such unavoidable blemishes as freckles, moles, or other impurities, and very contracted features which the face possess, need be removed; and *these* should be retouched to such an extent *only* to retain every possible relief, and to secure the much-desired gradations from the deepest shadows to the high-lights. By following these principles the retoucher is enabled to add that which could not be obtained in the preceding operations: a portrait true to the original and free from the easily detected, exaggerated retouch, because those parts of the negative which need no retouching force the retoucher to follow the original tone of the lighting.

I beg the liberty to observe the following, on a negative requiring retouching, for an instant: A negative taken from a very aged person, whose features are disfigured in all directions by innumerable wrinkles, &c., &c. In such the entire forehead crossed by deep furrows and small cross-wrinkles; deep-laid eyes, with spreading, crow-foot wrinkles; flabby, hanging tear-bags; prominent cheek-bones; hollow cheeks; a high, crooked nose, the sides of which appear very dark, and sunken upper-lip, caused by the loss of teeth, producing a hard, dark, unharmonious shade; further, between the under-lip and chin, a part which appears especially uneven and scarred, often from the mouth downwards, circling wrinkles appear, and the neck on account of great leanness is a mass of cords and wrinkles.

Such a subject I illuminate in a manner to give as little relief as possible without producing flatness, and then by slight retouching harmonize the gradations of light and shade without destroying the expression and the natural undulation of the skin. Let us try to make our negatives by lighting, &c., &c., as near as possible true to the original, and let us consider retouching only as a medium to produce prints to appear more *clean*. I use this word from the public of the past; when prints were made from untouched negatives, the general expression was, "The likeness is good, but it appears as if my face

was not *clean*." Ever since proper negative retouching, this phrase has disappeared. In retouching let us confine ourselves, *as much as possible*, to finish with the aid of the pencil that which *cannot* be obtained by the use of light, instruments, and chemicals, and we shall satisfy the *public* and ourselves in producing natural, artistic photographs.

Also the following, by Mr. Robert M. Morgeneier, son of the other gentleman.

### IDEAS ON NEGATIVE RETOUCHING.

Retouching means to improve by touches! What is negative retouching? It is the act of improving and *beautifying* photographic portraits, on account of some defect in the model itself, and which, in the photograph, appears with more prominence than can be seen by viewing with the eye. It is the practice of judiciously removing the chemical imperfections,—imperfections impossible to avoid even by the most skilful manipulator; of blending light and shade in sharp angular features where it is impossible to obtain the proper softness and harmony; in lighting without sacrificing the relief and solidity of the picture; the whole done with nicety and care, not as if it were a mechanical operation. No! as the artist with his brush, so shall the retoucher give every touch with feeling and a certainty of correctness. Negative retouching should be an advancement of the art; and all who have a desire to further and improve our magic profession, and raise it to the highest point of perfection, should make themselves acquainted with this useful branch of the art. To remove all the faults that occur in the operation of photography, as well as to satisfy the varying demands of the public; to appease the most fastidious, a thorough knowledge of correct retouching is of the utmost necessity. Retouching *cannot* produce a perfect picture from a really bad negative; and yet, nevertheless, there are photographers who, before retouching was generally used, worked with the greatest ambition to produce the very best work, have now become careless, "as all that can be helped *by retouching*." To such, instead of improvement, it is a drawback, and they must reform or eventually be superseded by the more zealous and careful ones of the craft. A competent retoucher should be acquainted with the general anatomical features of the face, a slight knowledge of drawing at least, and a thorough understanding of the effect of light and shade, that when working, none of those soft shades and little wrinkles which characterize the face are erased, thereby destroying the likeness, and causing the picture to appear *flat*. In working up a negative never *overdo* it. This is the greatest mistake, and one generally practiced; the face in such work appearing like the smooth stretched head of a drum, or in disagreeable splotches, termed *chalky*. Another method is to produce what is called eggshell surface, the whole appearing as speckled as the surface of a guinea-egg reduced; this is the most objectionable, as it entirely misrepresents the surface of the skin, and yet some *artists* take special pains to produce such pictures, which, to any one of artistic taste, must seem ridiculous. The right manner is to remove glaring imperfections, or hard shadows, and to regulate disagreeable features in such a manner that the marks of the pencil do not show in strokes or dots on the finished print.

ROBERT MORGENEIER,
Retoucher.

A paper on the same subject by Mr. N. H. Busey, of Baltimore, Md., was also ordered to be printed, that gentleman being absent. The discussion was omitted.

Mr. Busey's paper is as follows:

### RETOUCHING.

BY N. H. BUSEY.

Retouching the negative is a subject which has of late years occupied the attention of photographers to a very great extent, and like all advance steps in art and science, has met with strong opposition from many quarters, and has given rise to numerous controversies, in which each side brings forward apparently unanswerable arguments; its opponents arguing that it destroys the truth of a photograph, while its advocates contend that it only corrects those parts of the picture which are incorrectly rendered by the camera. It is still growing in favor all over the world, and has taken such a hold upon the public, that the photographer who does not now retouch his negatives is invariably deserted by his customers, who show their appreciation of retouching by bestowing their patronage upon those who do practice it. Retouching, like any other good thing, is liable to abuse, and it is due to this abuse that the opposition to it has arisen. Unfortunately, in a great majority of cases, the retouching of a negative is intrusted to unskilled hands; persons who have no idea of the drawing and modelling of a face, the artistic effect of the touch, or even the printing requirements of a negative. This is all wrong. Retouching should

only be done by an artist—I mean a person with artistic taste and ability (for all of the so-called artists do not possess these qualities); and yet we see in every journal applications for situations like the following: "Wanted, a situation in a photograph gallery as printer; can retouch negatives;" or, "Wanted, a situation in a photograph gallery as saleslady; can retouch negatives." I almost expect to see one after this manner: "Wanted, a situation in a photograph gallery as *bootblack;* can retouch negatives." Now the retouching of a negative does not consist in the mere smoothing of the face, until it looks as if it was sandpapered, but comprehends a great deal more, and is, in the hands of a competent artist, a power by which the negative may be very materially changed, a shadow lightened, an obtrusive wrinkle modified, one part darkened by heightening the light in another, the expression altered, the shape of a feature changed; all done harmoniously, and a more natural likeness secured than before. It is true, that frequently the negative is intentionally made to flatter by the retouching, but this is perfectly consistent, as even those parties who do not retouch, use every means in their power, by lighting, posing, &c., to flatter.

It is an undeniable fact that true likeness cannot always be claimed for photography, as the likeness is affected very considerably by the mode of lighting, the position, &c. But I think in the great majority of cases the photograph comes nearer a true representation of the subject than any other kind of picture. One great trouble in photography is the want of color, everything being depicted in black and white. This naturally causes all shadows, lines, and spots in the face to be exaggerated, as what is a warm tint in nature is rudely shown in black on the photograph. It is just here that retouching is of advantage; by judiciously softening these shadows and lines, we produce a much more natural effect. One very important effect retouching has had upon the art that I do not remember ever having seen commented upon is, that it gives greater liberty in lighting. This is very plainly shown by the Rembrandt picture, a favorite style of picture, but one which, if it were not for retouching, could not, of most subjects, be satisfactorily made; for if the complexion is in the slightest degree rough, it will be very harshly exhibited in the heavily-shaded portions of the face.

The introduction of the Rembrandt picture has been a great stride forward, and has been the cause of a greater study of art by photographers than any other event that has ever happened in photography. It has also had a very beneficial effect upon the public in overcoming their prejudice against shade on a photograph.

But to come to the practical part of our subject. In the first place, it is necessary to have pencils that are perfectly free from grit, as a pencil that has grit in it will be continually scratching little places in the negative.

In my practice I have found the patent pencil with movable leads, made by Faber, the best for retouching, as the lead is of very fine quality and perfectly free from grit; they are also much more convenient than the ordinary lead-pencil, as they do not require to be sharpened. I have tried metallic and most every other kind of pencil, but find these the best. A pretty hard lead is best for fine work on small heads, but for a large head, where the strokes are to be bold, a softer lead is required. As a general thing it is not necessary to roughen the surface of a negative, as the varnish will have sufficient tooth to take the pencil, but when the surface is too smooth, or it is necessary to put a great deal of heavy retouching upon a negative, pulverized pumice will be found to be very useful; just dip the finger into the pumice, knock the loose powder back into the box, and gently rub the finger over the part of the negative required to be roughened; this will be all that is necessary in most cases. Such things as grit-varnish, &c., are not only of no service, but decidedly detrimental, making too rough a surface entirely. The retouching-frames sold by the stockdealers are very useful, and are all that is required; but I prefer to substitute for the mirror a piece of white cardboard, and to remove the ground-glass from the frame, which gives a soft agreeable light, that does not in the least dazzle the yes. If you have a ground-glass window to work by, the mirror will do. It is much better to work in a darkened room where there is no other light than that which comes through the negative from the reflector. This is about as far as any definite instructions can be given, the rest depends upon skill and artistic taste; but I will try and make a few suggestions that may prove of use to some. When you place your negative on the retouching-frame, examine it carefully to see what necessary improvements are to be made in it.

If there is a crooked nose, try and straighten it by making the high-light appear as it would if the nose were straight; cut the corners of the mouth; lighten the shadow under the eyes; fill up the sunken cheeks; modify any unfortunate wrinkles; sharpen the eyes by intensifying the white and drawing the line of the upper and

lower lids. Now proceed to smooth the complexion, but be careful not to smooth all the roundness out of the picture; see that you do not reduce the high-lights too much by bringing up the shadows and half-tones. But if there appears to be a flattening of the face, judiciously intensify the high-lights, avoid, of course, too great a distribution of the high lights, which will give the picture a glistening or choppy effect. One of the greatest things in retouching, and one that requires considerable practice to attain, is an artistic touch. By this I mean so manipulating the pencil as to produce that transparent and peachy texture, which may be observed in a fine water-color or india-ink picture. This effect is produced by a series of hatches done in a perfectly true and free manner, each stroke of the pencil being put exactly where it belongs, and not overlapping its neighbor, and producing that spotty and unquiet effect so objectionable to the educated eye. Do not take the pencil, and start in with the purpose of laboriously stippling the whole negative, regardless of what comes in the way, whether it be light or shadow, so that the picture comes out as if it had been sandpapered. Such a manner of working produces nothing but a tame and insipid effect, and has been the cause of most of the objections to retouching. Hoping that the future will demonstrate more fully the beauties of good retouching than this article has done, I will bring it to a close.

The programme was now read for Saturday morning.

MR. WILSON: I move that the report of the Committee on the Award of the Scovill and Holmes Medal be reconsidered.

The reason I make this motion is this, the committee have rather overstepped their usual custom, by mentioning the articles which were in competition and not as usual making the award of the silver or Holmes medal; also, I think if the committee had known that, that they would not have done so. It rather has a tendency of creating a feeling in the matter, and therefore I make a motion that the action on the report of the committee be reconsidered and their report referred back to them.

Agreed to, and the report was referred.

MR. HESLER: I would like to speak of an asphaltum varnish for tablets. You varnish the tablets occasionally and the silver solution will run off over it, as it would over grease, and a set of tablets with care will last for a lifetime if protected in that way, by the asphaltum varnish.

QUESTION: How do you make it?

MR. HESLER: You can buy it for seventy-five cents a gallon at any paint store.

MR. SOUTHWORTH: I was appointed, with several others, on the committee to arrange some duties for the Vice-Presidents. There has not been one minute of time for a meeting of that committee since its appointment. I have been on other committees, and we have been hard at work all the time, all of us, and it is now Friday night.

THE PRESIDENT: I appointed the committees as soon as I could, so that they might have time to work.

MR. SOUTHWORTH: Mr. President, I think, for one, that that committee should be abolished.

THE PRESIDENT: If your committee have not had a session you will have to hold one.

MR. SOUTHWORTH: In deference to my colleagues I cannot say anything, but I would propose we have a meeting immediately after this meeting. As some of them may be absent, I wish you would name one or two more to act with us.

THE PRESIDENT: I think Mr. Pearsall was one, and Mr. Frank Jewell was another.

MR. SOUTHWORTH: I do not know their names.

THE PRESIDENT: I will appoint as another and additional member of that committee, Mr. I. B. Webster.

MR. SOUTHWORTH: I presume that those gentlemen will recollect.

THE PRESIDENT: Mr. Whitney was on that committee.

MR. SOUTHWORTH: We will have a meeting here, after this meeting has adjourned.

THE PRESIDENT: It appears that section first, article five, of our constitution reads in a certain way, providing for five members on the Executive Committee. It is moved so that that committee be composed of seven. You will have to read this for me, Mr. Wilson; I cannot make it out. It is the intention merely to introduce it.

The Permanent Secretary read a resolution from Mr. Copeland, as follows:

I desire to give notice of the following:

*Resolved*, That section first, article five,

of our constitution shall be so changed as to read, "The Executive Committee shall be composed of seven members," instead of five, as it now reads.

THE PRESIDENT: It is merely a notice of a motion to alter the constitution. When it comes up, at the proper time, we shall have something to say about it.

If there is no other business, we will adjourn.

MR. WEBSTER: Seeing no one on the stand except the President and the reporter, I thought I would come up and fill the gap.

There is one little material which is very useful in photography that I want to give to you, and I will say to you that I have used it for nearly twenty years. That little material simply consists in taking ordinary beeswax and ordinary rosin, and melt them, and combine them with heat in equal parts.

Now if you have a dish that leaks, a tin dish that water will rust out a little hole here and there, or your roof leaks, and your painter is not there, and you cannot get it painted just at that time, or you have a leak in the skylight and you want to stop it, or you have a wooden dish you would like to coat so as to hold water and acid; if it was leaking, all you have to do is to use it warm. One batch of that, one-half pound, will last you about twenty years, and you will find it the most useful paint you ever had about your establishment.

THE PRESIDENT: Before we separate I cannot help saying a word. I feel better. I think we have had three hours here of practical photography. It has done me good, and now, gentlemen, a motion to adjourn until to-morrow will be in order. You will all remember Mr. Black's exhibition here to-night, and the one at the Rink.

MR. HESLER: In regard to coating tin dishes, I would say that the asphaltum varnish must be put on while hot. It will dry and flow over the edges, and in that way you have a dish that will answer for almost all purposes, even for silvering paper.

On motion, the Convention adjourned.

*EVENING SESSION.*

FRIDAY, July 18th.

This evening Mr. Black gave the members of the Association (free) and a large assemblage of the citizens (who paid) a grand stereopticon exhibition at St. James Hall. A crowded hall greeted Mr. Black when he made his appearance, which put him in his best humor, and his views and his oral descriptions delighted his audience for nearly two hours. He showed his Labrador series, many comical views, a fine series of transparencies by the Woodbury process, which process he described, views in Europe, &c., &c., and seemed reluctant to stop, as he always seems to be when doing any good service for others. A more pleased audience never left St. James Hall, we are sure.

*FIFTH DAY—MORNING SESSION.*

SATURDAY, July 19th, 1873.

The meeting was called to order by the President.

MR. SOUTHWORTH: I read in the paper this morning that in the course of his remarks, "Mr. Southworth yesterday took occasion to deny the action of the actinic rays, saying, after a long experiment, that colors could not be put into pictures by the use of colored plates."

I call attention to this to correct the obvious error, that it is only the actinic rays that produce the effect. I would further state that the colored rays were not entirely separated, but have actinic rays in them. I think so far that there is an actinic ray in the colored ray, and that explains the operation of it.

THE PRESIDENT: The first thing in order will be to hear from our friend Mr. Bingham, on collodion.

MR. BINGHAM: I wish to make an apology for the first thing, and to say that I am no speaker, and never made a public speech in my life. I hope you will excuse all blunders, and everything that you notice is not as fluently said as it would be by an eloquent speaker. I am a practical man, and nothing else; and what I have to say this morning will be very brief and practical.

I was called upon by our Permanent Secretary for an article on collodion. At first I utterly refused to write any article. I never wrote one, and I told him I would make a few extempore remarks. I shall not take five minutes in what I am about to

say, and what I tell you I practice in my business every day.

Collodion is a thing it seems to me every one ought to understand thoroughly. It does not seem to me as though there could be anything new said on the subject, still we all have our peculiar way of making and working collodion, and each one's way is the best.

I make my collodion as a great many do, with one exception. I make this collodion with equal parts of alcohol and ether. I make a double iodide of potash and cadmium, take of this two grains and a half; of iodide of ammonium, two grains and a half; of bromide of cadmium, two grains; that is the way I make my collodion.

That is my standard collodion. I take this collodion, and by the way, I see this collodion is not as perfectly white as it should be: the ether was not good. This collodion is made of the double iodide, of an iodide and a bromide. It is composed of the iodide of potash and the bromide of cadmium. I take of the bromide of cadmium, two grains, five grains of the double iodide, and I keep this in a bottle to regulate my other collodion, to make it work good.

I sometimes want to have a different collodion; for this purpose, I have a number of flowing-bottles, so that I can have three or four working collodions; so as to be able to adapt them to the subjects that I have in working. I have made a few practical experiments.

I tried nine different kinds of collodion. You may say that is not a fair test. In many cases it would be fair, perhaps. We will now show you the results of our experiments with the collodion.

We propose to pass these negatives around, so that you can see them, and see the different effects produced.

No. 1 was made with a collodion iodized with a double iodide of cadmium and potash. Please take it and look at it, and see the effect produced.

This was made with the other collodion worked with a combination of the two. I wish to say further, I have no hobby. This is not any hobby of mine, because it is a thing I never think of when I am at home. I have no hobby. I give you these ideas, because they are practical.

Here is another one, made with the same thing; different age, that is all.

In No. 2, the collodion was not prepared the same way. I would say, gentlemen, that these negatives were made by men who were entire strangers to the apparatus or the dark-room, and everything else; that they were made by the committee.

Here is No. 4, marked "conundrum." Mr. Baker will explain that to you; I do not know anything about it.

THE PRESIDENT: I suppose it is a new chemical conundrum. He will have to explain that.

MR. BINGHAM: That is something that I know nothing about. These are different collodions that are used in the market. Mr. Baker will have to explain his mixture. I do not know how he made it. I think it is a terrible mixture. I suppose you do not want to examine it.

This gentleman will tell you more about it than I can. Here is a negative that must not be criticized. You see that the collodion was not good, for the very reason that it is a chlorized collodion, consequently it wants a peculiar bath to work with; it might work as well as the other.

I would say, gentlemen, that there is more in the manipulation than in the collodion. Any good collodion can be made to make fine negatives. It is the manipulation and the understanding of the collodion which make the negative.

It is not any peculiar form of collodion. We have a great many good collodions. Any man thoroughly understanding his collodion produces the best work.

Here is a negative made by Mr. Baker's collodion, under the same circumstances, and I will say further that these negatives were made in the same light, and under the same circumstances.

Here is one that was made by the commercial collodion of David Tucker & Co. I do not know that I have anything more to say on collodion.

I would say, in addition, that the object of these experiments was simply to bring before you the effects of different collodions.

We give no personal opinion in the mat-

ter. I might give you my personal opinion, but I will not do so. The committee will make their report on the negatives. We all know the chemistry of the different salts. I do not think it is necessary to explain them, for we all have had a good bit of experience in that way.

I would say further, gentlemen, the novelty in the double iodide is this: that you combine the iodide of potassium with the iodide of cadmium, and you know that the iodide of potassium is not soluble in alcohol, but only sparingly so. You combine it with cadmium, and it is more soluble than any of the salts we have.

It will dissolve quicker in alcohol than the iodide of ammonium. It is very deliquescent. You have to keep it in a tight bottle, or it will rapidly deliquesce.

Mr. Webster: Perhaps you remember a notice that was given yesterday evening, and you remember that the committee reported upon the business that we had with Mr. Shaw.

I move now, Mr. President, that the suggestions of the committee, or rather, I move here, that that report be received here and the suggestions of the committee be carried out.

Mr. Bingham: I second the motion.

The President: It is a motion in regard to the report of the committee on the Shaw Patent.

Mr. Bingham: In behalf of the committee, I move that we extend a vote of thanks to Mr. Baker, for the use of his rooms and light, and everything in the preparation of the negatives.

This was agreed to.

Mr. Webster: The reading of those papers have been called for, and I will say that they cannot be found just now, and so I will give you the gist of them. That is the best way, as I do not like to appear before you and take up your time.

I have been at work on this point for three days, and I am qualified to say something on it. I do not pretend to say anything more, however, than to explain as near as I can the purport of that paper, that I want adopted this morning, or the suggestions.

The suggestions simply amount to this: that Mr. Shaw's patent, together with his specifications and the opinions of Mr. Bell, be published in the *Philadelphia Photographer*, the organ of the National Photographic Association, with our proceedings. We think everything connected with photography should receive mention, that we may be fully posted with regard to the claims of Mr. Shaw. That is the object of the motion and nothing else.

Mr. Webster: I take this position, and it is a broad one, that this organization, the National Photographic Association, is a school of instruction. There is not a point connected with photography that we ought not to study. It is our bounden duty to study every point connected with the art. I look upon it as a school of instruction, and the best one that we have got.

We go for information in every direction. We do not confine ourselves to collodions; we do not confine ourselves to silver baths or silvering-paper, toning or mounting, or anything of that kind; but we cover the whole ground of photography from the word go.

We cover the whole ground; and what does that mean?

It simply means every question pertaining to our art; and the question of the patent is one of them. Every man in the business must study this question of patents, and I therefore call for a publication in full of Mr. Shaw's claim, with his specifications, and with the opinions already paid for. And I want it spread broadcast throughout the land, that they may be able to talk intelligently to Mr. Shaw when he calls to see them. The reason that I make this motion this morning is, that I want this published and that I mean nothing else. That is all, Mr. President. I renew the words in which I put the motion.

The President: The first is, that the suggestions of the committee be carried out and sustained by this body. The suggestions of that committee are, the publication of this matter.

The vote was now taken, and the motion agreed to.

The President: I will read a communication from Mr. A. T. Urie, one of our members in St. Louis.

St. Louis, July 15th, 1873.

President Bogardus.

Sir: I regret that I cannot be present at our approaching annual convention; for in addition to the pleasure and profit which I, in common with my brother members, have enjoyed in our social intercourse, and in an interchange of views and opinions, I had intended making some suggestions relative to the introduction of a beneficiary feature in our organization. I would suggest that a committee be appointed to inquire into the expediency, and if practicable, to report a *rule* entitling the family of each member *at his death* to a sum equal in amount to one dollar for every member of the Association. A fund may be created for this purpose by at once levying an assessment of one dollar upon each member; at the death of a member the Secretary will pay to the family of the deceased, from what may be termed the "beneficiary fund," the sum to which they are entitled; and each surviving member will be again assessed one dollar, to be paid to the Secretary within a given time, and so on.

There is, also, another subject which I think is deserving of some consideration. The published journal of proceedings of our Convention sometimes contains valuable scientific information, profitable to the profession, which I think should not be furnished gratuitously to persons of our profession who are not members of the Association. I would, therefore, suggest that the circulation of such documents should be confined, as nearly as may be, to the membership.

Some such action as I have already referred to, I think, will strengthen the bonds that unite us, and advance the interests of our Association.

Very respectfully yours,

A. T. Urie.

The President: These matters have both been already disposed of.

Mr. Webster: Unfortunately for me, I was placed upon a very important committee, and we had but very little time to work upon it. I do not want to consume your time, and I am not going to do it.

But, as for myself, this committee is ready to report this morning; and if you will listen to me, I will give it to you.

However, I want to premise this report with these remarks.

Two years ago a committee, and a very strong one, was appointed for the purpose of investigating the question of fire insurance. The chairman of that committee is present, I believe, and I think it is the duty of this body to call him to account for failing to give us some report.

I think, and I believe, that it is our duty. I know I was on one committee for three years, and we did not get it through until day before yesterday. I was three years upon that committee.

We got through but a few days ago. This committee of which I am speaking has been in existence only two years.

I am willing enough to give them the next year, but I am not willing to give them beyond three years. I would not be willing to extend it beyond that time. I think that is about long enough.

These are our articles of agreement for our Mutual Life Insurance League, for the members of the National Photographic Association.

I would like to make a report on that committee. That is all. I will read for you the

## ARTICLES OF AGREEMENT

FOR "THE MUTUAL LIFE INSURANCE LEAGUE" OF THE MEMBERS OF THE NATIONAL PHOTOGRAPHIC ASSOCIATION.

1. All members of the National Photographic Association, in good standing, shall be considered also members of the Mutual Life Insurance League, and entitled to all the benefits arising therefrom.

2. On the decease of any member or his wife, or her husband, the family shall send notice and proofs of the death to the Secretary of the National Photographic Association, and it shall be his duty to notify every remaining member, as soon as possible, by publication in the *Photographer*, and printed notices, and shall be entitled to subtract enough from the funds collected to pay all necessary expenses incurred by him.

3. It shall be the duty of every member, on receiving said notice, to remit the sum of one dollar to the Secretary, to be held in trust by him until applied for by the family of the deceased.

4. The family shall be at liberty to draw the amount thus obtained after the expiration of sixty days from the time the notice is sent to the Secretary.

5. All members failing to remit the amount expected, within thirty days from receipt of notice, shall be fined one dollar extra for every month's delay; and should they not respond

within ninety days, their names shall be published and stricken from the membership of the League.

6. Any member who shall be in arrears one year for annual dues to the National Photographic Association, at the time of his or her death, shall not be entitled to receive the benefits of this League

7. Any member who is not addicted to intemperance, who may become permanently disabled to do *any kind of work*, through accident, infirmity, or sickness, shall cause their case to be reported at the annual meeting of the Association for consideration, and if deemed best, and deserving, by that body, the same appropriation shall be made for the family as in case of death.

(Of course, the Secretary referred to here is the one mentioned in the other report )

He is the Permanent Secretary of the National Photographic Association.

This is the report of the committee.

Now, Mr. President, there are two points that I wish to call your attention to.

One of them is embraced in this second article. I will read a portion of it, and you will see what the point is.

On the decease of any member or his wife—

It may seem at first sight that this would be unjust. The object of putting it in this way was this: that it seems on the face of it to be unjust, that all photographers are not married men.

(Laughter and applause.)

The object here is to induce every photographer to get himself a wife. Well, there is another point I wanted to speak on, the sixth article.

Any member who shall be in arrears for one year for his annual dues to the National Photographic Association, at the time of his or her death, shall not be entitled to reap the benefit for the family.

The point that we propose to make in the clause is this: The National Photographic Association needs the dues of every member belonging to it. If we had the dues of the members who had pledged their word to us that they would give us two dollars a year, it is more now, and if we had the money that they have pledged their word to give, we would not be in debt to-day one cent. Therefore anything that we can bring to bear upon this Association and upon those members that will cause them to remit promptly their dues every year, will help this Association to swim upon the surface of the water.

There are two points, gentlemen, to call your attention to, in regard to all associations, and one is, to avoid accumulating a fund.

Avoid the accumulation of a fund, by all means, because, the moment you accumulate a fund, that moment there is a strife for the treasurership.

The next point is to avoid getting into debt.

Now let us get out of debt if we can.

Mr. President, I move that this paper be published in the *Philadelphia Photographer* with the proceedings of this Association.

A Member: I would like to know if that makes any provisions in regard to honorary members?

Mr. Webster: Honorary members? yes, sir. It does not say active members; I do not know whether that includes honorary members or not.

A Member: I was going to move the election of Brigham Young as an honorary member of the Association.

Mr. Baker: I move that this report be accepted.

Agreed to.

The President: Is it your pleasure to adopt this? The acceptance will cause it to be printed.

Mr. Hesler: I move that it be published, but not adopted at present.

The President: It cannot be adopted unless it be so determined by this body.

Mr. Webster: I did not ask its adoption; I only want its publication.

The President: The next business is the report of the Committee on the Scovill and Holmes Medal, which was referred back to them yesterday.

Mr. Wilson: Mr. Carbutt left his report to be read.

The Committee on the Scovill and Holmes Medal beg leave to modify their report by striking out the names of the unsuccessful competitors, and it now reads.*

* See page 303.

MR. WILSON: I move the adoption of this report.

A MEMBER: I second the motion.

MR. WEBSTER: I did not hear the report.

Mr. Wilson reread the report.

MR. WEBSTER: We have a great deal of confidence in that committee, and whatever they suggest I will vote for.

The motion was then agreed to.

MR. BAKER: Gentlemen and ladies, I have just received an invitation for you to visit the Historical Society's Rooms, the Grosvenor Library Rooms, the Society of Natural Sciences, and the Buffalo Fine Arts Gallery. These four institutions have to-day placed their rooms open, and to your disposal. I trust as many of you as can will take the pains to visit the Society of Fine Arts and the gallery which very nearly surrounds us.

MR. HESLER: I move that a vote of thanks be tendered by this Association to the four different societies for their invitations and their hospitality.

Agreed to unanimously.

Mr. Baker then gave directions as to visiting the several places.

THE PRESIDENT: It devolves upon me now to appoint some committees before we leave.

I would appoint as Committee on our Relief Fund,

W. Irving Adams, New Jersey;
V. M. Wilcox, New York;
J. W. Black, Boston, Mass.

As Committee on the Scovill and Holmes Medals,

A. M. Collins,
J. Carbutt,
Albert Moore,
John R. Clemons,
A. K. P. Trask.

MR. RHOADS: Mr. President, a few days ago you remarked that it would be necessary for us to make some arrangement in regard to the Centennial Exposition in Philadelphia at the coming anniversary of the independence of the United States. I have a resolution to read on that subject, viz.:

WHEREAS, The United States Centennial Exposition will be held in Philadelphia, July 4th, 1876; and,

WHEREAS, The President of the United States has issued a proclamation inviting the world to exhibit their products, &c., at this time, thus making it a *World's Fair;* and

WHEREAS, Photography should be represented on that occasion through the N. P. A. of the United States; therefore,

*Resolved*, That Abraham Bogardus, President of this Association, and Edward L. Wilson, the Permanent Secretary, be and they are hereby appointed a committee with full power to represent this Association before the United States Centennial Commission.

*Resolved*, That the said Abraham Bogardus and Edward L. Wilson, be, and they are hereby, empowered to add three gentlemen (members of the Association) to this committee, if they deem it necessary; provided, however, the three names be approved of by the Executive Committee of the N. P. A.

Offered by
W. IRVING ADAMS.

MR. WEBSTER: I move the adoption of the resolution.

A MEMBER: I second the motion.

THE PRESIDENT: The motion is before you, and I feel it is an important committee, and I do not know how I am going to get time to make preparation for it.

MR. RHOADS: You have got three years before you.

THE PRESIDENT: It will take a good deal of time.

The motion was then agreed to.

MR. SOUTHWORTH: I will be short on this point. I should like these gentlemen to wait a minute. We are told in this Association that we are to be considerably in debt. What is the best way we can fix it, when we leave here? It comes from the officers.

Therefore, gentlemen, I move that our Executive Committee, with the Treasurer, be instructed to bring forward at their next meeting, a plan to free ourselves from debt, so that we shall commence our next session free from debt; and I hope also that they will then bring forward a plan by which we shall be free from debt for the future. And this will be a point. We must start somewhere.

Therefore I move that our Executive

Committee be instructed to consider this matter, and to bring forward some plan which shall free us from debt.

The motion was seconded and agreed to.

THE PRESIDENT: I would state that the Executive Committee last year had this matter under consideration, as they have had all the time. As one item towards paying our expenses, we have passed a resolution that all who exhibit in the Exhibition articles for sale shall pay ten dollars, and we have collected, I believe, from most of such exhibitors—quite all, I believe. It is no more than fair, that persons exhibiting articles for sale should pay their part of the expenses, and our judgment was that each firm and person was to pay ten dollars.

Mr. Southworth announced that the Committee on the Duties of Vice-President had held a meeting, and adjourned to 1874 Convention.

MR. WEBSTER: There is a portion of the insurance business which has not been settled. I move that it be called up now.

I move further, that J. C. Elrod, the Chairman of the Committee on Fire Insurance, be called upon to make some statement in regard to the action of that committee.

THE PRESIDENT: We shall be glad to hear from that committee; it is a report that has been long due.

MR. ELROD: In reference to that committee, I should say, that I was appointed on that committee. I entered upon the work with a great deal of zeal.

I was promised support by the President, and by the editors of the different journals, by all the prominent men in the Society.

There were two other men put on the committee, and I worked hard for the first year. The results, I must say, have been very poor.

I have received no support whatever. It seems as though it was impossible to get either one of the journals to say a word about it, without begging for it.

I must say that I have simply concluded, to ask to be excused from any further labors.

THE PRESIDENT: That is reporting progress, and asking to be discharged.

MR. ELROD: This looks discouraging. It looks like getting up to make a speech before empty benches.

THE PRESIDENT: As I take it, the chairman reports progress, and asks to be discharged.

MR. WEBSTER: Mr. President, I move that the subject be held by the same chairman, and that he suggest as coadjutors on the committee, the names of some members he would like to have on the committee, and then perhaps there will be something done by the committee.

MR. ELROD: The Committee was too large. That is what was the matter. Make it a small committee, and have but few on it. There are but three members.

MR. WEBSTER: As published in the *Photographer* there were ten.

MR. ELROD: I invited some thirty members to co-operate with me, and I visited Baltimore twice, and wrote a great many letters, but received no replies. And it is a pretty hard thing for a man to work without results

THE PRESIDENT: What will you do, gentlemen, with regard to this committee? I would say, that after the appointment of that committee, although I was not on, I made some considerable inquiries, and found that the project was a larger undertaking than we had calculated.

It is a good deal of an undertaking to get stock taken in an insurance company. It requires a good deal of money—a great many thousands of dollars. As soon as I found it out, I got discouraged and stopped. I believe that it would be a grand thing to get up a company that we could all patronize without paying an exorbitant price for insurance, because it is an undoubted fact that we are paying a much higher rate than we ought to, because they say it is extra-hazardous. But you will find that we get burned out often enough; but somebody else burns us out. That is the usual style, but I hardly think we are repaid for it. You must judge.

MR. SHERMAN: I move that the report of the committee be accepted, and the committee discharged from further service.

MR. HESLER: I want to say that when we meet in Chicago, that I hope you will

all come, and we will entertain you, and make it a success.

THE PRESIDENT: The motion of Mr. Sherman is seconded, that the report be accepted and the committee be discharged.

The motion is agreed to.

THE PRESIDENT: I now call for the report of the Committee on Foreign Medals.

MR. WILSON: I will read the

REPORT OF THE COMMITTEE ON THE AWARD OF THE FOREIGN MEDALS.

MR. PRESIDENT AND MEMBERS OF THE N.P.A.: Your committee cannot but regret the limited number of foreign exhibitors; and while we take pleasure in making mention of the beautiful specimens of "burnt-in enamels," by Robinson & Cherrill, we still feel unanimous in awarding the medal to Marshal Wane, of the Isle of Man, for his elegant specimens of pure and artistic photography.

J. H. KENT,
DANIEL BENDANN,
R. J. CHUTE,
FRANK JEWELL,
F. E. PEARSALL.

On motion the report was adopted.

MR. BAKER: I have another invitation for you which has just come in. It is from the Buffalo Mechanics' Institute. This invitation is in reference to an exhibition to be held in the fall in the Rink, inviting members of the Association to exhibit; the time and place will be published in the *Philadelphia Photographer*.*

THE PRESIDENT: I wish to announce that the papers which have been received by us, and not read, on account of want of time, will be published with the printed report.

I have a telegram here from Mr. Z. P. McMillen, Galesburg, Ill., saying, "All hail! It is only the body that is absent!" (Applause.)

If you have any new motions, let us have them right away.

MR. WILSON: Mr. Shaw hands up a paper to us, which contains an apology, regretting he has served summonses upon some of the members, and he feels satisfied with the treatment that he has received so far and gratified with it, and wishes that the paper be published.

MR. SHAW: I would say that I am perfectly satisfied with the action of the members, and with the treatment that I have received here, and I wish to apologize that any member has been served, and I would say that any member who is here can return the papers. I wish to discontinue all the proceedings, and without expense to them.

MR. WILSON: I move that Mr. Shaw's paper be received, and published as his apology, mentioned by him.

The motion was agreed to.

MR. SHAW: That is perfectly satisfactory to me. I thank the Convention for the manner in which they have treated me.

COMMUNICATION FROM J. SHAW.

MR. PRESIDENT: I would like, and I think I owe it to the members of this Association, to make a few words of apology for some things which have taken place here; and in order that the subject may be fairly understood a few words of explanation seem necessary, but I will be as brief as possible.

I would state, therefore, that about one year ago, immediately after the reissuing of my present patent, I called upon President Bogardus, and informed him that a reissue of my patent had been granted, and asked him if he would take a license under the reissue. He seemed very much astonished at the idea that I had obtained a reissue, and replied that he would like a little time to consider the subject; that he would call the attention of the Executive Committee to the matter at their next meeting, and perhaps they might deem it best to investigate the subject, and probably might take some legal advice, and if it should be found that I had a good and valid patent, he should be the very last to oppose it; that, at all events, whatever action they might take, and without regard to the opinion which the Executive Committee might arrive at, I could rest assured that he for one should never again contest my patent before the courts, and he did not believe that there was a single member of the Association who would; that the Association would not at all events, and he advised and requested me to let everything in regard to the matter rest just where it was, until they had time to investigate it fully. I agreed to do so, and I have kept the agreement faithfully until I came up to this Convention.

In the meantime I had learned of the action

* See advertisement in this issue.—ED.

of the Executive Committee in taking legal advice, and had obtained a copy of the legal opinions taken, and had also received from our Secretary, Mr. Wilson, a copy of the resolution referring the subject to this Convention. Now, I ask you, gentlemen, if, under all the circumstances here presented, I was in the least out of order in presenting the paper which I did for your consideration on Tuesday morning last? I was present when that paper was read, and saw the manner of its reception, and the disposition made of it; and the impression conveyed to my mind by that action, and the disposition made of the paper, was that every member present supposed that to be the final disposition of the whole subject; and I must confess, gentlemen, that I was aggrieved, and did feel that I had been treated in a disrespectful manner by this Association, of which I am a member. And I did go forward and have several summonses prepared, and I commenced having them served, as I came to the conclusion that if this Association deemed the matter beneath notice after all the time they or its officers had taken to consider it, that the individual members would certainly so consider it beneath their notice, and had a perfect right to so consider it, and, therefore, it was absurd for me to expect any consideration except in the courts, and as no other resort seemed left to me, I came to the conclusion that the sooner I took it there the better. But after commencing to serve summonses at the Tifft House, President Bogardus came to me and promised to have the matter reconsidered. And I will say that now, since the matter has been reconsidered, that I am perfectly satisfied with the action taken, and I am ready now, if the gentlemen who have received summonses will return them to me, to cancel them, and discharge all of the suits commenced, and without cost to the defendants.

I would like to state further, that I am here now prepared to issue licenses to every one who wishes, for the use of my patent, upon the terms of either of my first two propositions, and I would be glad to meet any of you after this meeting closes, at any place most convenient for you, for that purpose.

I would state also, that if there are any here present who would like to consider my third proposition, in regard to the formation of a company, I would be glad to meet them in a body together, at some time and place most convenient for them, to consider that question.

That is virtually a matter for your individual choice; but in regard to licenses I should deem it a favor if every one here who wishes one would procure it before leaving for home, as you can thereby save me a large amount of time, money, and correspondence, for which I shall feel very grateful.

The President: If there are any new motions I should like to have them presented at once.

Mr Southworth: Mr. President and Members—This matter of debt I should like to speak about; I am a little one side of it just now. We have had a long session, and, take it altogether, to me it has been a very unsatisfactory one. We have had a great amount of literature brought in here to be printed, and, now I say I stand here on my own motion, and not by suggestion or by the invitation of anybody. Our Permanent Secretary has served us for years, and has not received the money from the treasury allowed him by the constitution. He has also always published our proceedings free of charge; is going to publish these proceedings in the *Philadelphia Photographer*. But he begins to feel it. I see it when he is looking at it. He begins to feel that it is going to be a load to be dreaded. He has been in the habit of sending the reports of these conventions, in the *Philadelphia Photographer*, all over the country. These reports help us, and every new member helps us. These reports bring in new members, not as was suggested yesterday, that they make this an excuse for not joining; and generally it helps them to join us. We have voted here to have paper after paper printed, and we have not voted the expenses for them, and we are in debt besides.

Mr. President, I rise to move that the Executive Committee consider the extra expense of the publication of the proceedings of this Association. So much of it as is one side of the private property of Mr. Wilson, such as our votes, &c., to print certain papers, so much of it be borne, that is, the expense of the printing, be borne by the Association.

I make a distinction, and a distinct motion that so much of the report that is extra above what is usually given to the regular subscribers, and so much as we have voted to have printed, that the Executive Committee arrange with him to pay the extra expense of printing and paper.

Mr. Singhi: I would like to second that motion for this reason; I expected to come out here, and it would cost me forty or fifty dollars, perhaps more than that; but I would say that instead of that I have made four hundred dollars; one hundred dollars in shaking hands, and three hundred dollars in knowledge. (Laughter and applause.)

Mr. Collins: I think the gentleman is not alone. I claim more than that; that would not half pay me.

The question was then called for, and unanimously agreed to.

Mr. Southworth: I will not occupy your time three minutes without a motion, and then I have done for this year. When you go home in your societies, and when you form new societies, if you have them not, go in for a library of photographic knowledge. (Applause.)

Go in for every book that ever has been published upon photography, even the very first one that was put out in New York about the time that Prof. Morse spread them broadcast. It is a little description of daguerreotyping. Get that into your libraries; get what is useful to you, and keep the other for curiosity, and you will then see the improvements in photography that are going about every day through the country.

Two months ago I started this idea in Boston, and carried in my books and contributions as a commencement of the library. Go and do the same, and, in doing so, don't you forget to put in the periodicals of the day—the photographic literature—the *Philadelphia Photographer*, and Anthony's *Bulletin*, and the *Photographer's Friend*, published in Baltimore, and, although I have not had that for the last two months, I receive the other two every month. There has not been a number published last year but what is worth more than two years' subscription—not one single number. At any rate, there has not been a number that I would part with. And then I would say this, I cannot conceive how a book like the *Philadelphia Photographer*, with a picture in it, can be sold for fifty cents. It is no price at all. I do not see how a man can publish it, and get out of it at all, at the price it is offered at. So much on that single point.

My next idea is the one I have suggested three times. I repeat it again. We have come nearer making this Convention a school of photographic art than ever before. We have come nearer to it to-day; and I would say to you and to all the Executive Committee, as an inividual, I want to see on the platform every kind of apparatus for making our off-hand illustrations. We can have them before the audience. Then I want these gentlemen who have come a long way, and at great expense, to get the benefit of the operations which are done before them, and then we can go through all the operations of the art, and that will save the time of the Association, and we shall not be obliged to listen to papers for more than two hours at a time, and the time of the Association will not be spent in reading formulæ which no one of us know three minutes afterwards. If we must read them in the book for ourselves, we can then take them down in pencil, and not have our time occupied in the readings of long essays, some of them most splendid; nor let it be taken up with other things, but let us have intelligent conversations and discussions. Let us encourage those who are learning the A B C of the art; and it is better that they should not come here and ask us questions in chemistry before they know a thing about it. Let those who are lecturing on chemistry, as Mr. Clemons was, let him go through the paper without occupying half the time in asking questions which the merest tyro should know. Do not let us encourage that in beginners. I know it is difficult to draw the line; that is one thing which takes up our time so much.

Mr. President and members of the Association, excuse my forwardness and feeling in this matter. My time is over thirty years—it is a generation—and I am about done. What I do, I must do quickly. Excuse my zeal, it has overcome me. If I have injured any one in their feelings, it has been unintentional. I hope every one will go away with comfortable feelings, and the most hearty good-will, which I have to all of you. It has been one of the pleasantest weeks of my life, and yet we have worked

hard. And yet I must say it has been one of the most pleasant weeks of my life. (Applause.)

THE PRESIDENT: May I ask Mr. Southworth where that little Morse book can be procured?

MR. SOUTHWORTH: Mr. George W. Price would be likely to find one for you.

THE PRESIDENT: I would give five dollars for one to-day.

MR. WILSON: I would republish it, but I have not a copy.

THE PRESIDENT: We do not like to give promises for next year, but we shall change the whole course of the Convention next year, and it shall be more practical. We have learned that the papers were entirely too long, and all such matter had better be printed privately, and be put aside for the more practical work before us. We have discussed the matter with Mr. A. Hesler, and he has said that a skylight shall be built next year, to be worked by the different members, not only working it chemically, but every other way, and use it for posing.

I have spoken to two or three gentlemen who are noted as positionists, and they say they would try to be there next year, and give us examples of posing both good and bad, and other things of that kind We hope to carry that right through next year.

MR. WEBSTER: I have attended all these conventions with the exception of Boston, and am ready to say and give my voice that it has been a grand improvement thus far, so far as business is concerned, over all the other programmes as arranged heretofore. I do not know who arranged it.

THE PRESIDENT: Mr. Wilson.

MR. WEBSTER: He has made a capital hit, and the President has done his best to carry it out; therefore I think this Convention has transacted more business and done it better than any of the others. We have done it systematically, and the nice arrangement of the programme was the cause. I am willing to trust it in the hands of the same party next year.

MR. WILSON: I have a few words to say. In the first place, Mr. President, I would nominate as an honorary member of this Association Mrs. W. J. Baker. She has assisted our good Local Secretary in more ways than we can tell, and we have seen and felt her influence and her work in her quiet way. I therefore nominate her for honorary membership of this Association. I hope this motion will be seconded and carried.

MR. COLLINS: The Association has so far been a success. When we go home we want to put out a great deal better pictures.

THE PRESIDENT: We have a motion before us now.

MR. COLLINS: Excuse me; I did not hear it.

THE PRESIDENT: Is that motion of Mr. Wilson's seconded?

The motion was seconded by several parties, and agreed to unanimously.

MR. BAKER: Ladies and gentlemen, on behalf of Mrs. Baker I thank you for the honor you have done me. It is quite unexpected to me.

MR. WILSON: I wish I had a whole day to make a speech in, in favor of the vote of thanks I am about to offer to our Local Secretary, Mr. Baker. I know he will appreciate it the more because it is short; therefore I move a hearty vote of thanks, to be taken rising, to Mr. Baker, our Local Secretary.

The vote was then taken rising, and was unanimous.

MR. SINGHI: I would stand on my head all day if it were necessary to carry that.

MR. BAKER: This is no time for speech-making, but you are heartily welcome.

A vote of thanks was then tendered to the reporters of the city of Buffalo, to the express companies of Buffalo, to the Photographic Association, to the telegraph company, to the proprietors of the street railroad cars who have allowed us to put our advertisements on the cars, and also to the proprietors of the steam railroads and hotels.

THE PRESIDENT: Here is another vote of thanks. A vote of thanks was tendered to Mr. Fabronius; to the proprietor of the St. James Hall, and to the citizens in general.

MR. WILSON: I move that if anybody has been forgotten, that their names may be referred to the Executive Committee. I have tried to remember everything, but may have forgotten something.

The motion was then agreed to.

THE PRESIDENT: Is there anything more, gentlemen? If there is not, I would say before we separate that these expressions by some of the members are certainly very gratifying; and I would say, first, that this Association and Convention has been a great task to myself as well as to Mr. Wilson. We have prepared for it with a great deal of care and attention, and we have given a great deal of time to it, more so than any one would expect, and it has been in a measure, I feel, a success. There are some things, as I said yesterday, that we can remedy, and I hope, another year, for we have all got to learn. It is a new business, and especially I feel that I am in a new business, and that I am entirely out of place; but, if we have made mistakes, I hope we shall learn how to right them; for I must ask, in regard to my own conduct, that if I have wronged any one in my decisions, I ask your pardon; and if I have offended any member it has been unintentional on my part; it has only been on account of my zeal to carry on the operations of the Association successfully and smoothly. I believe we must agree, generally things have gone along very well here, although in a large body like this there will be differences of opinion; but again I ask pardon of any one whom I have offended, and I thank you all for coming here and listening so attentively and patiently. I hardly know of any body that could be brought together in such excessively hot weather and long days, and listening for three hours in one continued session to such papers as we had before us, interesting as they were. Certainly some of them were very interesting, on that extra hot day, and were more tedious than they would have been in cold weather.

Now I would say, personally, before we adjourn entirely, I would invite every one here present to be with us next year, hoping that we may not only interest but instruct every one that will come. With these few remarks, a motion to adjourn is in order.

MR. SINGHI: I move that we adjourn *sine die*.

MR. SOUTHWORTH: I second the motion.

THE PRESIDENT: It has been moved and seconded, ladies and gentlemen, that the National Photographic Association now adjourn.

The Convention then adjourned *sine die*.

EDWARD L. WILSON,
Permanent Secretary.

C. R. MORGAN, M.D.,
Phonographic Secretary.

## THE EXHIBITION.

So far as *quality* is concerned, the Exhibition was undoubtedly the best one ever held under the auspices of the Association. The number of exhibitors was perhaps not so large as at Cleveland or Philadelphia. We can account for this, because of the absence of several of our leading photographers, who are now in Europe, and who could not, of course, make their usual display. The *foreign* display was also meagre; caused, first, by the Vienna Exposition, and, secondly, by the delay in getting the articles through the red tape of the custom-house. Some elegant things did not come to hand until the last day of the Exhibition. One party in Paris was so anxious about his pictures being here that the Atlantic cable was used to further their delivery. Yet, after all, they came too late. There were pictures there, however, from India, and from many other foreign countries, and the foreign pictures were all fine.

The Exhibition was held in the Rink, on Pearl Street, near Niagara. It was none too large, and enabled Mr. Baker to arrange his uprights to great advantage. The arrangements throughout were perfect. The front of the building as well as the interior was decorated with evergreens, mottoes, &c., and did credit to Mr. Baker and his assistants. An elegant orchestra discoursed sweet music in the evenings, while a famous orchestron enlivened the day exhibition.

It was a thrilling sight to see the aisles and alcoves crowded with interested people, and an encouraging thought that American photographers had "awakened out of sleep" to such a degree as to support such a glorious institution as the National Photographic Association to even this degree, and it made one feel that there is a bright day ahead for us all.

As has been said, the quality of the work shown was far superior to that in any former exhibition. Some of the pictures were the best we ever saw. More taste and care in the arrangement and framing of them was also very apparent, and throughout the desire on the part of the exhibitors was evidently to do their very best. They deserve the greatest praise. At almost every hour of the day and evening little groups of photographers could be seen earnestly discussing the work: one criticizing and describing, and the others all attention. This, too, was an encouraging sight. The good which will follow can never be told, but it will be incalculable; and next year, at Chicago, we shall see the evidence of it, and even our present sanguine expectations exceeded.

Over two hundred new members joined the Association. All suggestions to have these grand gatherings only once in two or three years instead of each year were hooted at indignantly, and the determination is stronger than ever to uphold and upbuild the National Photographic Association.

The Exhibition opened Tuesday, July 15th, at 2 P.M., and was open daily thereafter from 10 A.M. to 10 P.M. The public attendance was encouraging, and Saturday evening the rush was perfectly immense. Thus we grow and increase in influence and in doing good for our art.

### List of Exhibitors.

FOREIGN.

F. Grasshoff, Berlin, Photographs.
Loescher & Petsch, Berlin, Photographs.
Adam Salomon, Paris, Photographs.
Robinson & Cherrill, Tunbridge Wells, Eng., one large Composition Photograph, three Photographs burned in enamel.
F. Luckhardt, Vienna, Austria, Photographs.
R. Mitchell, Holley Bank, Astley Bridge, Bolton, Eng., four Dry Plate Views.
Marshal Wane, Isle of Man, Photographs.
Claus Knudsen, Christiania, Sweden, Photographs.
Brown & Shepard, Calcutta, India, Views.
J. Levy & Co., Paris, Transparencies and Paper Prints.

DOMESTIC.

George C. Farnsworth, Buffalo, Photographs.
C. L. Pond, Buffalo, Views of California Scenery.
F. Thorp, Washington, D. C., Cabinet Card Photographs.
J. M. Elliot, Columbus, O., Photographs.
A. Hall, Chicago, Photographs.
Alva Pearsall, Brooklyn, Cabinet and Card Photographs.
C. D. Mosher, Chicago, Cabinet and Card Photographs.
J. Barhydt, Rochester, Photographs.
E. Decker, Cleveland, Cabinet Card Photographs.
G. F. E. Pearsall, Brooklyn, Photographs.
S. Root, Dubuque, Iowa, Photographs.
A. Hesler & Son, Evanston, Illinois, Photographs.
Well G. Singhi, Binghamton, N. Y., Photographs.
M. Marsh, Havana, N. Y., Views of Havana Glen, and Card Photographs.
J. Landy, Cincinnati, O., Photographs.
Bendann Bros., New York, Photographs.
German Photographic Association, New York, Photographs, Landscapes, plain and colored. Contributors: W. Klauser, W. Kurtz, O. Lewin, L. Nagel, G. W. Pach, H. Schoene, L. Pattberg & Bro., H. Renger, R. Benecke, F. Gutekunst, G. A. Flach, T. Gubelman, H. Oehrens, H. Rocher, Schwindt & Krüger, R. Walzl, P. F. Weil.
N. H. Busey, Baltimore, Photographs.
G. W. Harris, Lancaster, New York, Photographs.
American Photo-Relief Printing Co., Philadelphia, Prints on Paper and Glass.
J. Loeffler, Staten Island, N. Y., Cabinet Card Photographs.
Copelin & Son, Chicago, Photographs.
Cook Ely, Racine, Wis., Photographs.
S. F. Gay, Fall River, Mass., Cabinet Card Photographs.
F. Stuber, Bethlehem, Pa., Photographs, large and small.
H. J. Rogers, Hartford, Conn., Photographs.
J. C. Andre, Buffalo, N. Y., Photographs of Flowers.
—— Van Dusen, Detroit, Mich., Photographs.
J. W. Black, Boston, Mass., Views of the Boston Fire, and Porcelain Photographs.
Balch Bros., Boston, Cabinet Card Photographs.
Frank Jewell, Scranton, Pa., Cabinet Card Photographs.
Miss C. Dudley, Tompkinsville, N. Y., Specimens of Colored Photographs.
J. C. Mills, Penn Yan, N. Y., Mezzotints.
Irving Saunders, Alfred Centre, N. Y., Photographs.
Albert Moore, Philadelphia, Solar Prints.

E. T. Whitney, Norwalk, Conn., Photographs.
Joseph Samo, Buffalo, N. Y., Photographs.
J. Fletcher Woodward, McMinnville, Tenn., Photographs.
B. F. Battles, Akron, Ohio. Photographs.
D. R. Clark, Indianapolis, Ind., Photographs.
J. C. Goetchius, Titusville, Pa., Photographs.
Geo. L. Crosby, Hannibal, Mo., Photographs.
Benerman & Wilson, Philadelphia, Vienna Premium Pictures.
W. J. Baker, Buffalo, N. Y., Photographs, Plain and Colored and in Crayon.
J. F. Ryder, Cleveland, Ohio. Photographs.
T. S. Estabrooke, New York, Ferrotypes.
J. A. Folsom, Dansbury, Conn., Cabinet Card Photographs.
Abraham Bogardus, New York, Photographs.
J. H. Kent, Rochester, N. Y., Photographs.
Bonta & Curtis, Syracuse, N. Y., four Crayon Photographs.
A. S. Barber, Willimantic, Conn., Composition Photographs.
W. V. Ranger, Syracuse, N. Y., Photographs.
E. M. Van Aken, Lowville, N. Y., Leaf Prints.
Charles W. Buell, Warsaw, N. Y., Views and Photographs.
H. L. Bliss, Buffalo, N. Y., Photographic Views.
John G. Henning, Buffalo, N. Y., Ferrotypes.
J. A. Mather, Titusville, Solar Prints and Cabinet Cards.
J. Q. A. Tresize, Springfield, Ill., Solar Prints.
J. R. Osgood & Co., Boston, Heliotypes, from the Gray Collection at Harvard College.
L. C. Mundy, Utica, N. Y., Photographs.
George Barker, Niagara Falls, Stereoscopic Views.
Mr. Babbitt, Niagara Falls, Transparencies.
J. W. Morgeneier, Sheboygan, Wis., Photographs.
Bradley & Rulofson, San Francisco, Cal., Large Views.
J. Gurney & Son, New York, Photographs.
Smith & Motes, Atlanta, Ga., Photographs.
B. J. Edwards, of "The Grove," Hackney, England, Enlargements by a New Process.
Miss M. M. Luther, New York, Specimens of Colored Work.
H. C. Wilt, Franklin, Pa., Photographs.
A. M. Hardy, Boston, Imperial Cards.
D. Ginter, Conneautville, Pa., Display of Ferrotypes.

PHOTOGRAPHIC MATERIALS, APPARATUS, ETC.

Scovill Manufacturing Company, New York, Photographic Materials, and American Optical Co.'s Apparatus.
David Tucker & Co., Buffalo, Photographic Materials.
L. Schwartz, New York, Picture Frames.
Fairbank, Murphy & Co., Baltimore, Passepartouts.
A. M. Collins, Son & Co., Philadelphia, Cards, and Mounts for Photographs.
W. P. Slee, Poughkeepsie, Cards, and Mounts for Photographs.
F. C. Weston, Bangor, Me., Rotary Burnisher.
Anderson & Bixby, Chicago, Chairs, Stands, Boxes, &c.
W. H. Mardock & Co., New York, Photographers' Chemicals.
S. Wing, Boston, Stands, Chairs, &c.
E. & H. T. Anthony & Co., New York, Photographers' Materials.
Wilson, Hood & Co., Philadelphia, Photographers' Materials.
Charles Cooper & Co., New York, Photographers' Materials.
L. Pattberg & Bro., New York, Passepartouts.
Mrs. M. A. Thornton, Perrysburg, Ohio, Photographic Refrigerator.
R. Newell & Son, Philadelphia, Photographs, Wooden-baths and Dishes for Photographers.
L. W. Seavey, New York, Photographs and Backgrounds.
Alfred L. Hance, Philadelphia, Photographic Specialties
Morris Bird, Syracuse, N. Y., Universal Head Screen.

## OUR PICTURE.

A FEW weeks ago we had the pleasure of visiting the magnificent new studio of Mr. G. Frank E. Pearsall, No. 298 Fulton Street, Brooklyn, N. Y. We had heard much about it previously, so that our expectations were considerably elevated, yet we confess that we anticipated nothing so elaborate and beautiful and convenient as the reality proved to be.

The first floor is 128 feet deep by 22 feet wide, and on it are located the reception-room, dressing-rooms, offices, studio, laboratory, and dark-room.

We enter the reception-room, 22 feet by 60 feet, which is carpeted and furnished with excellent taste, and the walls are gorgeously, yet most tastefully, frescoed. This latter fact does not injure the effect of the pictures which hang upon the walls or stand upon easels on the floor. The whole has the appearance of a magnificent picture

gallery, and any one entering it intent upon having a picture taken, yet dreading the ordeal, is sure to be soothed into submission by the influence of this beautiful entrance parlor. Desks, &c., for the transaction of business are at the rear end of this, and opposite to them are tidy dressing-rooms, while the passage between leads to the studio. This latter department is where *we* are the most interested, of course, and we present a drawing of it, which is as good as we can get, although it gives only a feeble idea of the elegance of the studio itself. We never saw before any studio which at once impressed us so sensibly as being just what a studio *should* be as this one did

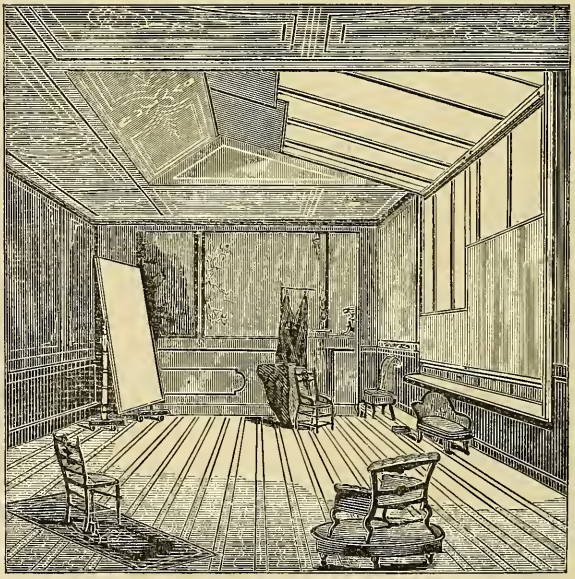
It is 42 feet long by 22 feet wide, containing a plate-glass skylight 12 x 14 feet, and a side skylight 7 x 14 feet, glazed with plate-glass; the skylights have an iron frame. They are located in the centre of the ceiling, making a right and left hand light. The frames of the backgrounds, screens, side-screens, &c., are of solid black walnut. The most approved spring-roller curtains are used inside, and outside are also canvas curtains, used to prevent the entrance of direct sunshine at certain hours of the day. Under the side-light are sliding pieces which, when moved from side to side, leave openings for ventilation; also three large ventilators in the ceiling. The ceilings are neatly and handsomely frescoed, and the floor is covered with a magnificent English Brussels carpet of appropriate pattern. The *furniture* is very elaborate, including many useful pieces not usually seen, and a wardrobe of laces, draperies, &c., for use when ladies forget such essentials, making the whole appear more like a cosy parlor than a studio, which has a good effect again upon the mind of the sitter, old or young.

As we have said, our drawing gives but a feeble idea of what the studio is. What it will *do* with Mr. Pearsall at work in it, we have proof of in the picture accompanying our magazine this month. It is a model of delicacy, softness, and cleanliness, and full of technical beauty. Any effect at all may be attained in this gallery, Mr. Pearsall assures us, and we are sure we cannot see why not, for in such an elegantly apportioned studio a good photographer ought to be able to do anything. Not only his studio, but his work is a great credit to the energy and good judgment of the enterprising young proprietor.

The second floor is supplied with most complete arrangements for printing, toning, and finishing, and heating apparatus, for the prints are fixed, toned, and washed in warm or hot solutions. The washing-trays are porcelain-lined, the paper is cut before printing, and Slee's cards are used for mounting.

We would be surprised to see anything but first-class work turned out of such a place.

The prints were made for us by Mr. William H. Rhoads, No. 1800 Frankford Avenue, Philadelphia, and were trimmed with a Robinson trimmer. We hope they will be studied carefully, and their lessons be of value to our readers.



## GERMAN CORRESPONDENCE.

*Photography — The Vienna Exhibition — North America—Brazil—England.*

For the past eight days I have been again in Vienna, not only for the purpose of enjoying the exhibition, which is now in complete order, but also to study it; and to sit in judgment on its merits, for, O horror! I am again on the jury, a position in which so far I have not had a pleasant experience.

Unfortunately I am not in the position yet to communicate the decision of the judges, and many a beating heart will have to wait anxiously for it, for the labors of the judges will hardly be concluded before the first of August. If, therefore, the coveted distinction is slow in coming, the Americans may console themselves with the fact that they are photographically well, nay, very well represented, and here few but good ones will certainly find acknowledgment.

The exhibition is of gigantic size, and extends like the skeleton of a mastodon. It contains more of the beautiful than the French Exhibition, but the beautiful is hard to find, and those who are not provided with a good guide will pass by thousands of objects without noticing them particularly, as the search in the enormous space fatigues, time and strength is lost, and one despairs of finding anything. Mr. Horing, the President of the Vienna Photographic Society, deserves great credit in this respect, for he has written a *Guide-Book to the Photographic Part of the Exhibition*, which in a small compass enumerates all the places where photographs can be found, and indicates at the same time what they represent.

If no such guide existed, photographers and jurors should be pitied. Only one thing more is wanted to make everything complete, that is a velocipede, but I doubt whether this will be permitted, and the distances have to be trotted on foot. There is, however, one consolation for the weary wanderer, provided he is not a temperance man, for on his way he meets everywhere with refreshment, particularly the splendid Vienna beer, the finest in the world and many a temperance advocate has already been converted by it.

But to our purpose—to photography at the Vienna Exhibition. More than three hundred photographers are represented—a very handsome display, but very unequally distributed. England is very feebly represented, so also is France (Adam Salomon is amongst the missing ones). The United States are better represented; not so well Germany, Russia, and the Austrian dominions.

Regarding the American exhibition, I would like to exclaim, with the German professor, "I see a good many who are not there!"

Where are the splendid enlargements of Moore, of Philadelphia? Where are Rutherfurd's celebrated sun and star pictures? Where are Kilburn's stereos? Where Scholten's portraits? Sarony, Bogardus, and the Zentmayer lens? Nothing of all this is to be seen; but in spite of all this America may rest satisfied, for although much is wanting, still there are present excellent representatives of American photography, and I must confess that your country has never before been represented so well in a European exhibition. Only now the European public has had an opportunity of forming an idea what beautiful pictures are made, and can be made, in America.

There for instance is Kurtz, the eminent New York artist, Mr. Howell, Anthony, Bierstadt, Rocher, and from the Far West, Watkins, Houseworth, and Muybridge. The American section is small, but very advantageously located. The first wing of the great palace, nearest to the city, is devoted to it, and the most frequented western gate leads the visitor directly into the American exhibition, and the first step which he takes in the palace, nay, even before he has paid the first guilder or half guilder admission fee, he is confronted by the gigantic tableau of Mr. Kurtz, a magnificent frame decorated in the most artistic manner, with architectural designs, which contains in its covered sections, perhaps, the best which ever has been made in America photographically. It is difficult to determine which is the best. I state the worst photographer may sometimes make a good picture accidentally, and the best photographer may sometimes make a bad picture without

any fault of his. A good picture does not, therefore, indicate an artist, but the artist selects the best pictures that he has produced, perhaps, sometimes by lucky accidents, and leaves the poor ones at home; in short, that he himself knows what is good and what inferior. This critical selection we often miss. Many make a fine picture and do not know its merits. This want of knowledge becomes evident in public exhibitions. We notice three or four handsome pictures of the same firm, and become favorably impressed, but all at once we see some awful ones made by the same person, and our judgment is at once reversed. "The man does not know himself what he is making, else he would not have sent these pictures," is said of him.

When we place ourselves opposite to the frame of Mr. Kurtz, and examine it thoroughly, we must confess that it does not contain a single picture which lacks taste. Scarcely a second one has made his selection with such a fine appreciation. I share this opinion with many others and express it openly.

Very interesting is a comparison with the tableau of Mr. Howell. Both are very similar, and it is said that Mr. Howell's design is a copy of Mr. Kurtz's. It is well that Mr. Howell takes such a model, and very flattering for Mr. Kurtz, but the difference between the two exhibitors strikes the eye at once. As much as I admire the easy technical execution of Mr. Howell, and acknowledge that in many instances the illumination gives great effects, although many are beautiful in pose and drapery, still one feels that the finished art-feeling of Kurtz is wanting.

The school of Kurtz manifests itself also, if I am not mistaken, in the excellent pictures of Landy, in Cincinnati. The Rembrandt illumination, which, curious enough, the father of the Rembrandt effect (Kurtz) but rarely employs, the graduated backgrounds, and a certain peculiar, perhaps a little too hard and abrupt transition from light to shade, distinguish these pictures. With his baby pictures, Mr. Landy surprises photographers as well as artists.

A certain peculiar technical method distinguishes at present Mr. Rocher, of Chicago. He has not sent us any Rembrandts, but he tries to place the figure in harmony with its surroundings, and to bring about a happy arrangement of person, furniture, and background, which set off the person to the best advantage. In fact, we forget the atelier in looking at these pictures, and believe we see a real room. We can only approve of these pictures; it is the way which Loescher & Petsch first indicated.

Less fortunate is Van Loo, of Cincinnati. He also likes backgrounds and a picturesque arrangement of the figure. The painted background, however, is never so agreeable as the real plastic background of Rocher. Original are the still-life pictures in which many splendidly posed boys are represented, and which requires only a plastic background. Nothing is more difficult to make than a photographic still-life picture. The person, the costume, furniture, background, action, all have to harmonize if the result is to be satisfactory.

The large heads of Schwindt & Kruger in New York excite particular interest. They are taken directly from nature, and, considering the technical difficulties, they deserve much credit.

America has, however, not only sent portraits but landscapes also. I mention only the glories of the Yosemite, which are now spread over the whole world, as well as the Niagara by Anthony and Bierstadt, as stereos. Unfortunately the manner in which they are framed makes it impossible to look at them as stereographs. But above all we must mention the large sheets, 45–55 centimetres, scenes from the Yosemite Valley, by Watkins, Houseworth, and Muybridge. These are glorious specimens of landscapes, worthy of the magnificent scenery which they represent. There is plastic sharpness, air, perspective, harmony, and softness. Muybridge, above all others, is distinguished by superb cloud effects, which, in these large pictures, look extraordinary fine.

American apparatus is also very well represented. The American Optical Company, New York (Scovill Manufacturing Company), show some exquisitely finished apparatus as complete as they can be—strong and elegant. Anthony sends several

of his best cameras, camera-stands and scopes. Spahn exhibits a very original camera-stand which, by an easy movement of the hands and without screws or levers, can be raised and lowered; it carries besides a black screen, which when moved backwards dispenses with the focussing-cloth, while when moved forward it protects the objective from side-light. I notice with pleasure the astonishment of European photographers when they examine the peculiar construction of American apparatus. A plate-holder from which the shutter can be entirely removed during exposure, a plate-holder with glass corners, are almost unheard of here; so also is the American stereoscope. We will have to learn in this respect from the Americans, as well as we have profited already in another respect, in the consumption of American drinks, such as cream soda, sherry cobblers, &c, which have found a great many admirers here.

While speaking of America I will mention at once the productions of South America: they are in the same building as the American section. In the midst of fans of parrot-feathers we find some pictures by Henshel & Bengue of Rio; amongst them, two enlargements, the one representing a native, the other is an historical composition with living pictures—Judith with the head of Holofernes. The head belongs, of course, to a living person, whose body is very much covered by the dress of Judith. These pictures belong to a branch of art which goes beyond the realm of photography; such pictures do not make the impression of an historical picture, but at most of a scene at the theatre. A still-life picture is always very difficult to compose, but historical pictures cannot be made at all, no matter how much of antique furniture, drapery, and costumes we drag together; finally, a modern man or woman is in it, which cuts a modern face.

The case is different when such attempts are made in order to furnish the art-student with samples. In this respect the sheets of Mrs. Cameron are interesting, and which leads me to the English exhibition. Mrs. Cameron is a riddle. We discover in her pictures such great shortcomings in their technical execution as we would hardly excuse from the merest beginner,—streaks, want of sharpness, spots, monotony, or hardness—in short, all the virtues of a negative character, and, on the other hand, so much sense for art, that we cannot help but admire. She undertakes things with much boldness. By the aid of a costumed woman she represents St. Agnes; she ties wings to the backs of two boys and represents them as angels; but she selects her models with much skill, and knows so well how to use them, that, in spite of many doubts, one has to acknowledge the result.

It seems almost as if she had found in England imitators. A Mr. Crawshay, for instance, exhibits life-size heads which technically are better than those of Mrs. Cameron, and which are intended to represent something, but actually represent nothing, for when I write under the picture of a black-haired, and by no means handsome woman, ever so many times the words "Black Diamond," I would not give a cent for these diamonds; still less do I feel myself drawn to an indifferent face of almost more than life-size, under which the words "Full-blown Rose" are written. Of the other large heads which distinguish themselves more by the title than by anything else, I will not speak.

Colonel Stuart Wortley, "the dry-plate man," has also sent large heads from life (43x35 centimetres). According to his statement, these are made on dry plates; and we have to admire the patience of the sitter, as much as the patience of the photographer. I like his well-executed shore and sky studies much better. Of his dry-plate experiments I have not seen anything, with the exception of the above heads. Beasley, on the other hand, has exhibited landscapes made on dry plates, which are very successful. We find plates which had been exposed one hundred and twenty days after they had been sensitized, and which were developed twenty days later. Unfortunately, Mr. Beasley does not describe his process.

Of landscape photographers, we miss Mr. Bedford, England, and Mudd. Brownrigg and Robinson have exhibited some landscapes.

Robinson & Cherrill exhibit some of

the finest landscapes in the exhibition; for instance, the surf with flying sea-gulls; a wood landscape with evening effects; and some splendid cloud pictures; not to forget a beautiful little picture, "Waiting at the Stile."

I mention the London Photographic and Stereoscopic Company, which exhibits handsome cards of celebrities of the day, and also Roane & Douglas, who work in Salomon's style, but avoid his hardness. They have furnished some handsome single portraits as well as groups. A peculiar group I will mention before I close. It is a picture of about thirty inches; a carbon print, which makes the impression as if it had been copied from a drawing instead of from life. More anon.

Yours truly,
DR. H. VOGEL.

# Editor's Table.

OUR REPORT.—Some of our good friends at Buffalo seemed to think that they could gradually see us growing more and more dismayed as the proceedings continued, at the amount of matter we should have to publish in order to make a complete report of the proceedings of the Convention. Not we. We have "stood up" to it all, and you have it in your hands, we believe, complete and entire. We would be immodest if we were to suggest that our readers ought to commend the publishers for their enterprise, in giving them the whole—a number equal to six months of our magazine—in about three weeks after the close of the Convention, and that we feel that they ought to try very hard to secure us many new subscribers (for we assure you they are needed to support such extravagance as this), so we will not say it. We leave it to you, and trust that you may derive much benefit from the perusal of this interesting report.

In our next number we hope to give a general review of it, and to point out some matters needing special attention.

THE NATIONAL PHOTOGRAPHIC ASSOCIATION.—What ought we to do about the N. P. A.? Ought not an association that is instrumental in collecting and diffusing so much real, solid good for the enlightenment of photographers be better supported than this? We cannot calculate the good that it does; but it must languish unless it is better supported. Its officers have spent of their strength and of their money to support it; they now rightly look for aid to you. The money is needed *at once*. The Conventions are a big expense over and above the receipts. Remit your advanced and back dues promptly; and, where you can, make a voluntary contribution. The Executive Committee will ask you to do it. *Do it now and get ahead of them.*

OUR VISIT TO EUROPE.—If matters progress as we now expect they will, we sail from New York on the Cunard steamer Cuba for Liverpool, Aug. 13th, and from thence we hope to make a tour through parts of England, Scotland, France, Germany, Switzerland, and Italy, returning about November 1st. Ample preparations have been made for careful attention to the interests of our readers during our absence, and they will please address the publishers whenever they need any assistance they can render.

Although we have labored hard for photography during the ten years since we assumed the care of this magazine, and physically need a change and a cessation from work, yet we could not be induced to absent ourselves from our post at this time did we not believe we could better subserve the interests of photography by doing so.

We shall go with "eyes and ears open tight," and expect to gather much useful information from contact with our co-workers abroad. What we *do* learn, of course you shall have the benefit of. The great Centennial Exposition, to be held in this city in 1876, must also have the careful attention of us all, and we go to Vienna with the special purpose of making notes for *our* great world's fair.

We trust that no one will be inconvenienced by this absence, and that our friends will act with their usual generosity and apprise our publishers of all matters of interest that may come up during our absence. We hope to come back to our work well strengthened for another ten years' strife for the uplifting of our art and its votaries. With this we hope we give you enough to keep you busy until our return. Farewell.

WE are obliged to lay over much good matter for our next. The reason is obvious.

# SUPPLEMENT.

As will be seen by the report of the proceedings of the National Photographic Association at Buffalo, N. Y., July, 1873, to which this is a supplement, certain propositions* were read from Jehyleman Shaw respecting his patent for recovering gold and silver from spent photographic solutions. It was ruled that the Association could not, as an association, act in the matter, and, after adjournment, a committee of the whole met Mr. Shaw, when he made the following propositions:

## MR. SHAW'S PROPOSITIONS.

BUFFALO, N. Y., July 18th, 1873.

I propose that, if each photographer wishes to settle this matter with me individually, I will grant to each a license to use my patent, upon either of the three following conditions:

1st. If any one see fit to send me the waste saved by him to be reduced, I will work it for him and return three-fourths of the amount recovered from all of his waste.

2d. If, however, he chooses to dispose of his waste in some other manner, I will then grant him a license to use my patent upon the payment by him of a small royalty—say about ten per cent. of the amount of his waste annually.

3d. If any number of photographers here present wish to form a company to buy my patent outright, for the purpose of giving to the members of such a company the free use of the patent, I will take the sum of two hundred thousand dollars for my patent; or, if they will organize a company with a capital stock of say three hundred thousand dollars, I will accept seventy-five thousand dollars in money, and one hundred and fifty thousand dollars of the stock of such a company as consideration for my patent.

J. SHAW.

* See pages 298 and 348.

After a discussion of these propositions, the committee made the following suggestions to the Association:

## SUGGESTIONS OF THE COMMITTEE OF THE WHOLE ON MR. SHAW'S PROPOSITIONS.

BUFFALO, N. Y., July 18th, 1873.

It is suggested that the entire patent, together with the opinion of the official counsel of the Association, Mr. E. Y. Bell, of New York, and the propositions of Mr. Shaw, and the suggestions of this committee, be published as advertisements in the official organ of the National Photographic Association, the *Philadelphia Photographer*, by the Association, for the information and benefit of its members.

It is also suggested that as the members of this committee, as individuals, having met and consulted with Mr. Shaw upon the specifications and claims of his patent, and having also heard from Mr. Rhoads of the late Executive Committee of the Association in regard to the reports obtained by them from the counsel of the Association, have come to the conclusion that it would be far better for us, as individuals, to make some amicable arrangements with Mr. Shaw for the use of his patent, than to take the chance of being led into an expensive litigation which might cost each one of us from one thousand to two thousand dollars before we are through with it. We recommend that the proposition submitted by Mr. Shaw to us be considered by all, and determine whether it would be best for us to make individual settlements with him, or form a company for the purchase of the patent, as suggested in his third proposition.

H. L. BINGHAM, FRANK JEWELL,
I. B. WEBSTER, SAM. B. REVENAUGH.

The suggestion as to printing Mr. Shaw's specifications, and Mr. Bell's opinion, were adopted

by the Association (see report of the proceedings), and they are accordingly given below.

## MR. SHAW'S PATENT.

### 4970.

### UNITED STATES PATENT OFFICE.

JEHYLEMAN SHAW, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN PROCESSES OF RECOVERING GOLD AND SILVER FROM WASTE SOLUTIONS.

*Specification forming part of Letters-Patent No* 35,842, *dated July* 8, 1862; *reissue No.* 1651, *dated April* 5, 1864; *reissue No.* 3506, *dated June* 15, 1869; *reissue No.* 4030, *dated June* 14, 1870; *reissue No.* 4970, *dated July* 9, 1872.

DIVISION B.

*To all whom it may concern:* Be it known that I, JEHYLEMAN SHAW, of Bridgeport, in the County of Fairfield and State of Connecticut, have invented a new and useful process for recovering the gold and silver from what are known in the arts as the washings or waste solutions of photography; and I do hereby declare the following to be a sufficiently clear, full, and exact description thereof to enable those skilled to understand and use the invention.

Previous to my invention it was customary in the practice of the art of photography to allow the washings or waste and spent solutions to run off, and the gold and silver therein contained to be lost, because there was no known process or method by which the gold and silver contained in very small quantities in such solutions could be recovered economically enough to render the use of such process remunerative or advantageous. It had long been known that various chemical ingredients would operate as "precipitants" of gold and silver held in solution; and in the arts some of these known "precipitants" were generally employed, the most generally used in the arts for the precipitation of silver being common salt for "nitrate solutions" of silver, and muriatic acid for the "cyanide solutions." These two solutions of silver were in fact about the only ones in use in the arts at the time photographic waste solutions came into existence (as consequents to the collodion process of photography), and in the extraction of the silver common salt was most used and best adapted to be as a precipitant of the nitrate solution (of the assayer), and muriatic acid as a precipitant of the cyanide solution of the electroplater; though, as I have said, it was known to chemists that other materials—such for instance as protosulphate of iron, muriate of tin, soluble sulphuret of potassa, &c.—would operate as precipitants of silver.

I discovered by experiment and observation that in the practice of photography only about or less than one-fourth of the silver used remained in the picture, and consequently at least three-fourths of all the silver used ran to waste in the washings, and I set to work to devise means for the economic recovery of the silver from the washings; but upon the application of the best known precipitants, viz., salt and muriatic acid, I discovered that these precipitants would not serve the desired purpose at all. I found that these precipitants, though the best in use in connection with such solutions as were before known in the arts (because they would throw down the silver in pure chloride of silver, unmixed with other metal), were useless as precipitants of the silver of these photographic washings, because in the latter there was such a minute quantity of silver compared with the quantity of solution, and because of the totally different chemical character of these diluted solutions, I found that the salt, which would throw down most of the silver in the usual "nitrate" solutions used in the arts, would not answer as a precipitant of the new kind of solutions which possessed so small an amount of silver, and were made up of the iodide and bromide of silver, together with the cyanide of potassium, hyposulphite of soda, &c., and which would hold the silver in solution, no matter how much salt might be added, and I found that muriatic acid could not be used with any practical success, because it would not precipitate unless enough were added to decompose the alkalies, and this would cost more than the silver to be recovered was worth.

Finding the nature of these new solutions (in which existed the silver to be recovered) was entirely different from that of solutions before known in the arts, that the same course of treatment for "precipitation" could not be successfully applied to them with any advantageous results, and finding nowhere any instruction to those skilled in the arts for recovering the silver from such solutions, I set to work to learn the precise nature of the solutions, and what precipitants could be successfully used with them, if any, and how such precipitants should be applied.

It will be understood that, as in the photographic art, there are several different kinds of washings or waste solutions, it was necessary to experiment with each separately, as what might induce to a certain chemical action on one might

not affect another, and that as the question of economy in the ingredients employed and in the working of the process were vital essentials, because of the minute amount of silver obtainable from a very large quantity of the washings, it would be necessary to find some simple and cheap process by which all the washings could be treated and all the silver recovered. In the course of a long series of experiments I discovered that while salt would throw down most of the silver in the "negative bath" solution, and that many other precipitants would throw down the silver from some of the solutions, many of the precipitants would answer for one and not for another of the solutions; that some were too expensive, and some were so slow in their action, that too much accumulation of the solutions and complication of apparatus would be required in practice; and I discovered that, of all things known in chemistry as "precipitants" of the silver and gold held in solution, the sulphuret of potassium was the only material which could be successfully employed to precipitate the gold and silver from the mixed washings or waste solutions; and as the problem to be solved required the treatment of all the solutions together, or the treatment of the "mixed washings," the discovery of the capacity of the sulphuret of potassium to effect this result enabled me to accomplish the new object aimed at, viz., the recovery, in a practically successful manner, of all the silver from all the waste washings and spent solutions of the photographic establishment.

It will be understood, then, that based upon this discovery rests my invention, which consists in the use, in any suitable apparatus in which the spent solutions or mixed washings of the photographer are accumulated, of the sulphuret of potassium, to precipitate from such solutions all their contained gold and silver.

In carrying out this precipitation of the metals the precipitant should be so applied that the washings will come into contact all the time with it to keep up the chemical action, and so that its action cannot be impeded or impaired by any accumulation about it of the sediment or deposit; and to gain these objects, which are essential, I propose to provide a suitable vessel (adapted either to catch the washings from the sinks or basins, or to answer as a substitute for such receptacles for washings) in which is provided a bag or cage for holding the precipitant, arranged near where the washings enter the vessel, and some distance above the locality at which the deposit will form I propose to have this vessel divided into compartments and otherwise so made that the washings can come in continual fresh contact with the "precipitant," and so that the particles precipitated will be prevented from flowing off or escaping with the water and its other contained ingredients.

The construction and operation of the apparatus alluded to will be found fully described in another application filed simultaneously with this, and forming the subject for Letters-Patent for said apparatus.

It will be understood that in the treatment of such solutions as those to which my invention relates the quantity of gold and silver to be recovered (or contained in them) is very minute compared with the quantity of solution to be treated, and that the whole amount of contained silver does not exceed the percentage of silver which generally remains in the assayer's solution after he has performed on such solution the usual process of precipitation; and it will be understood that in the treatment of the mixed washings with the sulphuret of potassium, as described, the washings come into contact with the precipitant (receptacle) and dissolving portions of it mingle therewith, and a reaction takes place among the elements present, the silver, leaving the elements with which it was combined, unites with the sulphur, and, forming a precipitant, settles down to the bottom of the vessel. As the waste solutions are slowly and almost continually entering the vessel (during the progress of the business of washing the pictures), they come into contact with the precipitant, and as the freshly-supplied solution is entering into the process of precipitation that which has undergone it is gradually passing on toward the bottom of the vessel, and thence up to the exit, and the precipitate passes on down and settles with the mass or deposit at the bottom of the vessel.

In practicing my process for the recovery of the silver from mixed waste washings of photographers I propose to use such an apparatus as described in and made the subject of the other application filed by me simultaneously with this, but it will be understood, however, that the invention made the subject of this application may be practiced in a different apparatus, the gist of my invention resting in the idea of extracting the silver by bringing the mixed washings and spent solutions into contact, substantially as described, with the sulphuret of potassium.

Having explained my invention so that those skilled can readily understand it, what I claim as new, and desire to secure by Letters-Patent, is—

The within-described process for recovering

the silver and gold from spent or mixed photographic solutions and washings by the use of sulphuret of potassium, substantially as described.

In testimony whereof I have hereunto set my hand and seal this 1st day of June, 1872.

JEHYLEMAN SHAW. [L. S.]

In presence of—
J. N. McINTIRE,
JACOB FELBEL.

## OPINION OF E. Y. BELL, ESQ.

43 WALL STREET,
NEW YORK, January 11th, 1873.

TO THE EXECUTIVE COMMITTEE OF THE N.P.A.:

GENTLEMEN: In compliance with your request for my written opinion upon the last reissued patent of Jehyleman Shaw for an improved apparatus and process for recovering gold and silver from waste solutions, I have the honor of submitting the following views. My recent illness of nearly two months' duration prevented me from responding earlier to your committee.

It is quite a difficult matter for a lawyer to write a decided opinion upon the validity of any patent; especially so when the subject-matter of the invention relates to both mechanics and chemical science, which, in themselves, are vast and intricate, and invite the research and criticism of the accomplished adept in the knowledge of their origin, character, and development, rather than the superficial examination which a lawyer necessarily makes regarding the same.

Bear in mind that the lawyer, as well as your honorable committee, can only give his opinion upon the subject under consideration, leaving the adjudication or *final voice* respecting the validity of the patent to the judge upon the bench or the jury in the box.

What might appear to the counsel and to the committee as rational premises upon which to build and decide the argument, would be to the judge in court or the jury there an unsound position; or, in other words, they might look at the points and facts of the case in an entirely different light, and so disappoint the profoundest lawyer or the most intelligent committee.

In this changeable and intensely mixed age legal opinions are not of very great value and importance, and particularly upon subjects which partake of a scientific character.

The basis of examining the subject-matter of a patent like the present one, is generally founded upon some particular theory, which the lawyer often maintains with obstinate indifference to the real facts, and hence his opinion is not a fair one, or it is not an intelligent discussion of the entire case. A mere theorist cannot accomplish much in any undertaking; much less can the lawyer who shuts out from his mind the facts which should largely govern his action in obtaining a result.

Mr. Howson, in his commendable work entitled *American Patent System*, has well said: "Few theorists think alike, and their efforts to elucidate a simple subject often result in confusing it; precisely as scientific experts in poisoning cases, and in not a few patent cases, by their opposite views, frequently succeed in confusing judges and juries, and in obscuring the truth."

It is my aim in the discharge of the present duty to make my views as far practical as the subject-matter under consideration will permit. What I have to say regarding the theoretical or chemical portion of the case, is derived from an experience, an intimate connection for over three years, with the history of the invention and patentee, and from a recent and careful review of the large mass of testimony used in the various protracted trials, where the invention was elaborately discussed by witnesses, experts, and counsel. In the two late defeats which Mr. Shaw suffered in the courts regarding his old reissues, he failed to sustain his patent because of the vagueness and insufficiency of his specifications and the imperfectness and broadness of his claims.

The question as to Shaw being the first and original inventor was fully argued by counsel, but never considered and passed upon by the court. The opinions of Judges Blatchford and Benedict were to the effect that the patent upon its face did not then show an invention.

That whether the patentee claimed an apparatus described, meaning "any ordinary vessel," or construed to cover the method of producing the effect described, which meant the use of *any* known precipitant to throw down silver and gold in solution in any of the known solutions; in either contemplation of the case there was no patentable invention.

In the last reissue before me I find that Mr. Shaw, in order to be as clear and practicable as the law permits, and to avoid the legal objections which his last reissue contained, divides his invention into two parts, and concurrently obtains two patents.

*First*, under Division "A," he describes and claims an apparatus for recovering gold and silver from waste solutions; and, *second*, under Division "B," he describes and claims a process for the same purpose.

It is a principle of law applicable to the determining of the validity of patents, that practical views rather than subtle distinctions, must

govern in construing the specifications and claims of the patentee. This rule, however, need not be applied strictly to the last reissue of Mr. Shaw, as his last two divisions "A" and "B" clearly, fully, and sufficiently exact, set forth his alleged invention and claims so that any one at all acquainted with the subject can see at a glance what the nature of the alleged invention is.

His claim to the original inventorship of the apparatus described in Division "A" has never been judicially passed upon by the courts, and there is no positive evidence before me that he is not the inventor of the apparatus described. Aside from this, however, the patent is *prima facie* evidence on this point that Shaw was the first and original inventor thereof, as well as to the novelty and utility of said apparatus, and must control the question, unless countervailed by the party's evidence who attacks it. The patent is *prima facie* evidence that the grant of right in it is valid; that the invention described by Shaw is new and useful in the saving of photographers' waste; that it required invention, and that it is the invention of Shaw; and such *prima facie* evidence must have full effect, unless rebutted by sufficient countervailing testimony.

Whether the apparatus is deficient in part, as to utility, is not a bar to his claim to the patent; it would only affect his claim fatally, providing the apparatus was proven wholly worthless for the purposes designed.

The patent itself raises a presumption of novelty and utility—the degree of utility of the apparatus is not a matter of consideration. If it was useful at the time the patent was granted, the patent is valid; and if it has become useless since by the discovery of some other method which dispenses with it, this gives no person the right to use the apparatus.

The fact that the apparatus described in Shaw's original patent had been in public use in the interval between the issue of the original and the reissue, does not prevent him from resuming his claim to the same in his last reissue.

Again, there may be more than one reissue of the same patent. The surrender and reissue are allowed to follow each other as often as the inventor is content to be more *specific* or *modest* in his claim, *i. e.*, if Shaw was defeated to-morrow by reason of faulty specifications and claims, as in his last patent, and not upon the merits of his invention, he could instantly avail himself of still another reissue. The vital question as to whether the apparatus described and claimed by him had been known before, and used for the same purposes named, is a matter of future proof, and hence cannot affect the present case. I know of no evidence which proves the fact, except that pointing to the publication of a description of a similar apparatus in the London *Photographic Journal* some years previous to Shaw's application for a patent in this country. I am of opinion that the vessel or apparatus described in the journal referred to, and which is now in my possession, do not anticipate Shaw's invention described in Division "A," and even if they did, the law holds that such publication must be before the *invention* of the patentee, and also that the idea or thing discovered must have been put into some useful or practical form, and carried into operation.

The invention of Shaw was made some years previous to the alleged publication in the English journals. See Shaw's evidence, and witness Judd in the Bogardus and Pendleton suits.

I cannot see wherein the doctrine of double use applies to this division of his patent, and, therefore, in conclusion, I am of the opinion that Shaw's claim to the apparatus is a good and valid one.

In support of my legal views upon this branch of the case, I respectfully refer you to the following decisions and patent law:

Section 6, Act of Congress, 1836; Allen *v.* Hunter, 6 McLean, 313, 314; Brooks *v.* Bicknell, 3 Id. 261; Poppenhusen *v* N. Y. G. P. Comb Co, 4 Blatchford; Pitt *v.* Hall, 2 Blatchford, 231 (Nelson, J.); Waterbury Brass Co. *v.* N. Y & B. Brass Co., MS. Opinion, Ingersoll, J., N. Y. So. Dist., 1858; Potter *v.* Howard, MS. Opinion Ct., 1858; Vance *v.* Campbell, Ohio Repts., 1859; French *v.* Rogers. MS. Opinion (Kane, J.), Pa. Circuit, 1851; Howson "American Patent System," pp. 47, 48, 58, 59; Section 3, Act of Congress, 1870; Moody *v.* Fiske, 2 Mason, 112; Wyeth *v.* Stone, 1 Story, 285; Washburn *v.* Gould, 3 Id. 142 (Mass.); Hovey *v.* Henry, 3 West. Law Journ., 154 (Mass.).

In approaching the discussion of Shaw's invention, specified and claimed by him in Division "B," to wit, a "process for recovering silver and gold from spent or mixed photographic solutions, and washing, by the use of sulphuret of potassium," I am conscious of the responsibility which rests upon me in the discharge of my duty, and the grave importance with which its consequences may be fraught.

Section 24 of the Patent Act provides that any person who has invented or discovered any new or useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof, not *known* or *used* by others in this country, and not *patented* or *described* in any printed publication in *this* or any *foreign* country

before his *invention* or discovery thereof, and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the duty required by law, and other due proceedings had, obtain a patent therefor. This, in brief, is the law of conditions requisite to be complied with for "any person" in this country to obtain a patent.

First, in Shaw's described invention in Division "B," embraced among the patentable subject-matters mentioned in section 24, or in other words, can the process of recovering the silver and gold from spent or mixed photographic solutions and washings by the use of sulphuret of potassium, in connection with the apparatus described in Division "A," be made the subject of a patent?

Photography is an art and science, and by patient and industrious toil on the part of those who have grown old in its discipleship, it has become one of the most beautiful, useful, and attractive callings in the realm of art. The practice of the photographic art not only requires the most refined and delicate taste in the execution of its artistic features, but it embraces a practical use of chemicals and mechanical instruments, which represent two of the largest and most varied departments of knowledge in the world.

In the introduction and development of the collodion process, the solutions and washings found in it were entirely different in character, and composed of different elements from the solutions found in any other branch of art and science. Photography, as I apprehend the fact, has given to the world a class of solutions which from the very absence of the art were before unknown. In all the various solutions there were more or less gold and silver contained, and the metals being of so precious a character, we can readily see how the busy mind of the inventor would set about the accomplishment of the purpose of saving the wasted substance.

Both in mechanical and chemical science there have been many and frequent discoveries and improvements within the last half century. The application of steam as a propelling power, the origin and development of the electric telegraph, the long and eventful experiments, and at length splendid triumph in blessing the world with the sewing machine; the invention of the daguerreotype, and the introduction and world-wide development of the collodion process, together with numberless other improvements in machinery and chemical science, have all rested their claims to a *patent birthright and legal protection*, on the 24th section of our Patent Act. Mr. Shaw's claims to the process described in Division "B," of his patent reissue, is a proper subject for a patent within the scope and meaning of the above act, and the invention is intended financially as a benefit to the photographer who employs it. His specifications are very full and clear. He states that previous to his invention it was customary in the practice of the photographic art to allow the washings or waste and spent solutions to run off, and the gold and silver contained in them were thereby lost, because there was no known process or method by which the gold and silver, contained in very small quantities in such solutions, could be recovered *economically* enough to render the use of such process remunerative or advantageous.

This statement of Shaw must be taken and accepted as substantially correct and true, until overthrown by competent proof to the contrary. The evidence in the recent trials failed to establish that Shaw's *method* of saving waste was known and practiced in this country before his invention in 1852.

Among the witnesses for the defence whose testimony stood unimpeached, the fact was disclosed that the precious metals *had not been precipitated* by them earlier than 1856 or 1857, and that they made but little progress in the recovery of them from the mixed washings until 1859 or 1860, which was about the time that Shaw began to introduce his process.

These facts in my opinion corroborate the statement made by Shaw, as to the state or condition of the art, relative to saving waste, &c., at the time he claims to have made his invention.

After a further statement as to the condition of the art, previous to his alleged discovery, he says that he found the nature of these new solutions named by him to be entirely different from solutions before known in the arts generally. I do not doubt this statement of Shaw respecting the peculiar elements that compose the photographic solutions, as contradistinguished from solutions in which are contained gold and silver found in the assayist's and jeweller's business.

Shaw further claims that the course of treatment adopted to precipitate from solutions which previously existed, such as the nitrate solution of the assayer and refiner, and the electroplating solution, could not be successfully applied to the new solutions which the collodion process developed, with any advantageous results. And it is at this point of his specification in Division "B" that we are introduced to his *real invention*. To use his own language, he says: "I discovered that of all things known in chemistry as precipitants of the silver and gold held in solution,

that *sulphuret of potassium* was the only material which could be successfully employed to precipitate the gold and silver from the mixed washings or waste solutions; and as the problem to be solved required the treatment of all the solutions together, or the treatment of the mixed washings, the discovery of the capacity of the *sulphuret of potassium* to effect the result enabled me to accomplish the new object arrived at, namely, the recovery in a practical successful manner of all the silver from all the waste washings and spent solutions of the photographic establishment. It will be understood then that based upon this discovery rests my invention, which consists in the use in any suitable apparatus in which the spent solutions or mixed washings of photographers are *accumulated* of the *sulphuret of potassium* to precipitate from such solutions all their *contained* gold and silver."

Shaw then minutely describes the method which he proposes to adopt and claim as his invention, and which is in part included in Division "A" of his patent, to wit: "In carrying out this precipitation of the metals the precipitant should be so applied that the washings will come into contact all the time with it to keep up the chemical action, and so that its action cannot be impeded or impaired by any accumulation about it of the sediment or deposit; and to gain these objects, which are essential, I propose to provide a suitable vessel (adapted either to catch the washings from the sinks or basins, or to answer as a substitute for such receptacles for washings) in which is provided a bag or cage for holding the precipitant, arranged near where the washings enter the vessel, and some distance above the locality at which the deposit will form. I propose to have this vessel divided into compartments, and otherwise so made that the washings can come in continual fresh contact with the precipitant, and so that the particles precipitated will be prevented from flowing off or escaping with the water and its contained ingredients."

This plain description of his method must enable any one skilled in the photographic art to recover gold and silver from their various solutions. In concluding he says that "the gist of my invention rests in the idea of extracting the silver, by bringing the mixed washings and spent solutions into contact, substantially as described, with the *sulphuret of potassium*."

I have incorporated his statements contained in Division "B," for the purpose of leading your minds to the fact, that Shaw makes a distinct claim for the use of *sulphuret of potassium* as a precipitant in combination with the solutions peculiar to photography. He does not claim to have discovered that *sulphuret of potassium, per se*, is a precipitant. He admits that it was old in this respect, but the essence of his invention, in my opinion, unless overthrown by prior knowledge and use of the subject-matter claimed, consists in the discovery that *sulphuret of potassium* was the *only* substance which could *effectually* and most *advantageously* precipitate the gold and silver from the new solutions found in the photographic art, and his practical manner or mode of applying the same.

This must be taken as the conclusive meaning of the patentee, and also the legal interpretation of the Patent Office respecting his invention; for Shaw alleges that he found by experiment that the best known precipitants in connection with the previously known solutions in which were contained gold and silver, *would not act* upon the new solutions in the collodion process; further, that no instructions for precipitating the silver from these new solutions could be found in the chemical or photographic works of that date, and hence it was by frequent and long experiments, and by a novel and simple process he accomplished that which undoubtedly is the legal basis of his claim in Divisions "A" and "B" of the present reissue.

Shaw thus laying the foundation to the above discovery, and claiming a practical method of putting the same into use, which produced a new and beneficial result in the saving of gold and silver from the various photographic solutions to which it is applied, entitles him to such a *substantial* protection that no one can take from him the benefits of his discovery, by simply embodying it or putting it into practice in connection with a differently constructed machine from that claimed by him, except so far as he might himself waive the right.

One of the strongest objective points that can be made against the validity of Division "B," in the present patent, is that of "double use." This important doctrine of patent law rests upon a basis of facts which I am not bound now to assume, much less accept, as true, respecting the present patent. However, in order to give the largest view of this objection which a court might sustain against the present patent, let us see what would be necessary in order to accomplish that end.

If it can be shown that *sulphuret of potassium* had been previously in practical use as a precipitant for *other kinds of solutions* than those known in the arts at the date of Shaw's invention, and also *proven* that the nature and action of sulphuret of potassium as a precipitant was

*fully known*, and that Shaw made no such new discovery respecting that substance in connection with photographic solutions as is alleged in his patent, then the plea of "double use" could be successfully applied and legally maintained. At present there is no evidence to sustain these points before me, and, therefore, I cannot see wherein the point of "double use," in any way affects or invalidates Division "B," of the present reissue.

Chief Justice Taney, in the celebrated case of O'Reilly *v.* Morse, reported in 15 How., 119, says: "Whoever discovers that a certain useful result will be produced in any art, machine, manufacture, or composition of matter by the use of *certain means*, is entitled to a patent for it, provided he *specifies the means* used so fully and exactly that a skilful person can by using the means specified without addition or subtraction produce the result described."

Shaw's invention is in letter and spirit within the scope of this well-known legal authority.

Justice Nelson, in a leading case upon this subject, Foote *v.* Silsby, reported in 2 Blatch., 264, *held*, "Where a party has discovered a new application of some property in nature, or composition of matter, never before known or in use, by which he has produced a new and useful result, the discovery is the subject of a patent, independently of any peculiar or new arrangement of machinery, for the purpose of applying such new property."

In a similar case, Judge Blatchford, of the United States Circuit Court for the Southern District of New York, has said: "The means described can be claimed. In the means or the producing of the means, or the use of the means to effect such result, the invention consists."

A distinguished jurist of England, Baron Anderson, in still a similar case, has said that: "You cannot take out a patent for a principle, but you *may* take out a patent for a principle coupled with the mode of carrying the principle into effect, provided you have not only discovered the principle but invented some mode of carrying it into effect, but you must start with having invented *some mode* of carrying the principle into effect; if you have done that, then you are entitled to protect yourself from all other modes of carrying the same principle into effect."

These four authorities affirm well-established rules of patent law, applicable to the discovery of a principle in nature or composition of matter in connection with a practical mode of applying or using the same. Division "B," of Shaw's patent, bears evidence upon its face of the discovery of a new principle in the composition of matter, to wit, sulphuret of potassium when applied for the purpose mentioned in the *mode* or by the *means* described and claimed by him.

It has been held that a patent may be granted for the use of a *known thing* in a *known manner*, to produce effects already known, *but* producing those effects so as to be more *economically* or beneficially enjoyed by the public. This principle of law would give to Mr. Shaw a very wide latitude, even though his discovery and means of using the same to produce the effect were all proven to have been known before; still, if the effects or result accomplished by the employment of sulphuret of potassium in the mode described, be a more *economical* or *beneficial* one than any in prior use, the court might even then sustain his patent.

I have gone further than the patent upon its face warrants. The presumption of law is in favor of its validity, and that there has been an *invention*, and its *issue and grant* is *prima facie* evidence in any court that the described invention is original, new, and useful.

The eminent Justice Story in the case Philadelphia and Trenton Railroad *v.* Stimpson, reported in 14 Peters (Supreme Court), 458, has held on this point that "it is a presumption of law that all public officers perform their proper official duties until the contrary is proved. Where an act is done, as a *patent to be granted* or *reissued* upon evidence, and proofs to be laid before a public officer upon which he is to decide, the fact that he has done the act or granted the patent, is *prima facie* evidence that the *proofs* have been regularly made, and were *satisfactory*."

Justice Leavitt in a similar case, Judson *v.* Cope, Ohio Reports, 1860, has also held upon the same point: "That the law requiring that an inventor should describe his invention with accuracy and fulness, and it being the *duty* of the Commissioner of Patents to see this is done, the presumption is that the patent has been issued *upon sufficient foundation*, and the court must be *well satisfied* there is a material insufficiency or defect in the same before it will pronounce any patent a nullity, and void."

In conclusion, from my knowledge of the facts governing the invention, and for the reasons already stated, I am of the opinion that the present reissue (under Division "B") of Shaw's patent will be sustained by the courts.

Respectfully submitted,

E. Y. Bell,
Counsel to the N. P. A.

For further information, please refer to the report of the proceedings.

E. L. EATON, OMAHA.

THE

# Philadelphia Photographer.

Vol. X. OCTOBER, 1873. No. 118.



## THE BUFFALO CONVENTION.

RETROSPECTIVE.

THE report of the proceedings of the National Photographic Association has been in the hands of our readers about six weeks, now, and we trust that it has not only been diligently read, but also found very useful and profitable.

Now that the excitement of preparation is over, the labors of the eventful week ended, and our report in your hands at this writing, personally we seat us to take a quiet review of the past, and to think over the lessons thereof. The question arises at once, "Is the Association doing any good? Is it furthering the interests of photography? Is there any better way by which we may lift photography up, and give it a place among the highest industries of the world, and, at the same time, make it easier and better for those who practice it for a livelihood?" As we turn over the leaves of the report, a quiet sense of satisfaction comes over us, and our queries are answered to our pleasure, Yes, the National Photographic Association *is* doing good. *It is* advancing the interests of its votaries. *It is* making it easier and better for them. It is advancing our art to a higher and higher position each year, and although some of the public press ridicule us, and the idea of our claiming to be artists, we shall still push forward, knowing well that those who calumniate us themselves know very little about art. Very few people in this country understand the first principles of art, and, as a class, newspaper men know less about it than any other. But the day is coming when art and art culture shall hold the position in this country that they do in Germany and Italy, and standing among their first and fastest friends will be the photographers of the United States.

Does it not look like it, when we remember the enthusiasm with which Mr. Chute's excellent resolution was carried? Does it not look like it, when we remember how often Messrs. Sellstedt and Frothingham, and the unknown sculptor, were interrupted by applause? How the dialogue between Messrs. Baker and Fabronius was listened to? Does the desire for art culture seem to be languishing among us, when we see the tendency of the lectures of Messrs. Pearsall, and Baker, and Wilson? Again: Do we not seem to be making rapid progress in this direction, when we have such addresses as those made by Messrs. Bigelow and Jewell, and such a discussion as was had, on Tuesday afternoon, on skylights, and how to use them? Yea, we are making *rapid* progress. But our united desire is not to win the title of "*artist.*" We care *nothing* for that. We shall merit it. But

we consider the title of *first-class* photographer a much more enviable title.

And now, dropping this subject, let us look over the number of more technical discussions and addresses made upon nearly every subject embraced in the actual practice of photography. No book that was ever issued gave us so much condensed, practical information, as does the portion of our report alluded to. Here we have working men giving their best methods, the instruction coming from their own lips, giving it a charm and a value not possible to overestimate. We have not the space to mention names. We ask you to read and to study *all*. You cannot do it without advantage.

There can be no doubt about it. An Association that can meet and hold such an exhibition as was held at Buffalo; that can bring forth and disseminate so much information as has been alluded to, *must be doing an immense amount of good*, both for the class composing it and for the public generally.

In the line of *business* progress, also, our Association is doing much, for it is one of its special characteristics that it unites the last with matters of science, and all are considered with the greatest interest.

We are progressing, therefore:

1st. Towards a Photographic Institute, a thing much wanted, which will come slowly perhaps, but which is *sure* to come.

2d. Towards a Mutual Life Insurance League, an admirable idea, which will be doubtless formed during the coming year.

3d. Towards a system of Apprenticeship, than which there is nothing more essential, to correct the evils which hold photography down into the dust, by means of the incompetents who are allowed to enter the business. Oh, *stop* this growing evil!

4th. Towards the time when the whole fraternity will be united in the bonds of this Association. It is coming. The resolution to give the Vice-Presidents something to do is a good one, and will be acted upon.

5th. Towards the formation of local associations all over the country. Read Mr. Pearsall's excellent paper on this subject, and act upon it. This you can do yourselves.

6th. Towards a proper recognition by the United States Government of our necessities and rights, at least in the matter of postal law, pertaining to photographers, a direction in which reform is much needed.

7th. Towards the establishment of our Association upon a solid business basis, by removing its debt, and by supporting it so it can never run in debt again. There are no fat offices to use up your money. The main expense is the annual exhibitions and conventions. True, many of you are not able to attend them, but you share in the general good they do, and do they not really make you sufficient return to repay you for all they cost you? If yes, then aid in the removal of the debt, and the proper support of the Association in future. *Now* is the time. Do not let it languish.

8th. Towards the grand Centennial Exhibition of 1876, when you will all come to Philadelphia and see the greatest, grandest display of photography ever held in the world. Your committee have already acted in the matter, and have already had official invitation to act with the Centennial Commission. It shall be done to the credit of all.

Now, finally, photographers of the United States, *take hold*. Support the National Photographic Association loyally and earnestly, and it will put knowledge into you, and money into your coffers. *Join it for life.*

## A PLEA FOR THE OPERATOR.

"My business in this state made me a looker-on here in Vienna," and my attention was called to a paper on Chemical Manipulation and Lighting, in the May number (1873) of your journal, by Mr. Alva Pearsall of Brooklyn, N. Y. I had intended commenting upon the same, in your next issue, concurring in the main with the ideas of the writer; but in the following number, Mr. Elbert Anderson appears as defendant, and with a considerable exhibition of ingeniousness (ingenuity?) reverses his position by bringing in a countercharge. The defence, however, is not happily conducted, for, though what he intends is apparent, still he says one thing

and evidently means another. Premising then, that your magazine is open to *all*, and asking no favor but a fair field, I appear as counsel for the operator, and by *operator*, I mean the darkroom-man, as distinct from the artist or poser. My ear is the recipient of numerous protests from the negative-maker on account of a due want of appreciation of the artist (owing naturally to the the latter's utter ignorance of the countless difficulties which beset the former's path, and for which he is not *directly* accountable, yet held to a strict responsibility). I have thus far refrained from rushing into print, earnestly hoping my betters would take up the gauntlet of their defence, the more especially as this late bout between Messrs. Pearsall and Anderson offered such a fair opening wedge. In default, however, of either party putting in an appearance, I wish to offer twelve counts (to which I take exceptions), especially for the cogitation of the artist, whose knowledge of the dark-room requirements is necessarily limited, believing that if they are carefully read, marked, learned, and inwardly digested, it will lead to more consideration, and a pleasanter understanding for the negative-maker. It would seem impossible for any rational creature to suppose, that a gentleman like Mr. Elbert Anderson, could have written so simply, yet so clearly, and with such a perfect understanding of the matter in hand (the "troubles" of the darkroom) without a most consummate knowledge of the subject. To suppose all this has been written by guesswork is untenable. How then did he come by such knowledge? Conclusively by experience. Yea, verily, by bitter experience and sore trials after repeated failure—for I doubt the gentleman's infallibility: to admit otherwise, were to deny that he ever comprehended a word of what he has written. What his relations with Mr. Kurtz are, is not my province to discuss; suffice it to say, that I think, with Mr. Pearsall, that Mr. Anderson has rather cavalierly refrained noticing the protests of that class of men, with whom he (of all others) is so closely identified.

Well, to the matter. Granting then, that the negative-maker has two or three baths, and the essential chemicals in good order, and thus far, all has gone on satisfactorily.

I can think of no better metaphor for the negative bath than a beautiful soap-bubble; the more you blow gently into this prismatic sphere, and handle it carefully, the more gorgeous become its effects, until "ere a man hath power to say, Behold! the jaws of darkness do devour it up, so quick bright things come to confusion."

A plate is in this very bath at the time it fails. What's the result? Streaks, pinholes, fog, or one of the thousand natural shocks that negative baths are heir to.

PROTEST I.

*Artist.* "Why do you not use another bath?"

*Operator.* "What! before I know that anything is the matter with this one? The one giving heretofore such fine results?"

*A.* "Had you no reason to think that this might happen at any moment?"

*O.* "Aye truly, no one better, for the 'chemical effects' are at the best, like the bubble just before dissolution. Now let us try a second bath, although producing good work, still not equal to the first bath."

PROTEST II.

*A.* "Why does not this bath work as well as the other?"

*O.* "From the simple fact that it has not been in use so long, for it is only by continual use that it gradually approaches perfection. Like your soap-bubble again, there must be a beginning."

*A.* "Shall the sitter wait awhile, until you 'fix' your bath?" [Oh, monstrous! Yes, honestly, the question has been most innocently asked.]

*O.* "Since it may require a day, or perhaps two, to 'fix' it, I would recommend the sitter *not* to wait." [A bath accumulating ether and alcohol will, in time, cause the developer to "crawl," if there be not sufficient alcohol in the latter to overcome this; result, a mottled plate.]

PROTEST III.

*A.* "What is this mottled appearance on this plate?"

*O.* "Not enough alcohol in the developer."

*A.* "Why do you not put in more then?"

*O.* "Because no more alcohol should be added to the developer than just enough to cover the plate smoothly; therefore it would have been inadvisable to interfere with the *harmony* of the chemicals, by adding any alcohol before this. There was enough at first, but the great number of plates dipped has increased the alcohol to such an extent *now*, that the developer refuses to flow smoothly."

PROTEST IV.

*A.* "What's this spot?"

*O.* "Dust, collodion skin, plate-holder, &c., &c."

*A.* "Could you not see this before you brought me the plate?"

*O.* "Surely."

*A.* "Then why not prepare another plate?"

*O.* "Because you told me to hurry, the sitter was impatient, &c. Unreasonable haste is the highroad to error."

[A plate from a fair bath has stood 8 to 10 minutes before use—the sitter not being ready—finally exposed and developed. All satisfactory. Another plate is brought out, stands only 4 or 5 minutes; result, streaks, drying spots, &c., &c.]

PROTEST V.

*A.* "What's this? what's the matter with this plate?"

*O.* "Stood too long."

*A.* "Oh, no, no, no, that won't do; the one before that, waited twice as long, and that was satisfactory; try again."

*O.* "True, but *that* plate was from another bath, a *newer* one, and could thus afford to stand longer."

*A.* "Why not boil your bath?"

*O.* "I will." [Bath boiled that night, filtered next day, plate dipped, plate fogs a little.]

PROTEST VI.

*A.* "What makes this plate so hard and foggy?"

*O.* "Because the bath, being boiled over night, becomes strengthened, and is not, on that account, fully iodized; also lacks acid, perhaps."

*A.* "Why not have tried it before? why try it now on a sitter?"

*O.* "You forget; it has just been filtered, I have had no opportunity to try it before."

*A.* "Why not wait until after the day's work is over, and then try it?"

*O.* "Because I lose *a whole day*, to 'doctor' it, when perhaps the addition of a few drops of acid will completely remove the difficulty. You can hardly expect me to add acid *before* trying a plate, since it may not require it."

*A.* "If the plate cannot stand so long, why not leave it in the bath until I call for it? Will it hurt the bath?"

*O.* "Oh, no. I'll do so." [Result, *Pinholes.*]

PROTEST VII.

*A.* "What are these pinholes?"

*O.* "A bath fully saturated with iodide of silver, works finally (as you see) *provided always*, you *remove* and *use* the plate at once it is ready; but let it lie soaking in such a bath the iodide will soon crystallize on its surface, thus *pinholes.*"

PROTEST VIII.

*A.* "What's the matter here? this is hard and thin, like an ambrotype."

*O.* "Not sufficiently developed."

*A.* "Well, why not, pray?"

*O.* "Because it would have caused me to overdevelop the other exposure on the same plate, which you see is now quite perfect. Too long standing between the exposures."

*A.* "Can you not strengthen this a little?"

*O.* "Certainly, and ruin the good one by staining it."

PROTEST IX.

*A.* "What makes this so thin and flat?"

*O.* "Too much diffused light, badly lit, &c., &c."

*A.* "*I* think the chemicals are out of order."

*O.* "How was the last negative?"

*A.* "Fine; all that could be desired."

*O.* "Made with precisely the same chemicals."

*A.* "Improper manipulation perhaps."

*O.* "Then *all* the manipulation is but guesswork; I have done nothing different from ordinary."

PROTEST X.

*A.* "What are all these wavy lines?"

*O.* "Plate not coated enough."

*A.* "Bah! Why not, sir?"

*O.* "You will not wait for it; you have asked me impatiently three or four times for the plate. It takes, *at the very least*, five minutes to coat a plate properly."

PROTEST XI.

*A.* "Now what's the matter?"

*O.* "I am using another bottle of collodion."

*A.* "Why do you change your collodion? I'm sick of these *experiments.*"

*O.* "I changed the collodion, simply because it's all gone; this is a fresh bottle."

*A.* "Did you make this like the last?"

*O.* "I did, precisely."

*A.* "Why should it be different then?"

*O.* "You forget (!) the alcohol, ether, cotton, iodides, may, one or all, be different; it's the risk we take."

PROTEST XII.

*A.* "What makes this cloudy appearance?"

*O.* "The weather is excessively hot, all the doors and windows are open, and the slightest draft seriously affects the plate."

*A.* "Suppose you close your dark-room door, that is a simple thing to do."

*O.* "Very. I shall simply die of suffocation, that's all."

PROTEST ——

—Enough, show me no more. "Sufficient unto the day is the evil thereof."

*En passant*, let us have no more of this brain (braying) business; some of the craft, for private reasons, take it sorely to heart. "'Tis true, 'tis pity; and pity 'tis, 'tis true."

CRITIC.

## ARTICLE I.

As you are to publish the proceedings of the Convention of the National Photographic Association at Buffalo for the benefit and instruction of all its members, I would like to call your attention to a very *trifling* circumstance which I noticed there, and which I feared that you might have overlooked and would omit from the report, but which I think ought not to be omitted, for the reason that if the right use is made of it, it may prove of great value hereafter to our Association; so I trust that you will publish this communication, although I am very loath to add anything whatever to your already overburdened columns, and would not ask it did I not deem it of great value to our Association as a lesson.

It was a slight circumstance in itself, but struck me very forcibly, as I think it will yourself and others when properly brought to your attention.

Some member was upon the floor discussing as to the best method of overcoming some difficulty which he deemed an obstacle in the way of progress, or of accomplishing some very desirable improvement—I forget now which it was; but the substance of the remark and the circumstances which attracted my attention were these:

That he hoped some one of our ingenious inventors would discover some mode of overcoming the difficulty or of accomplishing the much-to-be-desired result, whichever it was, when either himself or some one interrupting him remarked, "I hope he won't patent it," when almost the entire audience as one man cheered that remark. But as for me I could not see the point worthy of a cheer. The remark and the reception which it received struck me as one of the most ridiculous and out of place of anything which I ever witnessed in my life, and for this reason: I find in the first section of the first article of our Constitution enumerated as among the objects for which our Association was formed, the following:

"Stimulating discovery and invention, and encouraging the home production and the manufacture of the many articles required for photographic use."

Now, Mr. Editor, it strikes me that the open expression of such views in our public conventions, and especially the almost universal approval with which they were received, must appear to the world—as it certainly did to me—as being a very singular way to "stimulate discovery and invention" and encourage progress in our art.

If we had formed this Association for the purpose of discouraging progress, invention, and discovery, it would then seem to me to have been perfectly in place and very appropriate. The questions which arose in my mind were these:

What do these ingenious inventors puzzle their heads and spend their time, talent, and means for?

What do photographers spend their time and means in coming here and in making pictures for?

Let us suppose that some one not a photographer, viewing these conventions of ours, should make before the public this remark: I think this Photographic Association is a splendid institution, and hope they will continue to meet together year after year and improve themselves wonderfully in making pictures, and give us more wonderful and splendid ones than ever before; but they have got one very little, small, mean, selfish, stingy practice, which I trust that they will abandon and get rid of—that is, charging us, the public, for the pictures which they make. If they will only get rid of that practice, we will rate them gentlemen of the first water.

I trust that you will give this a place, even though your columns are overburdened, as I believe that those who express such sentiments as well as those who approve them are doing more to discourage improvement and progress in our art than all the rest of us can do to encourage it, and ought to be shown to themselves as others see them.

One who believes in the First Section of Article I of our Constitution.

## The Way you can Make $500 to $1000 Extra on your Next Year's Business.

Go to work now and give your patrons to understand that you are making pictures for the next great National Photographic Association Exposition to be held in Chicago, July, 1874, and at the same time go to work in earnest to get up the *best* things you can, of the best subjects you can find. As you collect something fine, hang them in a separate place in your rooms, and call the attention of leading people to them. Tell them the Exhibition will be the grandest thing ever held, and will be worth going thousands of miles to see, and then send them along, and come yourself, and we will have a big show, and people will come a long way to see it. I know from experience that it will pay you well. We must make our annual gatherings of *interest to the people*, and induce them to come and see our show. In this way we can get up a big thing every year, and make the crowd come and see us, and leave our treasury with from ten to twenty thousand dollars in it, instead of being empty, as heretofore. Try it, you who are complaining of dull times.

A. Hesler.

## CORRESPONDENCE.

Mr. Alva Pearsall to Mr. Simpson.

I have not as yet any evidence that "very many of your readers were so profoundly astonished on reading the paper" that Mr. G. Wharton Simpson alludes to in your last issue, and which seems to have astonished him so amazingly. Nor that Mr. Anderson and Mr. Gihon "feel crushed and humiliated beyond measure," as Mr. Simpson sarcastically puts it. But I have evidence that Mr. Anderson took no such exaggerated view of the matter, having since paid me a friendly visit at my gallery; and I am quite certain Mr. Gihon did not either. I made no reference to either party by name, simply taking extracts from their articles, without intending any reflections whatever.

"The exposure of the pernicious nature of their teachings." This is an entirely wrong construction. I said in substance it would be pernicious to photography to make the operator feel that *his* position was of no importance, as he would naturally lose all interest and pride in his work.

As to "art being greater than manipulation and mind superior to matter," I agree with these views most emphatically; and in respect to the latter would refer to the article in question in the May number of your journal.

As to my "bewailing the passing away of the times when formulæ and processes" were the absorbing topic, is all moonshine. See article. I simply endeavored to show we were going from one *extreme* to *the other*.

Having been a practical photographer for a number of years, and worked both in the dark-room and under the light, I know by experience the value of fine chemical manipulation in connection with lighting; and now that my time is wholly taken up in making sittings, I am willing to concede to my operator all the credit due him when he preserves and does not destroy what I have endeavored to do under the light. This, and the desire to make the operator feel the importance of his position, was the whole *gist* of my paper. I did not elaborate upon the art of photography, as the association before which the paper was read was well acquainted with my work and could judge for themselves in this respect.

With the rest of Mr. Simpson's article I entirely agree in the main; but why he should have started off in such a sarcastic strain, and withal so personal, I cannot conceive. And why he should so misunderstand the tenor of the paper, is a mystery to me, unless he simply passed over it in a hurried manner and without proper consideration.

Very respectfully, &c.,

ALVA PEARSALL.

## Medals Awarded at the Vienna Exhibition.

THE jury has finished its labors. The prizes have been awarded, and I annex a list of those receiving them. In regard to the medals which have been distributed, I remark that according to the ruling of the Director-General there are three kinds: one for progress or improvement, one for merit, and one for the display of taste. It was originally intended that the jury should have the right to award two medals to one exhibitor—for instance, one for merit and one for taste, if the objects which he exhibits were faultless in a technical sense, and at the same time showing good taste.

Unfortunately this principle was abandoned, and in the last week the Director-General ordered that only one medal should be given to any one exhibitor, and that the three medals should be considered all of the same grade or value. By this arrangement a reward to the exhibitor as the true value of his exhibition became impossible. A photographer might display much taste, but furnish technically inferior work. How shall we distinguish between him and the photographer whose work is in both respects faultless? The section for photography was of the opinion that in spite of the ruling of the Director-General the medals for taste should be considered the highest which can be awarded to a portrait or landscape photographer, and when besides good taste the work possessed other prominent merits, the jury has expressed the same in words.

The medal for progress or improvement was, according to section 22, article 2, intended for those which in comparison with former efforts displayed marked improvements either by the introduction of new inventions or new material and arrangement. This paragraph could not be carried out strictly. A photographer in Athens, for instance, who could produce neither new inventions nor new arrangements, received the medal for progress because he promoted photography in Greece under peculiar difficulties. The large pictures taken at the Yosemite Valley received also the medal for progress, because, considering the locality and compared with older pictures, they show an improvement. These principles may be open to objection, nor have they been accepted by all the sections of the jury. Some sections have declared directly that they place the medal for merit above the medal for improvement, so you see the jury had no easy task to do justice.

The Director-General is responsible for it, as he has not defined clearly and distinctly the purpose of the medals.

Diplomas of honor have only been issued for prominent new inventions, or for services rendered to science, but not for photography *only*.

America has received the following distinctions:

W. Kurtz, New York, medal for taste, with acknowledgment of improvement.

Of medals for taste with acknowledgment of improvement, only *four* have been distributed. Of these, only *two* to portrait photographers. The one is Mr. Kurtz, New York, the other, Loescher & Petsch, of Berlin.

Watkins, San Francisco, medal for improvement.

Houseworth, San Francisco, medal for improvement.

Muybridge, San Francisco, medal for improvement.

E. & H. T. Anthony & Co., New York, medal for improvement.

Howell, New York, medal for merit.

Scovill Manufacturing Company, New York. medal for merit.

Rocher, Chicago, medal for merit.

Landy, Cincinnati, medal for merit.

Richman, Cincinnati, medal for merit (for microphotographs).

Bierstadt, Niagara Falls, medal for merit.

Schwind & Kruger, New York, diploma of acknowledgment.

L. Van Loo, Cincinnati, diploma of acknowledgment.

Spahn, New York, diploma of acknowledgment (for camera stand).

Vlanievehr, New York, diploma of acknowledgment.

PROFESSOR H. VOGEL,
Member of the Jury.

VIENNA, July 28th, 1873.

## ART STUDIES FOR ALL.

### V.

(Continued from page 244.)

31. THE study of light and shade is one of the first things a portrait photographer should take up. By means of light and shade we obtain roundness, relief, breadth, distance, and other effects as they are in nature, and as they should be in our pictures.

32. To understand the laws that control light and shade, we must refer to that branch of knowledge which treats of the laws and properties of light and of vision, as performed by the eye, or what are generally understood as the laws of optics.

33. Self-luminous bodies discharge light and non-luminous ones do not. For this reason we have so much difficulty in getting the effect we desire when persons dress in varied colors—light and dark—and worse too, have them assorted in spots, so to speak, about their persons. There are self-luminous faces too—witness the greasy, shiny face and the light-skinned and fair-haired—as well as non-luminous ones—witness the sallow, dry, and dark complexions. We should particularly remember this when lighting and shading a head.

34. All bodies, whether self-luminous or the reverse, discharge light of their own color. Thus red will discharge red light, even when illuminated by the sun, and that is why red hair, red complexions, and red drapery take dark.

35. Again, light consists of separate or independent parts, called rays, which move in straight lines. When these rays fall upon any object, part of them are reflected, or part of them are absorbed by the object, if not transmitted through it. When the objects are bright, as a shiny face or silken drapery, a great part of the light is reflected. In other cases (we now speak of photographic portraiture), the light is more or less absorbed, and that is why we have shadows in our pictures.

36. You cannot have a better illustration of the principles of light and shade than a good round head. It is a study for an age, and if you learn to like the study, it will always give you fresh pleasure.

37. Pure white has no business in the photograph of a face, unless it be most delicately managed on the extreme high-lights. We want first the transparent shade, then the middle tints, and finally the extreme shades. This latter will always come directly opposite the focus of illumination.

38. The higher your light, or source of light, the more diffused will be the effect on the model, for the shadows will be shorter. The *quantity* of illumination should be carefully managed. Remember that in a photograph *light* is *white*, and where you direct light recklessly, you whitewash your model recklessly.

39. Touching the relief of figures, objects contrasted with a light background will appear much more detached than those placed against a dark one. Those parts

which are the farthest from the light are the darkest, and will either cut hard upon the background, or appear to become a part of it. A gradated background should be used generally, so that the dark side of your model may fall upon a light ground and *vice versâ*. This arrangement serves to detach the figure, and at the same time contributes to harmony of effect.

40. Reflected lights will be more or less apparent in proportion as they are seen against a darker or brighter background because of the force of contrast. Reflectors should be used judiciously so as to modify the shadows, but not to utterly destroy them, or to make the distant parts too light.

41. The exclusive power of light and shade is to give substance to form, place to figure, and to create space.

42. Shade is not obscurity, but is a gradation of light. The transition from light to shade should be imperceptible. For the gradation of light that produces the middle tints there are two causes: first, the objects recede from the light, and next from the spectator.

43. The lights and shades must be so distributed as to give force and strength to the picture when viewed as a whole. The lights should be collected and managed in such a manner that all will support and relieve another. If they are multiplied, broken, subdivided, no relief will be obtained. But if the relative parts are harmonized, and so arranged as to give shade to light, and light to shade, they form a strong combination and produce a powerful effect.

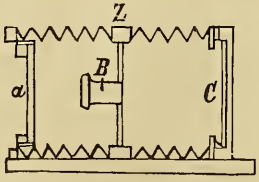
## DR. VOGEL'S PHOTOGRAPHERS' POCKET REFERENCE-BOOK.

In our first notice of this work, we had hardly understood, we find, the convenience and comprehensiveness of it. When we come to use it practically in our daily avocation, then we get a practical idea of its value. There is scarce a term or a formula, or a method, or a plan, that is useful in photographic practice, but what is fairly represented here and explained satisfactorily. Optical terms; faults and excellencies of lenses; chemical symbols, equivalents and formulæ; the uses of chemicals; the quantity used in photographing; the construction of dark-tents, glass-houses; treatment of paper; failures in all processes and how to overcome them, and so on and so on from the beginning to the end of the whole story, are all here remembered in more or less detail. The book must not only be seen, but we have found that it must be *used* to be appreciated. It is the result of much labor and research, and we predict the same welcome for it which greeted Dr. Vogel's *Handbook*.

We make an extract or two from it which will give an idea of its nature. The several articles are alphabetically arranged, thus making the whole very convenient. It will save any photographer an immense amount of time.

**Chloride of Silver.** Formula, AgCl. Consists of 108 parts of silver and 35.5 chlorine. Is insoluble in water, alcohol, and ether, soluble in ammonia, cyanide of potassium, hyposulphite of soda, and the sulphocyanides. The action of light changes it into subchloride of silver, $Ag_2Cl$. The presence of organic matter and light reduces it to metallic silver of various hues, as violet, brown, gray. It is formed by placing substances containing chlorine metal (such as chlorine collodion, positive paper) into the nitrate bath; also by adding common salt to the solution of nitrate of silver, residues, &c., for the purpose of recovering the silver.

**Copying Camera** is used for making positives from negatives by means of the collodion process. The best camera for this purpose is one with very long bellows and an intermediate piece, Z 1.




The negative is placed at *a*, the objective is placed at *B*, and the plate-holder at *C*.

A pasteboard box is placed in front of *a* in order to receive the light nearly vertical and to exclude side-light. With such an arrangement, the objective is protected against all extraneous light, which is an important point with such reproductions, as by it fog and veil will be avoided. In default of such a copying camera, two cameras are placed end to end together, and in the front one the negative is placed at the spot generally occupied by the ground-glass. (See Vogel's *Handbook*, page 196.)

**Focal Length** is the distance from the lens at which the rays of light unite which fall upon a lens parallel to its axis. The focal length is dependent on the curvature and combination of the lenses. At the focal distance we find the images of all the objects which are distant at least fifty times the focal length. Images of objects nearer than fifty times the focal length are farther removed from the lens. If an object is placed at twice the focal length from a lens, the image will be formed at a distance equal to twice the focal length from the centre of the objective.

**Equivalents, Chemical**, are the figures which express the proportions in which different substances combine with one another or decompose each other, as, for instance, 1 equivalent = 108 parts of silver, combined with 1 equivalent = 8 parts of oxygen, to form oxide of silver; and this, combined with 1 equivalent = 54 parts nitric acid, forms nitrate of silver. Or, 98 parts of bromide of ammonium decomposed with 170 parts of silver to form bromide of silver. So also do 98 parts of bromide of ammonium precipitate as much silver salt as 172 parts of bromide of cadmium or 119 parts of bromide of potassium. This should be borne in mind when we wish to exchange in a collodion formula one of these salts with another.

So also correspond 170 parts of silver salt with 58 parts of chloride of sodium, *i. e.*, the last named quantity of common salt is exactly sufficient to precipitate the previously mentioned quantity of silver salt as chloride of silver.

For all reactions important to photography the following table gives the quantities which come into play.

We give here the equivalents of the substances most used in photography (see table, page 43).

## HINTS FROM THE RECORD OF AN ARTIST AND PHOTOGRAPHER.

BY JOHN L. GIHON.

(Continued from page 199.)

My last communication was probably not very interesting to the photographer who might have perused it in search for information in regard to useful technicalities of the art. It spoke only of a few of the incidents attendant upon my transmission to a distant land, where I have lately had occasion to practice many variations upon my former style of work, a future relation of which I trust may eventually prove of some benefit. I spoke of having crossed the equatorial line, but I shall not now impose upon any one's patience with a further account of the voyage which ultimately brought me into the "Oriental Republic." A succession of calms and adverse winds prolonged a necessarily tedious passage. The most pleasing event occurred late in the afternoon of a day during which we were being bowled along by a fair breeze. A sail unceremoniously gave away, and a man was at once sent aloft to repair damages. He had been at his work but a few moments when he called out, "Land ho!" A couple of us sprang into the rigging, and clambering up to the cross-trees were rewarded by the sight of two dark specks that evidently differed in composition from the light hazy clouds that floated above them. Twilight soon afterwards hid them from view, but the next morning anxious eyes scanned the horizon, and finally discovered hills that became hourly more apparent. The night of the same date brought us within sight of the lights of Montevideo, but we stood off and on in the outer roads of the harbor until another sunrise should enable us to make a safe anchorage. Our nearer approach was decidedly discouraging, for a tiny white-winged craft, loaded with men and bearing the flag of the Argentine Confederation, boldly intercepted our course. Two men clinging to its bows warned us away, and jabbering execrable English, assured us

that we had to encounter "mucho sickness," "mucho fiebro." Our captain, assuming that they had a greater regard for the interests of their rival city of Buenos Ayres than for our own welfare, totally disregarded their admonitions. He sailed boldly in amongst the vast fleet of shipping and found a safe berth fronting the Government buildings. A few hours sufficed for the completion of other necessary arrangements, and then I stood upon South American soil and walked in the streets of one of her principal cities—Montevideo! I was agreeably surprised to meet with people whom I had known in other places, and it did not take long to find the "estudio" to which I had been consigned. Here again I was pleasantly disappointed in discovering a photographic establishment equal to any of the leading places in the United States, and in every way far superior to the majority of them. To speak of the features of the gallery would necessitate a description of a Spanish house, and although it is my intention to enter into the detail of such matters, I now deem it best to treat of incidents that followed upon my arrival.

I had scarcely become ensconced in my new quarters ere it became evident that the admonitions of the Buenos Ayrean pilot were not without a foundation. Yellow fever appeared to be an unpleasantly prominent subject of conversation. A death from that disease, soon followed by others, occurred in our immediate neighborhood. One morning, when I went to take my usual cup of coffee at a neighboring café, I found the doors closed and heard of sickness inside. A couple of days afterwards, the occupants of other portions of our building were stricken down, and finally death appeared in our very midst. To be attacked by the malady means to die, and the only motto that should be placed over the portals of the hospital should be that of Danté, "Abandon all hope, ye who enter here." There is a party of gentlemen organized under the title of "Commission de la Salutriadad." It is their province to announce the number of new cases and deaths that daily occur. Their reports dovetail together with the most remarkable precision, for if we read of twenty patients to-day we may with certainty predict that to-morrow there will be twenty deaths. I have never before known of an epidemic that was so universally unsparing with its victims. Flight from the infected regions is the only safeguard, and so generally is this known to be the case, that in one week forty thousand of the inhabitants closed their business places and residences and took refuge in neighboring country-seats and villages. Three weeks after the date that proclaimed me a resident of the city I found the doors and windows of every store along the most fashionable portion of the leading street closed, and the proprietors of all of them were removed either to the "campo" or cemetery. Such a condition of affairs suggested the propriety of immediate action, and mule-carts responded to our determined measures for self-preservation. We fortunately secured a "Quinta" within a few miles of the city, and also found workmen who considered themselves sufficiently hardened to undertake several important alterations that we had contemplated at the gallery. Now that "portraiture" was for a season suspended, it became a question for serious consideration as to what should be done with our time. A resort to *viewing* was the ready resource that made itself apparent.

There are very few photographers who feel themselves capable of working equally as well outside as inside of their glass-rooms. The reason is obvious, for the conditions required for successful results are entirely different. The thin, delicate negatives that every advanced operator prides himself upon producing in atelier work are most unsuitable for landscape purposes, and he who takes the field, provided with the materials that he has used for portraiture, will soon find that modifications are necessary. Collodion, bath, and developer, each and all, have to be altered. With collodion I have always maintained that excessive nicety in choice and proportions of sensitizing salts is not of the first importance. The quantity and character of the cotton that is added to the ether and alcohol, and the relative proportions of each of the latter, has always presented itself to me as a matter worthy of more attention. I advance it as a rule that

nicer distinctions in the printing capacities of a negative can be made by judicious selections of gun-cotton than by the same amount of experiment with different iodides and bromides.

For dark-room manipulations I have advocated the use of a film that should not contain more than from four to six grains of pyroxylin to the ounce, whilst now in landscape photography I at least double such weights. In making pictures of outside effects, we generally need plates of a stronger and more vigorous character than we require for individual likenesses. We must place no dependence upon the possibility of building up a negative, and we must remember that it is much easier to subdue a light that is obtrusively harsh upon a print than it is to convert a half-shadow into a well-illuminated spot. Acting upon this general precept, I advise the use of a collodion of heavier body and of a richer bath. The latter I now work with the hydrometer, indicating the silver to be forty-five grains to the ounce of solution. I have before spoken of making most beautiful indoor negatives with a twenty or twenty-five grain bath. With everything at hand in a laboratory, I modify my developer with almost all of the plates that I produce; but in travelling, one has to economize room and reduce the number of bottles to be carried to the minimum. Late constant use leads me to recommend in the strongest terms a formula that was published some years ago by my esteemed friend R. J. Chute. It will certainly do no harm to reprint it:

| | |
|---|---|
| Protosulphate of Iron, . . | 3 ounces. |
| Sulphate of Copper, . . | 1 ounce. |
| Water, . . . . . | 80 ounces. |
| Glacial Acetic Acid, . . | 3 " |
| Alcohol, . . . . . | 3 " |
| Ammonia, . . . . | 100 drops. |

This solution improves with some little age, and can be used with the utmost safety in relation to any fogging propensities. Its action upon a well-timed plate is all that can possibly be desired.

I have envious recollections of the commodious photographic wagons that many of my friends in the States make use of. The possibility of getting such contrivances in this country is altogether out of the question. A dark-tent is, however, a necessity, and I think that ours is constructed upon a very good, although rather primitive, principle. Four uprights or legs support a frame that is placed upon their tops; long iron hooks brace the contrivance. Two thicknesses of cotton cloth, well saturated with bichromate of potash, and an extra covering of black muslin thrown over the entire skeleton, provides us with a good working apartment, for the proportions are great enough to allow a man to enter and work with freedom. The whole affair can be taken down or put up in a few moments, and its further construction is really too simple to describe more fully. Where it has been, and what we have done under it, I shall make the foundation for several future papers.

## RECOLLECTIONS OF BUFFALO.

BY R. J. CHUTE.

To all who were present and witnessed the grand display of elegant work, as well as the evidences of photographic progress, and attended the sessions of the Convention at Buffalo, the recollection of that week of active, earnest work will furnish them food for thought and study during the year, and perhaps shape materially the balance of their photographic life. To be there was to be benefited, and there were many estimates as to the benefit received. We heard it expressed in the meetings, in the exhibition, on the street, and in the cars. All went home stronger, wiser, and more determined than ever before to strive to excel. A friend and fellow-traveller of mine said he intended to remodel his skylight, and he estimated that the information he had gained at Buffalo would save him enough on the job to more than pay his fare there and back; besides, he expected to profit sufficiently by what he had seen and heard to more than pay him for *all* the expense of changing his light.

But the benefit of these annual gatherings cannot be estimated. We can only approximate it as we witness from year to year the progress being made, as the direct result of the Association work. But there is, per-

haps, no point of view from which we may look back upon the Convention that gives more personal satisfaction than the social relations it engenders. It not only brings men and women together from all parts of the country for the promotion of a common object, and the advancement of their personal interests, but it begets a feeling of brotherhood. They feel differently towards each other; they think differently of each other; they have a larger charity for each other, and for the whole fraternity, than they ever would have done but for their meeting, seeing, and knowing each other. We read from month to month the writings of some of our active members, who are willing to tell others what they know; but in our minds the author seems a great way off if we have never seen him, or he seems a sort of myth, which we are obliged to clothe with some sort of a form from our imagination, if we give any heed to his thoughts, or read what he writes. But when, in the National Convention, the man in tangible form rises before us, quite unlike, perhaps, what our imagination had pictured him, there is a feeling of satisfaction that can scarcely be expressed. We feel differently towards the brother from that we have ever felt before; we see a harmony between him and his thoughts, and we go home much better able to read and understand whatever he may write in the future than we have ever been in the past. The same is true of those who exhibit, and whose work we may see and study from time to time. These are *some* of the results of our meeting together, but all the influences for good that come to us are not to be measured or estimated. Anything that has a tendency to draw us together and cement more firmly the bond of union should be seized upon and made to perform its part. If I mistake not, it was voted at Buffalo to have all the Convention pictures that have been taken at the several places of meeting on exhibition at the Convention in Chicago. This was a good move; and now I would suggest another: Let our Permanent Secretary or the Executive Committee request every member of the Association to contribute a picture of him or herself, to be framed, and placed in the next exhibition; the pictures to be of card size, and put up in frames of from fifty to one hundred in each. This to be done by and become the property of the Association.

Among my recollections of Buffalo is an idea given me by Mr. Carbutt, I think, the results of which have been so pleasing to me that I must give it for the benefit of others. It is a method of making a double salt of the iodides of potassium and cadmium.

Take the equivalents of the two, which will be about 166 grains of iodide of potassium and 183 grains of iodide of cadmium. Dissolve the whole in a small quantity of water, and evaporate to dryness, stirring as it dries. It forms a salt somewhat resembling very light iodide of ammonium. It is very soluble in ether and alcohol; and with bromide of ammonium, as I have used it, makes a collodion that for fineness of film, exquisite detail, and good printing qualities, I have never seen excelled.

My formula is—

| | |
|---|---|
| Double Salts of Iodide, . | 6 grains. |
| Bromide of Ammonium, . | 2½ " |
| Collodion, . . . . | 1 ounce. |

The salts to be dissolved in the ether and alcohol, and any precipitation filtered out. Then add the cotton; let stand a day or two to settle, and it is ready for use.

I use Parys' cotton, about six grains to the ounce, in equal parts ether and alcohol; silver bath thirty grains, and freely acid. If further experience proves this little formula as good as it seems thus far, I believe I shall be repaid for my trip to Buffalo, even should my recollection fail to serve me any further.

## ADJUSTABLE HEAD-SCREEN AND "POINT OF SIGHT."

THE following description of a *Head-Screen and "Point of Sight"* has been sent us.* Of the former the standard is 6 feet high, 2 inches wide and ¾ inch thick.

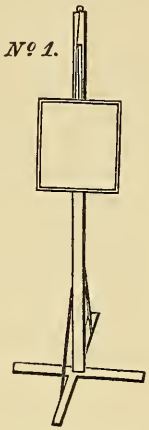
* We regret that we have lost the name of the generous giver of these ideas. Will he please tell us, so we can make due acknowledgment?—ED.

The feet are 2 feet long, 2 in width, ¾ inch thick.

The braces are 1½ inch wide, ⅜ inch thick.

The screen-frame is 22 x 26 inches outside, ⅜ inch thick, and the handle 22 inches long by 1½ inch wide by ⅜ thick.

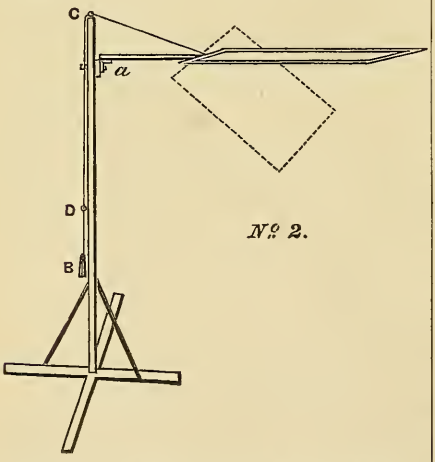
*Operation.*—No. 1 shows the screen as it is when not in use.



*Nº 1.*

*Nº 3.*

No. 2 shows the screen in position. It is hinged at *a* to a little block, and that is




*Nº 2.*

fastened with a shoulder-screw to the standard, which allows it to be turned either way as you wish; and it being balanced by the weight B, with the string which goes through the two screw-eyes, C and D, attached to the handle next to the screen, allows it to move up and down and stop at any point. I could not wish to have anything work any more complete.

*Point of Sight.*—No 3 is made of any light wood, with a standard 6 feet high, 2 inches wide at the bottom, ¾ inch at the top, ⅜ inch thick; feet 20 inches long, ¾ inch square, braces light. At the top and bottom of the standard is a ¼ inch hole, and a string put through both holes and tied, then a cabinet card is fastened upon the string; being endless, it moves up and down easily to any point.

## A Word or Two for the Operator.

We have always tried to make it plain that we feel a deep interest in the welfare of the working photographer, and of the *employé* especially, and for a long time we have offered to advertise without charge for those who want situations. And we want it understood now afresh, that our pages are just as welcome to the class we have mentioned as they are to the proprietors of establishments, large or small. Any communication which has for its purpose the advancement of photography and photographic interest *anywhere*, will therefore find sympathy and welcome from us. We therefore cheerfully admit to our columns the "plea" of "*Critic*" which appears on another page.

We know all about the trials and vexations of photographic *business*, because several years' active experience has taught us. And we know by severe experience also, that the employer is apt to censure the employé very often when he should have the consideration not to do so. Where light, and atmosphere, and temperature, and the nature of the subject all affect the working of chemicals, already most obstreperous in their nature, the utmost allowance should be given the operator if he is known to be, as a general thing, careful and cleanly and thoughtful, and anxious to do his best. If he is not so, it is the employer's fault if things go wrong. He should teach employés better.

The Shah of Persia exhausted the stock of Ross lenses at the manufactory in London to such an extent, as to cause a temporary scarcity in this market.

## PHOTOGRAPHIC MINCEMEAT.

FOURTEENTHLY, *a Small Dish.*—(After our "Buffalo feast" a very little of the above only is palatable.) After reading that immense report in the *Philadelphia Photographer*, one would think that all subjects there discussed had been exhausted, but still there are some points yet open that could be profitably discussed even in print. The management of light was a neglected point, although it was spoken of by one of the lecturers in a passing remark, that he had been called upon to go to a distant town and assist in managing a new light. By his description of the light I saw that it was new to him, but it was not to me, nor to several other veterans then present. Mr. Southworth worked one just like it for years in Boston; and when I say he worked it, I mean much more than will at first appear, for I can assure all of you that he can show you work far superior made under that light than can be found in the samples that are being sold as specimens for "studies." It is not the shape of the light that produces the work, but the shape of the head managing it.

The saying that "two heads are better than one," applies very well in getting all the points of a light, sooner than one can alone, but a man must manage his light to suit his chemical combinations. It is all folly to attempt to describe how to work a given form of light, and then attempt to apply that description to all chemical combinations and forms of light. Suppose your chemical combinations produce harshness in light and shade, then reduce that contrast by softening the shadows upon the model. *Vice versâ*, increase the contrast on the model, tempering the developer to suit in each instance, and timing sufficient in each case to give full detail. Screens and reflectors are useful at times, but cannot be used at all times in the same way. Do not imagine that because you made a fine photograph with an especial arrangement of lights, that by chalking the lines then used you can always do it. Oh, no! Every model requires its own peculiar lighting, and nothing but constant and untiring study will ever produce uniform good work. Do not get discouraged because you cannot produce your best work all the time and every time. It cannot be expected of the very first-class operators to accomplish that. The operator who makes the largest number of first-class work is entitled to more credit than the one that now and then gets up a superior picture. "The tree is known by its fruit;" so also is the photographer. I can tell the work of most of our leading photographers without looking for the name. This goes to show that we all run in a channel peculiar to ourselves. I therefore repeat, Study the effects that *you* can produce under your own light without bothering your head as to the construction of some one else's light. This practice will in the long run pay well.

I. B. WEBSTER.

## FINE ART INSTITUTE, CHICAGO.

THE regular monthly meeting of the Photographic Institute of Chicago was held Monday evening, September 1st, 1873, A. Hesler presiding.

The minutes of the previous meeting were read and approved.

The committee appointed to look to the interests of photographers for the coming Interstate Exposition, reported having met in conjunction with the committee of Chicago Photographic Society, and would respectfully recommend that photographers apply for space to exhibit, individually. On consulting with Mr. Rehnolds, Secretary of the Exposition, this course was deemed best. Report received.

The following named gentlemen were proposed for membership in the Institute: Messrs. D. H. Cross, G. A. Douglas, and J. T. Aitken.

These propositions were referred to a committee of three, consisting of A. Hall, L. M. Melander, and C. D. Mosher, with instruction to report at the next regular meeting.

A communication was here read from Mr. Charles H. Peace, Goshen, Indiana, accompanied with a sample of an enlargement—three inch head from a small card, one-half inch head. The enlargement was

considered good by the members, and thanks tendered Mr. Peace for explanation of the process by which it was made. The transparency and negative were both made with one sample of collodion, and developed with iron.

Mr. Hesler stated that he considered the sample before him a good one, yet he did not think that as fine and structureless film could be made with collodion as with albumen.

Mr. Cross thought that collodion, though not as fine as albumen, answered very well where the enlargement was not too great, if properly manipulated. He had not, however, been able to enlarge very much with collodion, and produce the required strength, vigor, and firmness, without after-working the picture.

Mr. Mosher said that he had met Mr. Edwards in Philadelphia recently. Mr. Edwards expressed himself much discouraged with photographers in America. He would return and teach his process to those who had bought it, and were unable to work it successfully, at the same time assuring him that the American photographers' money was not thrown away.

Mr. Hesler thought he could work the Edwards process successfully, and offered to exhibit specimens by it at the next meeting.

Mr. Hall had not been so successful with it, and dubbed it one of the great humbugs of the age.

Mr. Hesler thought the work exhibited at Buffalo by the process was good, and could not see why we ought not to do as well with it in our hands.

Mr. Hall said that the specimens exhibited at Buffalo were all vignettes, with one exception, and worked up in the very best finish in India-ink, &c. He could not see any superiority in a process only capable of being worked for pictures for that purpose, over any other enlarging process.

Mr. Cross thought the process good in the main, but we must not look for remuneration immediately. He said there were many good things in the process, beneficial to photographers in everyday practice, even if it was not practical for enlarging, for how could we make a picture for the microscope with collodion, and then the advantage in the manner of preparing the albumen for use to prepare glass, &c.

Mr. Mosher knew of no photographer working the process in the East.

Mr. Hall said that Mr. Black, of Boston, whose generosity had led him to indorse the Edwards process, was understood to be heartily sorry that he had anything to do with it, as were others who indorsed it.

Mr. P. B. Greene, in speaking of albumen for glass, said: While at Travers' Bay the past summer, my glass prepared with albumen became so soiled that I could not use it. I simply polished it with a tuft of cotton and alcohol. Alcohol will not destroy the albumen, but leave it perfectly clean.

The subject of albumen was discussed. A small quantity of iodide of potassium was generally recommended, say five grains for the white of one egg. The best strength was thought to be the white of one egg to thirty ounces of water, though some use as high as sixty-four ounces of water to one egg.

Acid bath was also a subject of discussion, and it was found that several members are experimenting in that direction.

This subject will receive more attention at some future time.

Mr. J. K. Stevens stated that he had been greatly annoyed by blisters on his prints, and failed to discover a sure remedy.

Mr. Abbott said he believed the hyposulphate of soda bath was generally used too strong.

Mr. Hesler: I put my prints into a solution of bicarbonate of soda before toning, simply washing them once after immersing in the solution, and think the prints tone better.

Mr. Hall gave his method of preventing blisters. (See embodied in paper read at Buffalo, and published in *Philadelphia Photographer* for September.) This subject, after further discussion, was postponed.

Mr. Hall called attention to Dr. Vogel's late book—*The Photographer's Pocket Reference-Book*—and recommended it to every photographer as almost indispensable. No photographer should be without one.

On motion, the Secretary was instructed

to have 100 copies of constitution and by-laws printed.

A bill of $4.75 was presented for postal cards for notice, &c. Approved, and order drawn on the Treasurer for said amount.

Mr. P. B. Greene proposed that we have but one paper on some photographic subject at each meeting, and confine our discussions to it mainly.

There being a vacancy in the Executive Committee, an election was ordered to fill the same, which resulted in the election of Mr. J. K. Stevens, after which adjourned until first Monday in October.

L. M. Melander,
Secretary.

## EDITORIAL CORRESPONDENCE.

Berlin, Prussia, Sept. 2d, 1873.

It is so seldom that I am away from my post, sufficiently long to require me to write a *letter* for the pages of the *Philadelphia Photographer*, that I am at a loss to know to whom to address it. To settle the matter, I will not particularize, but say to my good readers at home or abroad that what follows is intended for them in particular, and for the purpose of assuring them that my eyes are not closed to their interests, although my back is turned to them.

It is just three weeks yesterday since I sailed in the steamer "Cuba," from New York, for these foreign parts. It seems much longer than that, for since landing I have seen so much to interest and to instruct me. I was joined in New York by Mr. Theodore N. Gates and wife, of Westborough, Mass., who having been recently burned out, makes a visit here in the interests of one of our large manufacturing establishments. It was pleasant for me to have company, and such agreeable company, since two or three other American photographers, who had anticipated coming with me, had changed their minds and concluded not to do so.

Our passage was slow but sure—rough from the beginning for two or three days, but after that smooth and warm and pleasant. The rough weather created an exceeding fondness for horizontal lines, although the outward demonstrations of most of the passengers at times gave some most interesting studies in angular and circular composition. The *internal* lines, so quickly transformed into external, bewildered the brain, so that a return to the horizontal was always a relief. In fact, nearly every one was seasick, myself included. Mr. Gates seemed to succeed in avoiding it, until some one carried away his September issue of the *Philadelphia Photographer*, when he succumbed to the prevailing touching complaint, and took his share with the rest.

Saturday morning early, August 23d, we first saw land, and at six o'clock that evening, we landed at Queenstown, Ireland, thankful to set foot on dry land once more. We proceeded that evening, *via* Cork, to Dublin, where I was anxious to go, to pay my respects to an old subscriber, Mr. A. Lesage. We were so fortunate as to find him at home, and were shown the best attention by him. Mr. Lesage is the most enterprising photographer in Dublin; does an extensive business with the *elite* of the city; makes excellent work; is up to the times in every respect, and therefore deserves the success which he enjoys. He has a neat and well-arranged studio, and gives every attention to the excellency of his work. I hope early in the new year that you will all have a chance to see an example of his work embellishing the *Philadelphia Photographer*, when you will see at what height photography has reached in Ireland. Unfortunately, I had not time to go kiss the "blarney stone," or I might say a great deal more for Mr. Lesage. It would be impossible for me to say too much. He is not only an excellent photographer, but one of the most useful and enterprising citizens of Dublin. The great product of Dublin is the well-known dress material known as "Irish poplins." No one visits Dublin without seeing it made, so with Mr. Lesage I visited the factory of Messrs. Fry & Fielding, the leading manufacturers of Dublin. Mr. Fielding took great pains to show us all, and his firm is justly entitled to all the premiums and medals that have been awarded them for their excellent and beautiful goods.

The stereoscopic and view trade is a live

one in Dublin, Mr. E. G. Mare being most extensively engaged in that line. A visit to his establishment was a rare treat, for Ireland is *full* of beautiful subjects for the camera, and Mr. Mare has done it full justice. I hope you will have an evidence of *his* skill in due season also.

Dublin is a most interesting city, with many attractions and many strange sights. I must not take space to mention even a tithe of them. I was so well treated that I was loath to leave it. From Dublin to Glasgow, Scotland, gave us a most lovely and beautiful journey. Ireland's scenery has not been overrated; it is like a grand series of gardens, mile after mile. The fields are small, divided by luxuriant hedges; the little, low houses with their thatched roofs and the well-cultivated land make up a picture not surpassed in any country I have seen. We left this garden spot at Belfast, and from there by boat to Greenock, where we landed upon the shores of Scotland. At Glasgow, to breakfast; a tour around the city, including a visit to the grand cathedral and the necropolis, and then, at 2 P.M., off to Liverpool. At Glasgow we also visited a photographer. The city seems dull after seeing Dublin, although it is beautiful. Messrs. George Mason & Co. are extensive stockdealers here, and Mr. John Spencer is also a large exporter of photographic specialties to all parts of the world. Neither Mr. Mason nor Mr. Spencer were at home.

The ride to Liverpool was also full of interest, and gave us a good idea of Scotch and English scenery. I had intended to visit Aberdeen, to see my old friend, the renowned landscape photographer, Mr. George Washington Wilson, but a telegraph dispatch gave me the unwelcome news that he was not at home. I turned my back to Scotland and its lochs most reluctantly, being in great haste to proceed on my journey, for I have more curious places ahead to visit and must here practice self-denial.

At Liverpool, next day, we visited Mr. Henry Greenwood, the publisher of the *British Journal*, and examined the work of the photographers at their doors. Messrs. Vandyke & Brown seem to do the best work. Here is also located the enterprising stockdealer, Mr. J. J. Atkinson, No. 37 Manchester Street, a gentleman whose father preceded him in the business, and who always printed the "stars and stripes" on his envelopes. The house is still called the "American photographer's warehouse." It is worthy of the name. Mr. Atkinson sells many American goods, and is having much success in the introduction of the Phenix Plate Company's ferrotype plates, the latest American innovation here. There seems to be a constantly growing demand here for the "Phenix," and no doubt the ferrotype is going to have a great run in Great Britain. Mr. Atkinson had gone to Vienna, so I must wait until I arrive there to see him. Mrs. Atkinson and the assistants were very courteous.

From Liverpool we proceeded to London, where, at our hotel, Mr. Walter B. Woodbury was awaiting us. Mr. Woodbury is now personally engaged in the working of his process here and making exquisite work, impossible to distinguish from silver printing. We visited the stockhouses of Messrs. C. E. Elliott, Marion & Co., and J. Solomon, where we saw much to interest, but as I shall return here, I hope to give more particulars, in a future number, concerning photography in London. Mr. Elliot is also pushing the "Phenix" ferrotype plates largely, and is aided by Mr. T. S. Estabrooke, formerly of Brooklyn, N. Y., who now has two or three ferrotype galleries here. I saw Mr. Estabrooke and his good lady, and they seem quite at home in the wonderful city of London. Not many hours after my arrival elapsed before I stood face to face with one whom I have longed to see for ten years—one with whom I have had most pleasant intercourse from the birth of this magazine—one whose useful "Notes" you all find so profitable—Mr. G. Wharton Simpson, the editor of the *Photographic News*. It was a strange feeling to be thus brought together, and seemed more like a dream than a reality. Together we visited Tunbridge Wells and spent an afternoon with Mr. H. P. Robinson, the well-known author of that excellent work, *Pictorial Effect in Photography*, and his partner, Mr. Nelson K. Cherrill.

I shall not tell of the many beauties I saw at their studio now (as I shall go back to it on my route home and *then* take notes for future use), except to mention that I saw many beautiful pictures in readiness for the coming exhibition in London, and also the competing prints for the prizes offered by Mr. Robert T. Crawshay, of Cyfartha Castle, South Wales. Mr. Crawshay's offer you have seen in our Specialties, and also an editorial notice of the same. He is a very wealthy amateur photographer, and makes his magnificent offer simply for the encouragement of greater effort to improve in our art. Would that there were more men like him, willing to do good in this line! I hope the responses to his liberality will encourage him more than similar efforts in Ameriea have been encouraged. While at Tunbridge Wells, I also witnessed the working of the burnt-in enamel process of Messrs. Robinson & Cherrill. I was carried away with its ease and simplicity, and the results are exquisite. Some of you will remember seeing the examples at Buffalo. A splendid business is done in them here, and American photographers must not shut their eyes to such an important source of revenue. I shall have more to say on this subject in the future. A workable process seems to have been the drawback. I think Messrs. Robinson & Cherrill have overcome all the difficulties, and I will reassure myself on this point when I return to London. I also had a few pleasant hours with Mr. J. Trail Taylor, the editor of the *British Journal of Photography*. There are so few of us in the world who have to bear the brunt of the life of an editor of a photographic magazine, that a peculiar "fellow feeling" exists among us, and it was therefore a treat to see this co-worker also face to face, after having been familiar with his work for so many years. Hoping to meet all these good friends again in a few weeks I made my departure for Paris, where I had some special business. I parted company also with friend Gates, and now began to travel alone. I was in Paris only a few hours, but saw enough of it to make me want to go back, which I hope to do.

From Paris I went to Brussels, Belgium, which is Paris in miniature, and a most beautiful and attractive city. Here I found another contemporary, Mons. Deleterne Walker, editor of the *Bulletin Belge de la Photographie*. Here I heard of Prof. Towler, who with his troupe of pupils had preceded me a few weeks. Brussels has many good photographers who are making excellent work. It is evidently a city where good work is appreciated. Some of the buildings in Brussels are magnificent works of art themselves, and one could easily find occupation there for a week. I was sorry to leave it so soon. From there I visited some of the photographic glass manufactories of Belgium, and then to Cologne, to see the greatest cathedral in the world; then a trip on the Rhine and up some of its mountains, and thence to Dusseldorf on the Rhine, where I found still another contemporary, Dr. Paul Liesegang, editor of the *Photographisches Archiv*, and the most extensive manufacturer of and dealer in photographic goods in Europe, perhaps. I was surprised to find such an important trade in this section, as from here goods are exported to almost all parts of the world. I have made some useful notes for future use, as I must not now go into details. Dusseldorf is celebrated for its school of painters, and is *full* of pictures. Every new picture is photographed before it is sent away, and this work is done by Mr. G. Overbeck, whose model establishment I visited. A description of it must be reserved for another time.

My next departure was made for Berlin, where for twenty-four hours I have been arm in arm with *our* good old friend Dr. Vogel. We all know that there is only one Dr. Vogel, and we are all aware of the ardent zeal he has always evinced in behalf of photography all over the world. His magazine, the *Photographisches Mittheilungen* has a wide influence here, and Dr. Vogel not only has the good-will which true German hearts feel for those whom they respect, but he has an influence for good over them which I see acknowledged everywhere. He is also a professor in the Berlin Institute of Technology. I visited his department, which is complete and supplied with every convenienee for instruction in photography as applied to industrial purposes. Each department of the work

has a separate room devoted to it, which is a great advantage, and from this grand institution each year goes forth a number of pupils to embark in the art of photography, well knowing its difficulties beforehand and experienced in them sufficiently to be able to overcome them. Oh! for the time when we can have such a school of instruction in America. I have yet a treat before me in visiting the photographic studios here, and also in meeting the German Photographic Society, but the necessity of closing to catch the mail makes me defer notes on them until my next. Mr. Romain Talbot, the well-known inventor, manufacturer, and dealer in photographic goods here, awaits me and I must close. I am experiencing now some of the *advantages* of my connection with the *Philadelphia Photographer*. I find good friends wherever I go, and I regret parting with them, and the necessity of so short a time with each. I am having a grand feast of fat things in art matters, and am making extensive notes for future use. I trust all is going well with you, and in good time to be returned to my work.

With best regards to all, truly yours,

EDWARD L. WILSON.

## A SINGULAR EFFECT.

PROF. TOWLER sends us a stereograph picture of the sun with a singular halo around the image, upon which he makes the following remarks:

The inclosed stereograph was sent to me for explanation. The halo around the sun was not observed at the time the negative was taken, but was discovered as soon as the picture was developed and fixed. Immediately afterward another negative was taken, but no halo was again visible. The parties who took the negative naturally exhibited prints of it to the learned men of the place, and an article on the subject appeared in the journal or newspaper, describing hypothetically what the luminous ring might be. The hypothesis of the phenomenon attributes the halo to the photosphere of the sun, or something belonging to the sun itself as an atmospheric emanation. As I said at the beginning, the subject is sent to me for explanation, and I willingly undertake this explanation, because it calls into play the efficacy of stereoscopic vision in determining philosophic truths.

In the first place, supposing for a moment that the halo is the photosphere of the sun. Let us measure its diameter. The diameter of the disk of the sun in the stereograph is one-sixteenth of an inch, that of the inner circumference of the halo is .275 of an inch, and that of the outer circumference is .355 of an inch. Now the real diameter of the sun in miles is 896,118; from this we deduce the diameter of the inner circumference to be 3,942,919 miles, and that of the outer circumference to be 5,089,950 miles; hence we find that the width of the halo is 573,510 miles, and the distance of the inner circumference of the halo from the surface of the sun is 1,075,341 miles. Thus we see that if this luminous ring belongs to the sun itself, it is situated more than a million miles from the sun, which is more than 138 times the diameter of the earth. Such a theory or hypothesis is therefore not very plausible, and especially so when we find that the space between the sun's disk and the halo is not graded with radiary effulgence. We will, therefore, abandon this hypothesis.

Now let us see if the phenomenon has its origin in the atmosphere of the earth. To determine this point we avail ourselves of the deductions legitimately drawn from stereoscopic vision. If the halo is in our atmosphere it will then form the base of a frustum of a cone, of which the sun's disk will be the smaller end. If the stereograph, therefore, be examined strabonically, we shall see the disk of the sun nearer to us than the plane of the halo, and if it be examined by means of the ordinary stereoscope, the broad base of the halo will be nearer to the observer than the disk of the sun. By both these examinations the results will be found to exist as I have just described them. This mode of observation determines without a shadow of doubt that the luminous ring owes its origin to a halo in the atmosphere, produced by the refraction of the rays of the sun through an atmosphere loaded with vapor.

N.B.—In the stereograph in question the two pictures are not of the same size, from

which it may be deduced either that the two lenses have not the same focal length, or that one was not in focus. I am inclined to think the latter is the cause.

The stereo was made by Mr. George S. Irish, Glen's Falls, N. Y.

## INDIANA PHOTOGRAPHIC ASSOCIATION.

THE Indiana Photographic Association is preparing for an unusually interesting occasion at its next meeting, which will take place on the evening of the first Wednesday in October. "This will be when the Indiana State Fair and Exposition" is at the zenith of its interest, and when large numbers of photographists from abroad will be in the city, and to all such a cordial invitation is extended. The meeting will take place at Harry Fowler's gallery, 24½ East Washington Street, where there is abundance of room. A lecture by Prof. R T. Brown, and a magic lantern exhibition will be among the interesting features of the occasion. J. PERRY ELLIOTT.

## RESITS.

"This sickness doth infect
The very life-blood of our enterprise."
—KING HENRY IV, Part 1.

A GREAT source of disgust, and consequently carelessness on the part of photographers, the cause of much indifferent work, is to be found in the fact that we never seem to see the last of a customer. The evil of resitting is beginning to assume, if it has not already acquired, gigantic proportions, and must, sooner or later, be put a stop to. Some check in reason must be resorted to, by the photographer, for it is evident, that "owdacious" individual, the average sitter, cannot consent to feel satisfied with his picture unless he has sat at least three or four times. The privilege granted in the first place to afford opportunity for a sitter to get a really satisfactory picture, is now exercised on all sorts of lame excuses, and is almost played out. The old adage, "Place a beggar on horseback and he will ride to the devil," finds here a very apt application. This concession, as is usual in such cases, is being imposed upon till it is wellnigh ridden to the ground.

If there was reason in one quarter of the objections daily made, to proofs, on which is based the *demand* for another sitting, there are few photographers who would feel hurt at the thought of being obliged to go over all that weary ground again, with the lame chance of being able to please any better than before; nay, most of us would be glad, rather, to have another chance of improving on our first effort, with the advantage of seeing what to avoid in the after trial—but when it comes to a third and fourth sitting because the crease in the coat makes it look as if a ready-made article, or this "clean biled rag" looks horrible because there is shadow marring its gleaming, starchy expanse, or a shirt-stud appears a little on one side; it becomes, to say the very least, a trifle monotonous. A maddening sensation comes over the luckless artist when he hears of ties untied and awry, brooches out of place, a straggling lock of hair, rings and watch-chains hidden, and he would fain go teach art to the untutored, unornamented, unsophisticated savage.

There is, too, the ubiquitous young-old lady who brings the picture of a lovely girl of eighteen with the request that the artist may make such a likeness of her. Of course the result is caricature, and disgust on the part of the misguided woman whose thoughts ought to be set on a better world.

Sooner or later it will be found that photographers must take this matter into their own hands, to remedy this growing evil. To make a small charge for negatives would tend materially to limit the number of sittings, and I venture to think with such an arrangement, one sitting would be found to suffice most of those who are now so prone to grumble and sit over, and still grumble.

WILLIAM HEIGHWAY.

A PHOTOGRAPHIC PRINTING COMPANY is being organized in Liverpool with a capital of $250,000.

## Accessory Negatives with or without Silver or Camera.

Upon even, thin, transparent tissue, sketch with a fine-pointed pencil a bird flying, cut all margin from the picture, fill in the desired high-lights or intensify with a pencil, place this tissue-negative between the negative and the sensitive paper, then print, and you will soon see the effect. By this process you can print in objects in pictures that will much add to their beauty. The same process might be used by photographing on very thin paper or any other thin transparent substance, and be introduced as accessories, especially when you wish to represent or introduce instantaneous objects in printing from old as well as new negatives.

H. C. Wilt,
Franklin, Pa.

## SOCIETY GOSSIP.

The Societies are now resuming their meetings, and we hope to see many new ones spring up during the winter as accessory to the National Photographic Association. We will thank the secretaries to send us promptly a full record of their proceedings.

German Photographic Society (New York), July 3d.—

Mr. Jahn was elected a member.

A committee, consisting of Messrs. Lewin, Trapp, and Flach, was appointed to see to the suitable erection of the Society's show-frame at the Buffalo Exhibition, and to represent the Society in the meetings of the National Photographic Association.

On motion of Mr. Schoen, a standing committee was appointed to read all photographic journals and to report at the meetings which articles would be worth reading and which not, in fact, to sift the grain from the tares. The committee consists of Messrs. Schoen, Martin, and Boettcher.

Brooklyn Photographic Art Association (Brooklyn), July 7th.—Met one week earlier than usual on account of the National Photographic Convention at Buffalo.

After the usual form of opening, Rev. Dr. Chas. Hall was proposed for membership and unanimously elected by acclamation (being an amateur photographer); Mr. Theodore Grannis was elected an honorary member, and Mr. J. Morrison was elected by ballot.

Mr. Alva Pearsall moved a vote of thanks to the Brooklyn *Eagle*, *Union*, *Sunday Review*, and *Times*, for giving to the public, in their editorial columns, the resolutions on diplomas passed at the last meeting. Carried.

Mr. Alva Pearsall, as chairman of the committee appointed to wait on the Brooklyn Industrial Fair Association, stated that the Association had voted on the resolutions and accepted them, and in future would issue no diplomas.

Mr. Troxell moved that all galleries close at 3 P.M. on Saturdays during July and August. Carried.

Mr. Williamson exhibited photographs made on drawing paper. Mr. G. F. E. Pearsall exhibited photographic enlargements by the wonder camera.

## THE CENTENNIAL.

We have already called the attention of our readers to the great event of the Centennial Exhibition to be held in Philadelphia in 1876, and we hope you will all begin now to think over the matter and to keep it before you.

The committee appointed for the purpose by the National Photographic Association have already held conference with the United States Centennial Commission, and the interest and co-operation of our Association has been invited, and undoubtedly the Photographic Department will be given in charge of the National Photographic Association. You shall be kept fully posted; and already matters are under way which will insure an exhibition of photography from all parts of the world in 1876.

Talk Centennial wherever you go. Work for it whenever you can, and come here in 1876 to see the result of your labors.

We shall ask you about thirty times more to do this, but begin to remember it now.

## ON THE PHOTOMETRY OF COLORS.*

When first I received the invitation from our worthy Secretary to write an article, or speak upon some subject connected with the interest of our profession, I thought best to give as nearly as possible a scientific exposition of a new discovery, by myself, which I shall term the Photometry of Colors. But as such an exhibition would have been attended with unwarrantable expense in providing necessary optical apparatus, and as I should be obliged to have some large room so fitted as to exclude all solar light, I have concluded to give in its place a review of the incidents, perhaps I might more truly say *the accidents*, that led me to experiment and investigate this phenomena which is so interwoven with photography.

I am more fully assured since our "session upon skylights," that this latter method of relating my experiments will be more beneficial, and more readily understood, than a scientific exposition would be; inasmuch as a large class of photographers who have never contemplated the *science* beyond simple "cause and effect," would be misled, and fail altogether, in appreciation of this new theory, which is so intimately connected with the science of photographic portraiture.

You will agree with me, gentlemen, that this is an age of science. Science knocks at the door in every department of philosophical, mechanical, or metaphysical research, and demands *a reason* for every phase of cause and effect, and at every step. There is no condition of human progress that is free from this demand.

It even attacks our religious opinions, and demands *a reason*, for matters of conscience. For one, gentlemen, I am glad to feel and know that I live in such an age, and am surrounded with such an atmosphere of thought.

I have, in all charity, a poor opinion of any man or woman, who accepts and swallows the *ipse dixit* of their minister or their "ma," as they would the contents of a plum-pudding, or as a child does the veracity of a "Santa Claus" or a "Mother Goose."

Every person has a right—a human right—to stand up in the God-likeness of *true manhood* and womanhood, and demand a *reason*, a *scientific reason* for every phase of material metaphysics, whether it be the "philosophy of the plan of salvation," or the "philosophy of the photographic art."

This condition of human affairs is *absolutely necessary* to human progression; without it there is no such thing as intellectual growth, because science is the basis of intelligence. I make this eulogy to science as a preamble to what I am about to say, because I want every photographer to go away from this Convention, convinced as never before, that photography too is based upon a science, or sciences, as firm as the foundations of earth, and as immutable, and as sure and stern as infinite jurisprudence can make them, and all of you who would succeed in the practice of your profession must grapple these sciences and make yourselves *masters of them;* in other words, you must work at your business understandingly, or in five years from date you will be weighed in the balance of photographic excellence, and found,—out in the country shovelling dirt on a railroad,—a position that I believe many photographers and other professionals of America could fill with becoming dignity and great *eclat.*

There are too many engaged in our art as well as in other professions who ignore, *in toto*, both science and reason, and if there are any discrepancies in the results of their formula, they will attribute it to *its* lack of *capability*, rather than to a *lack of their knowledge of the art.* This class are ever trying to bend science to their "seven by nine" opinions, and consequently work in season and out of season with very much the same result, and are ever crying that "there is no such thing as advancement in science, that the ancients knew as much or more of science than we do; that there is nothing new under the sun," even from Moses' time down to the present era. Now, friends, you will please compare in your mind the respective merits of Pan, a musical god of heathen mythology, who is said to have made music with reeds, or pipes

* Read before the National Photographic Association at Buffalo, but received too late for issue with the report.—Ed. P. P.

that he formed of reeds, and the grand piece of musical mechanism (an orchestron), which is the result of the labor and skill of a citizen of this place—Mr. Blessing—who has collected all the woods, all the metals, I might truthfully say all the material elements of a universe, and constructed for our pleasure a musical instrument that in its mechanical combinations challenges the artistic skill of a full orchestra; and in its complexity and conciseness the admiration of all mechanics in every branch of science. What is to be said of the respective artistic merits of the ancient hieroglyphics representing men, birds, and beasts, as seen in the Pyramids of Egypt, and the grand display of photographic work, now on exhibition at the Rink in this city? Which age shows the more of science; in which would you rather live?

With these preliminary remarks, that you may more fully understand my position in science as well as in all theories, *i. e.*, a desire to be able to comprehend the basis of all phenomena, I will proceed to the subject in hand, viz., the photometry of colors, or more strictly speaking, a measurement of the focus of colors and their relation to photographic chemistry.

I do not remember to have seen any written article upon this subject by any photographer or scientist, and in my experiments and researches upon this point I am not indebted to any one, excepting in a general way to such writers as Abbott, Tyndall, Newton, Herschel, and others. I have in connection with my gallery a work-bench and set of tools—what photographer has not? On my way to my shop or bench one day, I incidentally picked up two strips of glass, each about eight or ten inches in length, and about one-fourth inch wide. The most noticeable difference between them was, that one was a strip of ground-glass, the other, orange or yellow glass. I must here state that my shop is in the basement of my building, and is lighted by only one south window. In fussing around, I accidentally happened to set both pieces of glass in the window, and was somewhat surprised to observe that the shadow of the ground-glass was very indistinct and transparent, whereas the shadow of the yellow glass was more defined and less transparent An experiment with purple and with blue glass gave different results from either of the others—each one seeming to have a shadow peculiarly its own. I found that, by placing a strip of yellow glass behind the ground-glass, the shadow it reflected was nearly of the same density as that of the yellow glass alone.

These little experiments so amused me, that I was induced to try others, as there was another point to be ascertained, viz., to what general point would two rays of the same color blend, or focus. I closed up my window so as to exclude all solar light, then with a small gimlet I bored two holes through this covering to my window, about half an inch apart, one over the other. By placing the ground-glass so as to cover both these holes, I noticed that the two rays of light passing through the holes and glass seemed to unite at a distance of nearly five inches; the same trial with the purple glass made the rays unite at about seven inches; deep blue glass, at nearly ten; red glass, fifteen; and yellow glass, over twenty inches. To me this was a real discovery, because it settled in my mind that colors were of different focal length, and, being so, affected or reduced the iodide of silver, in sensitive films, each in a different way. I subsequently ascertained that Tyndall and others had established the focal length of colors; but have not, to my knowledge, determined their respective actinic force. I have another theory beside the above mentioned, that goes to more fully establish the relative focal length of colors, and at the same time determines to a certain extent their actinic capabilities. Dr. Young and Augustine Fresnel, both eminent philosophers, were the first to establish the basis of what is called the "wave theory" of light.

According to data arrived at by these gentlemen, a wave of pure solar light, in a clear atmosphere, is $\frac{1}{75000}$ of an inch in length; that of violet light, $\frac{1}{57500}$; that of blue, $\frac{1}{49500}$; red, $\frac{1}{39000}$; yellow, $\frac{1}{27500}$. In fact, "the color of light is determined solely by its wave length." Now the velocity of light being 192,000 miles in a second, if we ascertain the number of waves of each color in a mile, and multiply this by 192,000, we

obtain the number of waves that enter the eye, or attack the surface of iodide of silver, in a second of time.

Thus the waves of pure solar light amount to 913,384,192,375,000. In the same interval of time 699,000,000,000 waves of violet light enter the eye or attack the sensitive film of your plate.

As violet light stands next to pure solar light in its actinic capabilities, you can easily understand what a large percentage the reflection of solar (white) light has over that of any other, the difference in this instance being 214,384,192,375,000 in favor of white light in a second of time. Now, gentlemen, do you fully understand how it is that the human face, which is possessed of from three to seven *distinct* colors, tends to solarization in what we term the "high-lights?" Do you see how futile it is to attempt to photograph a red face with white draperies, a yellow face with purple clothing, a sunburnt and freckled face in white linen and laces? Do you not now see at what a fearful discount you work when you attempt to make a finely-modelled picture under these circumstances? Do you wonder that so many otherwise good pictures, are so flat, white, and chalky in the high-lights? Seven-eighths of all photographs made, which are failures in lighting and likeness, are attributable to this phenomenon alone. I do not agree with the gentlemen who preceded me this afternoon as to the capabilities of our art, for I feel assured that the science of photography is as capable of perfection, when understood, as the science of medicine, geometry, or any other occult science.

"The fault, dear Brutus, is not in our stars,
But in *ourselves, that we are underlings.*"

In other words, the fault is not in the capabilities of our art, "but in ourselves;" *we do not yet fully comprehend the situation.*

I doubt not, gentlemen, but that many of you have been as heartsick and despairing as I have been, when you have noticed these results, for I often feel, as regards photographic excellence, as though I had "come up through the valley of the shadow of death," for these fearful discrepancies in colors in the human face, as well as in dress, will sicken any man who is professionally called on "to harmonize and *make all beautiful!*"—unless he can close artistic eyes, and "*go it blind.*" Now, friends, that we are sick, let us look for a specific. *My* cure is homœopathic, "Similia similibus curantur," or words to that effect. You will remember my experiment in obtaining a shadow through ground-glass, by putting yellow glass behind it. So in portraiture. I use different colored reflectors, according to complexions. If red predominates in the face, use red as a modifier; if blue, yellow, or brown, *use* blue, yellow, or brown. The rule is, look for the most non-actinic color in a face, and select the colors of your reflectors accordingly. Why? Because, by flooding the face with any color, you thereby tend to *reduce all colors to a mean focus*, or to reduce the difference in the length of the waves to an approximate length.

I tried this theory for several months, and find it works nicely, and will do away with seventy-five per cent. of retouching, which is an item nowadays.

I have for this purpose two sets of screens, one of which you can see at the Rink, and I shall be pleased to show how to use it to any who may desire to see it. I am fully convinced in my own mind that our present system of constructing skylights, as well as the general system of lighting, must undergo a change, as there is but little more to be hoped for in the art. I give you these thoughts, and the use of my system of lighting, free of charge. *I have no patent.* I have given you the particulars of my theory, not so much to provoke criticism as to provoke thought. I have spent considerable time, and some money, in experimenting upon this theory; and, in soliciting friendly criticism upon this subject, it must be understood that it shall be conducted upon the mutual plan of "the greatest good to all interested;" in other words, "*a harmonious light.*"

Those who know nothing of the science of light, optics, or chemistry, had better far save even an opinion, as I have no time to devote to such critics. Should the members of the Association desire it, I shall be pleased to give, through the columns of the *Philadelphia Photographer*, a sequel to this theory, which shall be a little more scientific in form

and philosophical in matter, some time this fall.

Thanking you, gentlemen, one and all, for the courtesy and attention with which you have listened to my paper, and hoping to meet you all many times in the future—assuring you that I candidly believe, as I believe in the science of mathematics, as I believe in the science of human progression, that the photographic art is as yet in its infancy—that as a science it is one of the leaves of the *great book of Infinity*,

I am, fraternally yours,

Wm. M. Lockwood.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*Influence of Colored Light on the Tone of Prints.—Securing Intensity in Emulsion Negatives. — Permanency of Collodion Transfers.*

*Influence of Colored Light on the Tone of Prints.*—I have recently had some very curious experiments brought under my attention by a correspondent in Belgium. If the results are not exceptional, they suggest a curious influence of colored light in printing in modifying the tone of the print. The experiments have been made in a direction which has hitherto received but little attention, and in relation to which experience has not hitherto suggested the necessity of research. Apart from the supposed existence of "continuating rays," which have no bearing upon the present experiments, the action of light upon sensitive salts of silver has been regarded as simply of a reducing character, and the effect of colored light, or of colored media for transmitting white light, has been regarded as simply modifying the intensity of the action, yellows, reds, and greens cutting off so much actinic power, and retarding the reduction. The experiments of my correspondent, with some of the results of which he has favored me, seem to indicate that, apart from the mere question of intensity, a definitely modifying influence is exercised by colored light on the color of the reduced silver.

Such a statement seems startling, and the facts are so curious and unexpected that they may naturally be received with incredulity, and will certainly require repeating and verifying before any theory can be deduced from them; but so far as they go, the results seem thoroughly to justify the statements of my correspondent. The prints are produced upon a commercial sample of *Rive* albumenized paper sensitized on a bath made after Mr. Bovey's formula, containing nitrate of soda and a little sugar, as well as nitrate of silver. They are all printed from the same negative, but some with thin pellicles of colored gelatin interposed—yellow, rose, and green. Under the yellow gelatin the reduced image is of a deep slaty blue tone; under green gelatin the tone is similar; but under the rose-tinted gelatin the image prints of a reddish-brown tint, closely resembling a print produced without any interposing medium, but with the peculiarity that the image seems much more in the paper than that printed in the ordinary way, in which the image is quite on the surface. These results are not only seen in the prints as they come from the pressure-frame, but are persistent, and characterize the portraits after toning in the acetate bath and fixing in hyposulphite in the usual way. Another series of prints illustrate this very perfectly: those produced under the green and yellow pellicles retain their bluish character, and are, after toning, of a lavender-gray tint; whilst that under the rose-tinted gelatin and that without any medium are of a purple-brown tint.

The first natural suggestion as an explanation would be, that some difference in the depth of printing would explain the result; but this fails, inasmuch as all the prints are of one uniform depth of printing. Difference in the time of floating the paper might be supposed to affect the question; but all the prints are from one sheet of paper, floated at one time and cut up after. The only difference of any kind consists in the different colored media interposed. Some experiments with a sample of the paper and media employed have in my own hands produced similar results to those described. The impression of my correspondent appears to be that the characteristic color of

the reduced chloride and albuminate of silver is modified by effect of the colored light, and that the modification tends towards the complementary color of the medium interposed; thus a blue tint is produced where the light is transmitted by a yellow medium. This, at first glance, seems plausible; but verification by multiplied experiments will be necessary before assuming the existence of such a principle as is here supposed.

I remember on one or two former occasions to have met with some curious and unaccountable variations in the tints produced by printing on the same piece of paper. Mr. Blanchard once showed me some prints from a stereo negative from the two halves of which prints were always obtained of a different tint on the same piece of sensitive paper, one-half inclining to lavender and the other to brown, the tints remaining inconveniently persistent, even after toning. No explanation appeared to account satisfactorily for the fact at the moment, and it was not, I believe, further investigated.

Some years ago I made some interesting experiments in securing different tones by printing with light of varying intensities, based upon the varying sensibility to different kinds of light of albuminate of silver and chloride of silver, the two sensitive salts present in ordinary photographic paper when ready for use. A possible explanation of my Belgian correspondent's results may be found in the varying sensitiveness to light of these salts. I found that albuminate of silver assumes a warm brown tone under the action of light; chloride of silver assumes a lavender tint under the action of light; that albuminate of silver is comparatively insensitive to feeble light; whilst chloride of silver is easily affected by it. Hence, printing albumenized paper in sunlight generally gives brown prints, as the albuminate is reduced and colored in relatively greater proportion than the chloride. Printing in diffused light gives bluish prints, because the chloride is reduced and colored in relatively greater proportion than the albuminate. The same facts would obtain in printing through colored media. Through yellow or green, which will retard the process, the chloride will be reduced in comparatively greater ratio than the albuminate; hence prints of a lavender tint will be produced. Through a rose-tinted medium and no medium at all the printing will, it may be supposed, go on quicker, the light being practically stronger, and more of the albuminate being reduced, will give a browner tone to the print. This explanation may meet the facts, but it is only fair to add that in my own experiments I did not find sufficient difference in the time of printing to permit this explanation fully to meet the case. My correspondent has promised, however, to prosecute his experiments further, and let me know the issue. I shall await, therefore, with interest the result of his further investigations.

*Securing Intensity in Emulsion Plates.*—One of the chief troubles which experimentalists in rapid bromide emulsion plates have found has consisted in the difficulty in securing a vigorous image without considerable after-intensification of the negative. Col. Stuart Wortley has recently got rid of this difficulty. Writing to me recently he says:

"It is, probably, well known that an emulsion containing the maximum of nitrate of silver, such as I have recommended, has a great tendency with some pyroxylines to give an image so thin as to require intensification with silver; this thinness of image, we are all aware, can be counteracted by the addition of more bromide to the emulsion, but with this serious disadvantage, viz., that every grain of bromide added detracts much from the sensitiveness of the resulting emulsion. Impressed with this fact, I have been for some time working in the hopes of being able to replace the bromide by some other salt of silver, which should confer density on an emulsion without in any way injuring its sensitiveness. I find the malate of silver to be a salt which exactly answers the conditions I have laid down, and I send you two plates prepared with malate of silver, in order that you may see the character and quality of negative to be obtained therewith. I believe you will find them very sensitive, and with both intensity and density sufficient to give a splendid negative with the first application

of the alkaline developer, no forcing whatever being required. I am so satisfied with the value of this salt, that I shall use the malate of silver and uranium in all my future dry-plate work." Some of the negatives produced from the plates so prepared were shown to me a few days ago. They were in every respect all that could be desired.

*Permanency of Collodion Transfers.*—A favorite mode of producing enlargements with many of our photographers consists in producing a large collodion transparency and transferring it to paper. I don't know whether this method has obtained much among American photographers or not, or what their experience regarding it may be. Here the permanency of the results so gained has been generally taken for granted, but a correspondent writes to me, a few days ago, expressing the gravest doubts of the stability of such prints. He says:

"To tell the truth, I am not at all assured of their safety (the collodion transfers). I am told that as collodion negatives are permanent, these transfers must be; but I think you will follow me when I say that there is practically a vast difference in the two cases. In the first place, the support of the negative is impervious to air and moisture, which is not the case when the collodion film is transferred to gelatinized paper. In the second, the film (of a negative) is protected by a coating of varnish; in a transfer it is left exposed to the air. Is this safe? I think not. We all know how soon an unvarnished negative becomes discolored (tarnished); will this not occur more or less in a transfer? If so, how can the defect be remedied, and what varnish can be employed for the purpose of covering the film?"

Theoretically it might be expected that such an image would soon tarnish, but fortunately facts seem to be on the side of the transfers. Every photographer knows that a ferrotype, or a collodion positive or negative on glass, if exposed to the air without varnish, very soon becomes tarnished, and it might be expected that a similar picture transferred to paper would be still more liable to injury from similar causes. There is this important difference, however, in the conditions: in the picture on glass the metallic image is uppermost, and, if unvarnished, is brought into immediate contact with atmospheric influences; in the transferred print the metallic image is, as a rule, placed in contact with the mounting paper, the collodion film being uppermost, and acting, therefore, as a preservative varnish. But the chief argument for the stability of such pictures is, as we have said, derived from facts. I have prints in my possession which I produced in this way twelve years ago, in which no change is perceptible, and I have some which were produced commercially in Paris nearly as long ago, in which we can see no change. The only cases, in fact, which have come under my attention in which deterioration or change of any kind has occurred, have consisted of prints toned with some salt of mercury, the instability of such salts being well known. I think that the experience of a dozen years pointing definitely to stability is a tolerably satisfactory argument, and that this method may be safely trusted for a degree of permanence as high as it is possible to secure in silver prints.

## VIENNA EXHIBITION.

*France — Spain — Portugal — Switzerland— Sweden—Norway—Denmark—Italy—Holland—Belgium.*

In my last letter I spoke of the American exhibition, which in the meantime has received important additions, particularly by the arrival of apparatus from the Scovill Manufacturing Company. Amongst these not only the splendidly worked camera boxes attract general attention, but also the practical arrangement for multiplying. Very good is also the employment of the endless screw for changing the position of the ground-glass A single movement of the hand is all that is necessary, while with the ordinary swingback, a screw had to be loosened first, next the desired inclination had to be given, and finally the screw had to be tightened again to keep the ground-glass in position.

Especially interesting for us here is the camera stand with the snake screw. The

stand is here entirely new, and surprises not a little by its simplicity. The exhibition of Kurtz has received some excellent additions, by two portraits which were forgotten in the box.

I now turn to France. France is the mother of photography, but in Vienna she has placed only a limited number of objects on exhibition, which stand in no proportion to the size of the country or to the number of photographers. The American will miss Adam Salomon, who it is said does not photograph any more, but we find other younger artists who work in his style, and here it is particularly Walery, of Paris, who distinguishes himself.

Walery is a very able portrait photographer, who already in 1867, exhibited pictures which resembled those of Adam Salomon. He resided formerly in Marseilles, but has now a grand portrait gallery in Paris. Besides Walery, Reutlinger maintains himself very honorably; he has lately made Rembrandt effects and gelatinized cards. In regard to the latter, the so-called enamel pictures, I remark that the employment of hot rolling, which was invented in America, and which is illustrated here by samples of Rocher, of Chicago, yields as fine results, and is much more simple.

Besides Reutlinger I have to mention Lumiere, of Lyons, who exposes very handsome portraits. Otherwise France exhibits but little in portraiture which deserves notice, nor would landscape photography deserve mentioning if it was not for Harrison, of Fontainebleau, who exhibits a number of charming landscape pictures, which really are little works of art. An enlargement which the same gentleman exhibits is also very handsome.

The French exposition is important on account of the samples of different photographic printing processes. Roussillon, of the house of Goupil, is the first who deserves attention. He exposes not only excellent Woodbury prints, but also samples of a new photographic copper-print process, which indeed yields very promising results in half tones. Besides him Amand Durand and Baldus are important in heliography. Amand Durand exposes particularly, prints which are made in the printing-press. They are a success. The printing-plates of Lefmann, in Paris, deserve also acknowledgment. The latter is said to employ a very nice trick, in order to get very deep lines on the zinc plates.

The zinc plate, which has been coated with chromate of gelatin, and has been exposed to light and washed, is corroded with an acid. It is next washed again and slightly inked. In this way the sides of the lines become coated with greasy ink, and are protected by applying the acid again; the lines will be eaten deeper into the zinc without danger that the furrow will be widened laterally. When the process is repeated several times very deep lines will be obtained, and we get plates which can be printed in the printing-press like woodcuts. The samples on exhibition speak for the excellence of the process.

Fortier, of Paris, exposes very good photolithographs, amongst these some on silk. Interesting is also a tableau which the Photographic Society of Paris exhibits. The case contains proofs of all the photographic inventions made in France, the samples being made by the inventors themselves. We find here the almost faded original picture by Daguerre himself, also the first heliograph by Niepce, the uranium pictures and albumen pictures by Niepce de St. Victor, photolithographs and carbon pictures by Poitevin, &c. These specimens are a compliment to French inventiveness in photography. One invention, however, is only represented in name and not by specimen. I refer to photographs in colors; these are too transient for the purpose of exhibition.

I mention here that the French Society, for what it has done for the promotion of photography, received the diploma of honor.

Colored pictures of a peculiar kind are exhibited by Vidal, of Marseilles. They are, so to say, a combination of photographs and chromolithographs.

Take, for instance, three squares, red, blue, and yellow. If we take a picture of these through a blue glass, the blue will act with great intensity, while red and yellow will have no effect whatever. When we make a "lichtdruck" of it, and print it with yellow color, the red and yellow squares

will be reproduced yellow. We now take a second picture through yellow glass, and a third one through red. In the second one (according to theory) the yellow should be most intense, and red and blue not. We make of the second negative a "lichtdruck," in blue color, and the red and the blue will be produced blue. If we print now successively both plates on the same paper, we will get the yellow and the blue squares correctly. In order to get the red one also, it will only be necessary to take another negative through green glass, and to print with a red color. The matter is certainly not ripe yet, and considering the slight actinic action of the yellow and the red rays, considerable forcing seems to be necessary in order to obtain any results.

Geymet and Alcker have exhibited a practical idea. They have given to chloride of silver collodion pictures a peculiar color, by pasting gold paper or other colored paper to the back of them. They exhibit a moonlight landscape with fairies, which, by the blue paper which has been pasted on the back of it, makes a very peculiar impression. The pictures of old armor are also very peculiar, the gold paper which is pasted at the back gives to them the appearance as if they were made of gold. I must remark that moonlight scenes are much in vogue now in Italy. Naya, amongst others, makes views of Venetian buildings, which he prints rather darkly on blue albumen paper, and in this manner gets a moonlight effect.

Of other Frenchmen, I mention Jean Renaud, who exhibits four good landscapes in carbon. Carbon prints are otherwise but poorly represented in the exhibition.

Bernoud, of Lyons, exhibits a whole line of medallions; these are portrait heads of living persons taken in profile in the shape of a medallion, with the name of the person attached. This is a novel, although not a very tasty, idea. In conclusion, I mention the burnt-in enamel pictures of Roydeville, which are very handsome, and also Geyser's pictures, taken in Algeria. Lamy, Leon Levy, and Lachenal distinguish themselves in portraiture; the latter exhibits also transparencies for the magic lantern. I mention this particularly, as this branch of photography is but poorly represented in the exhibition. It is unfortunate that lantern slides are but exceptionally made in Europe. Of the vast importance of the lantern for school purposes we have no idea here.

Spain has exhibited but little; of photographers I mention Otero and Alviach, of Madeira, also Roccafull. The latter has exhibited a picture of the moon, which, however, does not bear comparison with Rutherfurd.

Portugal is much better represented, not only by splendid pictures of the solar spots, taken at the observatory in Lisbon, but also by charming landscape views on the Island of Madeira, taken by Camacho, and also by a number of pictures taken by Relvas, having for their subjects architectural views, animal pictures, stereoscopes, carbon prints, &c. Relvas distinguishes himself as a skilful amateur.

Little Switzerland seems to have a good many photographers, amongst which the Brothers Taeschler and Taeshler Singer, in St. Gallen, distinguish themselves in portrait photography. Landscapes are, in spite of the beautiful Swiss scenery, but poorly represented. Charnous, in Geneva, has exhibited the best. Better Swiss landscape pictures have been made by outsiders.

In Italy the case is different. It may boast of able architectural photographs; the thousands of works of art offer an abundance of material, and the numerous travellers are ever ready to purchase. Portraiture does not flourish in the same measure. Many will admire the portraits of Vianelli, in Venice, and the *genre* pictures of Sergato, which are very large, but the connoisseur will miss the true artistic arrangement, the well-selected pose, and the harmony of light and shadow. The backgrounds of Vianelli are mostly too dark, and when he employs a landscape background, the effect is absolutely unnatural. Sergato places in his pictures a great many accessories, which make the picture look fanciful, or he leaves it so bare that one notices at once the atelier. The persons make more the impression of dressed up masks than real beings. The difference strikes you at once when you compare these pictures with the artistically finished still-

life pictures of Loescher & Petsch, which are placed not far from them in the rotunda.

The most important Italian photographs are placed in the rotunda, except those of the Brothers Alinar, of Florence, which are placed in a side court, and are not readily found. As a surprising piece of art, we have to acknowledge the Church dei Miracolli, at Brescia, the entrance gate of which Rosselli, of the same place, exhibits a gigantic photograph. The same is three metres long and three metres high; the picture has been taken in parts, and afterwards skilfully pasted together. In spite of the many sheets which, in the negative as well as in the print, generally vary in intensity and color, this picture makes a perfectly harmonious impression.

Najad, in Venice, distinguishes himself by the reproduction of an large ancient map of the world and numerous beautiful views taken in Venice. It is only to be regretted that many of them have been taken with a lens which distorts a great deal. The third in the league is Alinari, of Florence. The pictures of the doors of the Baptismal Church of Florence are masterpieces, but besides these he has exhibited reproductions of the oil paintings of the old masters, Tizian, Lionardo, &c.; these reproductions are of the same size as the originals. Less important are his portraits, and portraiture seems to be the weak point of all the Italian photographers. Not far from him is Angioline, of Bologna, who exhibits pictures with a so-called evening illumination. These pictures are portraits with candles burning in the room; the intention is to convey the impression as if the portrait had been taken at night, but one sees at once that they have been made in daylight.

Cuccioni, of Rome, has furnished gigantic sheets, beautiful pictures of Roman frescoes and Roman architectures. In landscape photography Italy is, in spite of its beautiful scenery, but indifferently represented; the very low price which is paid in Italy for landscapes is probably the reason that only inferior work is made.

Heliography and enamel pictures made in Italy do not deserve notice.

Turning northward we have to notice first Sweden, Norway, and Denmark. The three countries do not furnish much. Buly Muller, of Copenhagen, distinguishes himself by the variety which he exhibits; he has portraits, landscapes, architectures, and photolithographs. J. Peterson, of Copenhagen, deserves also notice for his portraits. Selmer, of Bergen, in Norway, has contributed fine landscapes. The Netherlands do not exhibit much, but have some good artists. Verveer, from the Hague, exhibits some fine still-life pictures in "lichtdruck," which show artistic understanding. Asser's photolithographs are well known already. Kolkou, in Gröningen, has some good landscapes. The Belgian exhibition is splendid; not only is the arrangement excellent, but also the pictures. They are placed in niches on a brown background with black wainscoting. The beautiful carbon prints of the Brothers Zernzel, in Brussels, are the first to attract the attention. Devon, in Brussels, as well as Paes, in Antwerp, exhibits some fine carbon pictures and good "lichtdruck." Interesting are some prints from negatives by Adam Salomon. Strasszack, in Brussels, shows handsome portraits. Neyt, in Ghent, fine photographs of the moon. They are taken with a reflector of nine and a quarter inches diameter, and enlarged. Important are also Tierland's reproductions of oil paintings from originals by Wiertz, and, finally, I have to mention the photolithograph of the Belgian War Department. In my next I shall speak of Germany.

Dr. H. Vogel.

## OUR PICTURE.

We present our readers a picture of rather a novel sort this month, being a series of reductions from carte size character pictures of Missie Fannie Eaton, daughter of Mr. E. L. Eaton, photographer, Omaha, Nebraska. Many who were at St. Louis will remember a few of these pictures being there, and Miss Fannie herself was there in *propria persona*. She seemed just as full of little graceful poses as she could well be, and we suggested to Mr. Eaton that he take her home and practice further with her and give us the

results for the entertainment of our readers. He assented, and in due season we received some fifteen negatives, from which the present selections have been made.

The quaint, cute little poses will amuse any one, and the command over her expression, which the child seems to have, is truly wonderful. We could not show our readers many of them without reducing them, so we adopted that plan. Mr. Eaton has given us permission to sell them, so that they can all be had of card size, in number, and at a price named in the *Specialties*.

The profit accruing from their sales will be devoted to a good object in the interests of all photographers, so we trust they will be liberally purchased.

The negatives were made from the cartes by Mr. William H. Rhoads, Philadelphia, and the prints by Messrs. Schreiber & Son, Philadelphia.

We are sure all will join us in thanks to Mr. Eaton, and to little Fannie, for the pleasure they have given us.

## THE PHOTOGRAPHIC WORLD.

We have a long and interesting letter from Mr. S. L Walker, Poughkeepsie, N. Y., who entered our art in 1841, and passed through an eventful and honorable career as a "shadow catcher." He is now seventy-one years of age, and thinks he is "the oldest photographer." Can any one outnumber him?—Wen a man kant see the faults of his own wurk, kalkilate he will soon sell out on akount of his helth.

The *Milwaukee Monthly Magazine* for January contains some fine woodcuts of the far-famed Devil's Lake (Wis.) scenery, taken from photographs made by H. H. Bennett, of Kilbourne City, Wisconsin. Mr. Bennett secures some most excellent results.

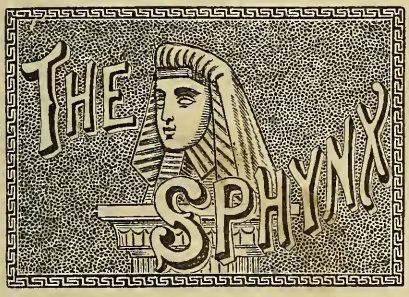
Mr. H. H. Busey, of Baltimore, has added the lower floor to his establishment, which is filled with choice chromos, oil paintings, and fine frames. He will now occupy an entire building of four stories, being by far the most extensive in that city. First-class work did it.

Mr. E. Long, the eminent stockdealer, of Quincy, Illinois, says: "Several years since I sent you a sketch of a box I invented for keeping baths warm by aid of a coal-oil lamp, and you thought so much of it that you had it engraved. If you will find it and call attention to the number in which it was published, you will do all the photographers working in rooms which get cool at night a big service, provided they adopt it. They can make the arrangement themselves at a cost of not over half a dollar, beside the lamp, and can keep silver baths at an *even temperature*, night and day, all winter long. I used it several years in a board shanty, while doing army work. In summer a piece of ice in the box does the same service as the lamp in winter. *No patent* on the invention. I helped quite a number of operators during my Western trip this winter with this invention."

Mr. Long's former useful hints will be found in vol. vii of the *Philadelphia Photographer*.

From a newspaper advertisement of Mr. E. T. Whitney, Norwalk, Conn., we clip the following:

"The time has arrived when, in the achievements of our art, success is no longer a question of experiment and time, but each sitting is a positive success, and the miracles that are daily wrought in the taking of children,—as by a lightning flash,—insures the public against any failure even with the most uneasy child. To obtain these results has taken many years of toil, and the study of books devoted to the advancement of photographic art; conventions have been attended, and every improvement adopted of real benefit to the public. All of which has been attended with heavy cost, and without the rewards that follow in the wake of other business. Hereafter *cash will be required in advance of sittings*. This rule has been adopted by the leading men in our business throughout the country, and is the only rule that will save photographers from ruin. You will see the justice of this upon reflection. Persons have been in the habit of trying an artist, taking his time and chemicals, and getting proofs without remuneration, making some frivolous excuse of hair or dress, as a reason for not liking their picture."




Sphynx is unusually full of queries this month, which we trust will be well attended to in our absence.—Ed. P. P.

A friend of mine, seeing that granular and stippled effects are all the rage just now, put a handful of sand in his cyanide bottle and fixed with it. He says the effect is fine; caused by washing off the same, it may be. I have not seen a resulting print yet. T. S. H.

*Answers.*

In answer to brother B. in July number of the Sphynx, of a sure, good, and simple ferro varnish, let him look in the January number of the *Philadelphia Photographer*, 1873, on page 11, formula by Alfred Hall, for the best ferro varnish I have found. It is O K. I have used it with success since I received my January number. P.

*Queries.*

I wish Sphynx to solve me this. I have been using Newton's acetate of lead wash after fixing. I notice in putting prints in the lead it does not turn *milky*, but remains clear as water, as when first made up. But my prints, after being ready for mounting, have a white scum all over them, which does not come off with any amount of washing with cotton and soft water. It dries on the prints, makes the albumen look *dead*, and destroys the *brilliancy* of the picture. I make my lead as Newton's formula directs in every particular, and wash my prints in four waters before putting them into the lead solution.

I use ice water or melted ice for the lead, and wash the prints in hard water.

I tried nitrate of lead with the same results. I bought a good article of acetate and nitrate of lead of J. H. Tesch & Co., Milwaukee.

I prefer some one to answer the above who has had experience with the lead washing. Will Mr. Newton do it?

Permanency.

1st. How can I prepare the sulphantimoniate of sodium?

2d. What, besides the above, will give a red or brown color to negatives, acting as an intensifier?

3d. When I place in my negative bath a plate coated with collodion, that is salted with iodide of ammonium and iodide and bromide of cadmium, what are the chemical changes that take place?

4th. Is there any good reason for using iodide of lithium in preparing collodion?

A Poor Student.

I am a *young* photographer, only been established in business two months, and have thought of many questions that I would like to ask Sphynx. Will she be so kind as to tell me—

What are the terms for admission of a pupil into the Photographic Department of the Cooper Institute?

Can pupils enter any month or season, and stay as long as it suits their convenience?

What are the necessary expenses and outfit?

How is instruction imparted? Is it by actual work in a studio?

Does kaolin (pipe-clay) always come in fine, dirty powder, and is that stuff put in a disordered silver bath *to purify it?*

I shall be greatly obliged to receive answers to the above.

E. W. W.

I want to ask Sphynx what she would do for a bath when it refuses to coat a plate smooth? No difference what length of time it is left in the bath, it comes out greasy and streaky just as though it had not been in a sufficient length of time.

Occasional.

I have found that when sensitizing collodion with bromide of potassium, though the solution would be perfect in the alcohol, when the ether was added the potassium would precipitate in a fine white powder. Can this be prevented, or does it do so for everybody?

I have frequently been troubled by dark stains on my negatives between the film and the glass, generally commencing at the lower edge and extending upward in streaks, or, in extreme cases, extending as a dark stain over the whole negative. By looking through the plate after removal from the bath, they can be faintly seen, but become stronger after development. They do not affect the making of positives, as they are invisible from the film side by reflected light.

My negative bath is 40 grains, slightly acid, and my collodion equal parts of ether and alcohol, sensitized with iodide of ammonium, 10 grains, bromide of cadmium, 4 grains to the ounce.

Again, with the same bath and collodion I fail to get sufficient intensity to make a good negative, while at other times it has worked splendidly for months.

I have made new bath, new collodion, and new developer, but with the same results—weak and thin negatives.

If Sphynx can throw any light on these subjects, he will confer a favor on

A New Mexico Photographer.

We have a card negative taken with a lens of about 6-inch focus. Suppose we enlarge it by the Edwards or any other process to life-size, will not the features be in bad proportion? Is it in practice found necessary to increase the focal length of instruments in taking small negatives for enlargement? Y & S.

On page 208 of the July number of the *Philadelphia Photographer*, the writer of an excellent article on "Collodion" says of iodide of ammonium: "It contains four times as much iodine as the same weight of iodide of cadmium."

As we on the San Joaquin Plains figure it (the atomic weight of iodine being 127, of ammonium 18, iodide of ammonium being 1 part of each = 145), iodide of ammonium is $\frac{127}{145}$, or 87.5 per cent. of iodine.

The atomic weight of cadmium is nearly 56, iodine as above 127, iodide of cadmium $127 + 56 = 183$.

This salt therefore contains $\frac{127}{183}$, or 69.4 per cent. of iodine.

On page 54 of Linn's *Landscape Photography* we are told to add to a negative bath "a few drops of carbonate of silver solution."

In this climate carbonate of silver is insoluble; but then we have had no rain since the first of April. When it does rain, we may succeed in dissolving carbonate of silver; but heretofore our efforts to do so have been fruitless. Y. & S.

I have tried every way that the *Philadelphia Photographer* and *Mosaics* tell of cleansing a bath and in making new ones for negatives and ferrotypes for the last two years, and asked a number of first-class photographers, and read a great many photographic books, and cannot find out what causes the white scum on the plates sometimes after filtering. It is a heavy coat on the edges, and streaks and spots on the middle. By dipping a number of plates it works off, and at other times there is a thin film covering nearly the whole plate. When the bath works clear from scum, and gets so that it needs filtering, it is sure to have the scum on the plates after filtering. It makes no difference which side of the plate is up in the bath, the scum is the same. I use filtering paper from the stockdealer and filtering cotton; both leave it the same. The cotton I cleanse with pure alcohol, and rinse with pure water. I use Anthony's collodion. Can any one in the Sphynx tell me the cause and how to get rid of it without spoiling so many plates? Mr. Davison says, "Ask questions," so I thought I would ask this, as it is the worst thing that bothers me. J. M.

## MAGIC LANTERN MATTERS.

Now is the time to get ready for your winter exhibitions. Nothing gives so much delight as a magic lantern, and for small exhibitions nothing is so satisfactory and portable as Mr. Marcy's sciopticon. *Good* slides should be selected.

Please refer to our article on this subject in our last October number. We repeat what we say there, and save your time now.

Whatever you do, get good apparatus and good slides, and then you will have pleasure.

Please refer to our advertisements for further information.

## THE N. P. A.

HOW YOU CAN HELP IT ALONG.

We are glad to see that many of the returned photographers, who were at Buffalo, have given their local newspapers the impressions received at that grand photographic entertainment. This is a capital idea. It will awaken interest in the Association and thus help it forward greatly, for the day *must* come when every photographer in the land who desires progress will unite himself with this grand institution.

Several of the gentlemen we allude to have sent us copies of their letters, and we are glad again to see so much honest praise of the National Photographic Association and the work it is doing. Mr. G. W. Edmondson, of Plymouth, O., says the lectures were of infinite value to the photographer; and as to the Exhibition, "With beautiful music alternately from a fine orchestra and orchestron, beautiful pictures of lovely women and brave men, and living models of the same around us, and friends everywhere, was it any wonder that we had a glorious time?"

Mr. J. G. Vail, of Geneva, N. Y., says: "Such conventions, for the interchange of thought and experience, comparison of ideas and practice, and examination of theories, cannot but tend to the advancement and elevation of photography, and are highly creditable to those who love their profession sufficiently to make these efforts to excel in it."

In the Poultney (Vt.) *Bulletin*, Mr. F. M. Rood says: "The Association has done more in advancing the art than its founders ever dreamed it could do."

The Wakefield (Mass) *Citizen*, whose correspondent, we think, is Mr. C. F. Richardson, says, among other good things about the N. P. A.: "The attention paid to the proceedings of the Convention, and the critical study devoted to the pictures on exhibition, marked the desire for progress and improvement which had brought the members together. . . . Viewing the Exhibition as a whole, the Association has cause for congratulation on the progress of photography during the past four years, a result largely due to this organization."

Photographers of the United States, is not this Association worthy of your *best* support?

## MOSAICS, 1874.

Photographic Mosaics for 1874 is under way, and will contain an extraordinary amount of useful matter from a variety of authors, on a great variety of subjects. It will excel any of its predecessors, and in order that all who desire may contribute to the usefulness of it, we invite short items from such for its pages. *Short* and *practical*, is the standing injunction.

We hope to issue the work by November 25th, and advertisements should reach us not later than the 15th. Please take notice.

# Editor's Table.

To Correspondents.—If any seeming neglect occurs to you, please do not consider it intentional, but owing to the absence of our editor-in-chief, who is now taking a tour, which he trusts will benefit his readers, and also brace him up for a second ten years in your service. We ask your patience until his return.

The Annual Exhibitions.—That of the American Institute, New York, will open September 10th, and continue until November 15th. Goods received from September 1st. Send for regulations to John W. Chambers, Secretary, or Charles Wager Hull, Esq., General Superintendent, New York.—The Cincinnati Industrial Exposition will open September 3d, and continue to October 4th. Send for regulations to W. W. Taylor, Esq., Secretary, Cincinnati, Ohio, and exhibit of your best work.

We have specimens of their work from Messrs. George Moore, Seattle, W. T.; C. H. Hudson, at

Taylor's Gallery, St. Paul; E. B. Headley, Wilkesbarre; F. M. Spencer, Mansfield, Pa.; J. Lee Knight, Topeka, Kansas; H. C. Milice & Bro., Warsaw, Ind.; and E. P. Libby, Keokuk, Iowa, all of which show progress, and all of which we should like to notice at length would space permit.

Outdoor Work.—Mr. W. E. Bowman, Ottawa, Ill., sends us groups "No. 1" and "No. 2" of the members of the National Photographic Association, taken at Buffalo, which he offers to mail to any address on receipt of twenty-five cents each. *En route* to Buffalo he made some fine stereo views, which he offers to the trade. He also sends us a portrait of little "Dodie," a sweet little girl just learning to turn out her toes.—Mr. L. C. Fosnot, Keosauque, Iowa, sends us a specimen of *his* outdoor work, in the shape of a fifteen pound catfish.—From Mr. John Reid, Paterson, N. J., we have the finest series of large views we have seen for a long time, of bridges, buildings, locomotives, viaducts, cattle, &c., made with *Morrison lenses*, which Mr. Reid thinks "are good enough for anybody." The one of a large locomotive for the Baltimore & Ohio Railroad is particularly well done for so difficult a subject. The definition is admirable. —Mr. George Moore, Seattle, W. T., also sends us some stereographs of his city, Puget Sound, &c. —From Mr. A. A. Baldwin, Ludlow, Wis., we have also some stereos of romantic scenery, very excellent in all respects.

A triple water-lily was found a few days ago by Mr. Frank Davis, Worcester, Mass., and he sends us a stereograph of it. Orders for copies will be filled promptly. It is wonderfully pretty.

Mr. F. G. Weller, Littleton, N. H., has issued a very pretty catalogue of his views and "treasures," with a photographic cover, and a map showing the route to the White Mountains. The whole thing is very tasteful.

Mr. H. J. Rogers, New Haven, Conn., has issued a new edition of his work, *The People's Guide to Photography*. He had it on sale at Buffalo, and gave twenty-five cents per copy to the National Photographic Association treasury.

An album of "The Tyler-Davidson Fountain," Cincinnati, Ohio, containing eighteen views of the fountain, statuary, &c., has been published by Mr. Charles Waldack, of that city, and is very attractive and beautiful.

The National Photographic Association Badges.—Those members of the National Photographic Association who could not go to Buffalo, may obtain 1873 badges by sending a three cent stamp, on a directed envelope, to W. Irving Adams, Esq., 4 Beekman Street, New York, or to Edward L. Wilson, Philadelphia.

Mr. G. Gennert, importer of Dresden albumen paper, New York, has removed to No. 428 Broadway, New York.

In our report of the exhibitors at Buffalo we overlooked the firm of B. French & Co., of Boston, who made a very fine display of Voigtlander and Darlot Lenses; also, some beautiful photographs, 11x14, by Warren & Heald, Boston, as samples of the working quality of these lenses. Also Alfred Freeman, Dallas, Texas, and R. B. Lewis, Hudson, Mass., who exhibited some nice portrait work.

In the communication from the Grosvenor Library of Buffalo, the secretary's name should have been Alexander J. Sheldon, and not Alex. J. Hubbs, as printed in our report.

We would call your attention to the advertisement of *Fitzgibbon's Patent Adhesive Picture Mounts* for ferrotypes, gems, and all styles of plate pictures and small photographs. It has been found to be very useful by those using it, in saving time, &c., and is manufactured by A. M. Collins, Son & Co., Philadelphia, and sold by all stockdealers.

Pictures Received.—Some very fine portraits, cards, and cabinets, from Mr. S. Sellech, San Francisco, Cal. Some nice stereoscopic views of coral, &c., from J. C. Moulton, Fitchburg, Mass. A card and stereoscope view of the "Little Trout Fisher," from J. C. Mills, Penn Yan, N. Y. This is a picture of a boy seven years old, who, by means of his nose, caught a trout weighing eight pounds. The boy had a *hooked* nose.

We acknowledge the receipt from the author of a very neat little book, entitled, "Lake George," by S. R. Stoddard, Glen's Falls, N. Y., giving full details of all places of interest at this beautiful resort. Price 50 cents. He also sends us a catalogue of his stereoscopic views of Lake George and surroundings, embracing a large variety of views.

Burned Out.—The fire fiend has again been amongst the craft, and we have to chronicle the destruction of two photograph galleries by it, Capt. W. S. Johnson, Springfield, Mo., and G. W. Bellinger, Cobleskill, N. Y. We trust that they may soon be in full working order, and reaping the benefits of an increased patronage of their friends.

THE

# Philadelphia Photographer.

Vol. X. NOVEMBER, 1873. No. 119.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## EDITORIAL CORRESPONDENCE.

II.

PARIS, October 6th, 1873.

SINCE writing you last I have been travelling around night and day, seeing and learning much which I trust will be of service to all of my readers, if I am enabled to return to them in due season. I cannot now go into details, for my memorandum-book is stocked with matters which are for future use, and which are worthy of more careful attention than I could give in a hastily written letter like this. I will, therefore, merely give you a running account of myself since I last wrote you, and when I am back at my desk, will confess "the whole story."

*Berlin* was a Mecca to which I had long wanted to journey, and it gave me peculiar pleasure to reach that city of good photographers and good friends. I had scarcely stepped from the railway cars into the station ere I was met by my good friend Vogel, whom so many of you have seen, and I at once felt at home.

It was from Berlin, many of you will remember, that a few years ago, a few cartes-de-visite were sent to America, of very peculiar style and of excellent quality. They were shown to several photographers, who were ravished by them, and then in large lots they were imported and sold all over the country as "Berlin cards." From that time and on account of those pictures, many of you will agree with me, that American photography was "awakened out of sleep" and *took a fresh start.* A new era was begun then and most rapid strides were made, each annual exhibition of the National Photographic Association showing (and still showing) that there were more and more in our own country who could not only equal, but excel the famous Berlin cards. And now, strange to say, the Berlin photographers are quite as much ravished over some of the work which goes to them from America. Thus we are *working together* for the advancement of our art, a state of affairs which is very cheering indeed, to those who strive to bring forth such effort by means of the literature which is published to that end. These facts, of course, have had the tendency to excite a very warm feeling in the hearts of the Berlin photographers towards their American coworkers, and I am, therefore, not so weak as to suppose that the demonstration tendered me by the Berlin Photographic Society at their special meeting held while I was there, was for me, or for anything that I had done, but intended as an evidence of good feeling towards American photographers through me their humble representative. It gave me pleasure unalloyed, to say to the large body present, that to them

American photography owed much, very much, and that we rejoiced over the good feeling and the generous rivalry existing among us. It could only result in good, and progress was sure to be certain so long as it existed.

It was the realization of a dream to meet those whose names had so long been familiar to me, and to visit their studios and see them work.

As to the latter, one might easily imagine himself in one of our home galleries, for there is very little difference in any way. The skylights are the same; the formulæ have been published over and over again in these pages, and all that *I* could see different was *the men who did the work.* Of course, they cannot be transferred to our home studios, but their work can be studied, and if you understand it, there is no reason in the world why you should not make just as good work. Oh! how I wish I had the means to place in every studio in America, a set of the beautiful pictures from the negatives made by Loescher & Petsch for the Vienna Exposition; and some of the exquisite works of Ernst Milsher, or the splendid cabinets and cartes of Julius Schaar and Wachter! It would act like a subsoil plow upon photography in America, and make everything new and fresh and strong. Very true we have many, very many excellent photographers, whose work is not excelled in all Europe, but we want many more such, and that is why I write as I do.

But I must not stay in Berlin too long now. I have many valuable hints from there to record which shall be given you and illustrated in detail, in the future.

From Berlin Dr. Vogel and I proceeded to the great "show" at Vienna. I have already given you a list of the exhibitors there, and will save the hints I collected for future use also. I had the pleasure of considerable time with Mr. Fritz Luckhardt, whom you all know by his excellent work, and a new picture from his studio will appear soon with our magazine, together with drawings of his studio, and other valuable information. A review of the best things I saw at the exposition will be given soon.

From Vienna Dr. Vogel accompanied me to Venice, Italy, where we had several pleasant days together, and visited the immense photographic establishment of Signor Charles Naya, which shall be described in full at another time. It was Dr. Vogel's intention to accompany me all through Italy, but being, like myself, an editor, and therefore, in a measure, a slave, some hitch in his work at home called him back, and I had to go on alone. For two weeks I wandered among the art treasures of Italy, visiting Florence, Rome, Naples, Puteoli, ruins of Pompeii, and climbing Vesuvius. Then to Leghorn, Pisa, Milan, up Lago Maggiore to the Alps, and then through the passes of that wondrous region, over the icy glaciers, up the snowy peaks, and across the lakes, down into the deep defiles, until tired with travel I am back in this beautiful city, where to day I start on the rampage for more novelties for the readers of the *Philadelphia Photographer*.

I have been so busy that I know but little of what is going on among you. I trust all is at peace and quiet with you, and that soon after this reaches you I shall be safely back at my post, ready as ever, with new strength, to join you in any good scheme for the progress and advancement of art. Now the whirl of travel is over, and I sit me down in this quiet room and review the past fifty days, I ask myself the question, "*What* have I seen?" and in true Yankee style the answer comes in the form of another query, "*What have you* NOT *seen?*"

Truly yours, as ever,

EDWARD L. WILSON.

## CONCERNING SHAW AND HIS $300,000 PATENT.

BY W. H. SHERMAN.

THE late Convention of the National Photographic Association was cheered and somewhat enlivened by the presence of the distinguished member from Bridgeport, Conn., Jehyleman Shaw.

Why, Mr. Shaw *is* distinguished there are two or three reasons. One is that he prosecuted Edward L. Wilson for libel, and got a verdict for several thousand dollars against him. Another is that he claims to

"have invented a new and useful process for recovering gold and silver from the washings or waste solutions of photography."

His presence cheered and enlivened the Association for the reason that he wanted from the members two or three hundred thousand dollars! What association would not be cheered by such a demand? A committee appointed to confer with Mr. Shaw reported that, in their opinion, "it would be far better for us, as individuals, to make some amicable arrangements with Mr. Shaw *for the use of his patent*, than to take the chances," &c. A most judicious report. The committee further recommended that Mr. Shaw's "proposition be considered by all." Acting in accordance with this recommendation the first question which naturally arises is, *must we use his patent at all?*

Mr. Shaw distinctly disclaims the use of salt and muriatic acid as precipitants in his patent process, and admits that they were known in the art, in connection with such solutions, before the date of his invention. He further set forth in his specification that the problem to be solved required the treatment of all the solutions *together*, or the treatment of the "*mixed washings*." That there may be no doubt as to what his improvement is, he states that "the discovery of the capacity of the *sulphuret of potassium* to effect this result enabled me to accomplish the new object aimed at." What is the new object aimed at, and how is it accomplished? This is precisely what has been invented by Mr. Shaw, and precisely what his patent covers. He says it is "the recovery, in a practically successful manner, of *all* the silver from *all* the waste washings and spent solutions of the photographic establishment."

He does not claim the use of common salt in such solutions as *that* will precipitate the silver from. He does not claim the use of muriatic acid or protosulphate of iron. He says he discovered, in the course of his investigations, "that these precipitants, viz., salt and muriatic acid, would not serve the desired purpose at all." If these precipitants were previously known, as Mr. Shaw admits, and if the object of his invention was to furnish something better, in consequence of their alleged inefficacy—to furnish an agent to accomplish something which he says the well-known precipitants would not do *at all*, does it not follow that any one may use those old precipitants in any way he chooses, provided he is willing to put up with such work as they will accomplish? According to Mr. Shaw's own showing, his invention would have been of no account, if he had not discovered a *better process* for recovering gold and silver from the solutions than the use of salt, muriatic acid, or protosulphate of iron. It was this alleged better process that he patented.

He claims "that the use of the other precipitants named would cost more than the silver to be recovered was worth." Now, who does not know that this claim is utterly unfounded? What photographer, with any fair knowledge of his business, does not know that after saving what silver and gold he can readily save by the use of salt, muriatic acid, and protosulphate of iron, that the balance is not worth the trouble of saving? I say (with these and one or two others equally well-known) no other precipitants are needed to save all the silver and gold from photographic solutions. What was the use then of Mr. Shaw's invention? Is it possible that any court will hold, in the light of Mr. Shaw's specification and claim, that any one is not free to use those precipitants (disclaimed by him) in the solutions for which they are adapted? Mr. Shaw's inventive genius was directed to solutions of a "*totally different character*" from those that these old-fashioned agents would operate upon. He says, in his specification, salt and muriatic acid will not answer at all. Now, that he has discovered that sulphuret of potassium will do what salt and muriatic acid would not, does he therefore claim that we must not use salt and muriatic acid? That seems to be the gist of the argument. Will any court sustain such a claim?

The courts might possibly hold that his patent covers every *sulphuret* in the universe that will precipitate "*all* the silver from *all* the waste washings" when "mixed," and in consequence of being so *mixed* had become of such "*a totally different chemical character*" that the known precipitants would not save the silver and gold without

costing "more than they were worth." But how they could without stultifying themselves hold that precisely such solutions of silver and gold, as had been long known in the arts, may not be treated as such solutions were treated previous to Mr. Shaw's discovery without infringing his patent, is certainly beyond my comprehension. To my mind it would be like deciding that the use of iodides would have been an infringement on the bromide patent. The courts went to the utmost limit to which seeming judicial favoritism could be stretched in the notorious bromide question. The bromide of silver had been previously used, as also the bromo-iodide, in the daguerreotype; and the use of bromides, as well as iodides, in collodion would have followed just as certainly as night follows day. It was *sure* to be used in collodion. The patent was a *grab* on photographers, and it was finally, after fourteen years of outrageous annoyance, decided that the introduction of bromide into collodion did not "*rise to the dignity of an invention.*"

Now similarly, as I understand it, the saving of silver and gold by methods usually employed owes nothing to Mr. Shaw. Beginning with the washings of the prints, whoever thought of using *sulphuret of potassium* to precipitate the silver from the free nitrate washed from the prints? Every photographer that I know of adds common salt, and precipitates the chloride. Can this operation infringe Shaw's patent? Next in value is the silver from the developer. How is that saved? Let it remain in the sink. The silver is precipitated without any process or precipitant except the developer itself. How can that be an infringement?

Discarded negatives, both unfixed and varnished, are thrown into the lye, by which the films are softened so as to be easily removed by a swab, producing a sediment rich in silver. I fail to find any infringement here.

The hyposulphite solution may be decomposed, and all the silver precipitated by the use of oil of vitriol or sulphuretted hydrogen. Gold is precipitated from the toning-bath by the old method, by the use of protosulphate of iron.

Mr. Shaw claims royalty from all the photographers in the United States on the strength of the last reissue of his patent, dated July 9th, 1872. No infringement can date back of that. But we are not "mixing" our "waste washings" so much as we were. I am not aware that I am using his process, but processes which he distinctly disclaims and discards. Moreover, I recovered silver and gold from solutions in exactly the same way more than twenty-five years ago, and have learned nothing new, nor done anything differently, in consequence of his "discovery."

Let it be granted that Mr. Shaw's patent is valid, and that it will be sustained by the courts, as Mr. Bell thinks it will, and which I presume is probable, what does it cover? Why, *simply the use of sulphuret of potassium in recovering silver and gold from waste photographic solutions.* This is all he claims (besides his machine), and for this he wants two or three hundred thousand dollars. I was told that Mr. Shaw, or some one for him, stated at Buffalo that his patent covered all methods of saving silver and gold from photographic waste solutions. If this is the case, it must be shown that Mr. Shaw not only invented the *process* in question, but that he also was the originator of the *principle* or idea of saving silver and gold from such solutions. But methods of saving silver from the waste photographic solutions were well known and in public use in this country four or five years prior to the first date of Shaw's patent. Therefore, I suppose his patent can only cover the particular process set forth in his specification. In fact, one of the methods published in this country in 1858 was so much like his patented process as to produce identically the same result, viz., sulphuret of silver; the *effect* being the same, and the *principle* being the same, nothing, I take it, remains to Mr. Shaw but the *means*, to wit, sulphuret of potassium.

Any invention entitled to a valid patent, must "not have been in public use for more than two years prior to the application" for a patent. And if contested, it must then be shown to be an improvement on known methods. One of the methods, published in 1858 (more than four years

prior to the patent in question), for recovering silver from the waste photographic solutions, was by means of *sulphuretted hydrogen;* and I am not aware that sulphuret of potassium has any advantage over this agent, as it is readily prepared, easily used, and cheap. How many hundred thousand dollars the sulphuret of potassium is worth to photographers, more than this other known agent, would at least be interesting to know.

According to Mr. Bell's written opinion, Mr. Shaw's patent may be valid, and be sustained by the courts. Let it be so. Unless I am much mistaken it can cover nothing that we need to use. Unless it covers what was well known and in public use more than four years prior to the first issue of his patent, then we may freely use common salt, muriatic acid, protosulphate of iron, oil of vitriol, and sulphuretted hydrogen, without paying Mr. Shaw a dime.

Now I have complied with the suggestion of the committee, and have "considered Mr. Shaw's proposition," and the "amicable arrangement" which I propose "*as an individual*" to make in relation to "the use of his patent" is, *not to use it at all.*

MILWAUKEE, Sept. 1st, 1873.

## Hints from the Record of an Artist and Photographer.

BY JOHN L. GIHON.

ONCE more I have the satisfaction of working beneath a skylight, and have exchanged the inconveniences of a dark-tent for the appurtenances of a well-regulated room. The fever, which drove us all so precipitately from the city, was in its turn driven away by the approach of cold weather. Yellow Jack and Jack Frost are mortal enemies; the one must be regarded as the destroying, the other as the beneficent, angel. The latter always conquers; and in this instance, when he made his victory, our entire population rushed back with the same haste that had marked its egress.

In the year 1871, in Buenos Ayres, when the death record noted fourteen hundred per day, a cold snap providentially interfered, and in a week's time no case was to be heard of.

I am tempted to speak further of the skylight to which I have just referred. It is remarkable for being one that does not leak. I believe that glass roofs have been the bane of my photographic existence, and even now I am haunted by visions of the pots, pans, and kettles that I have repeatedly had to use in many of the rooms in which I have worked. I well remember the many devices to which I have resorted, and I can call to mind but one that proved efficient. In that case I had two glazed sashes, separated but by a few inches. Bedding with putty, coating with white lead, and smearing with paraffine or shellac were all in turn failures, and I know of one light that I used to have refitted about once a year. Why, then, is this one to which I am now referring so thoroughly waterproof? The theory is a very simple one, and the key to the secret is, *substantiality.*

You must know that in this country houses are constructed on a very different principle than characterizes those of your cities. All of them are built in the form of a hollow square, and the courtyard that is thus left in the centre is, in the case of the finer residences, covered over by a glass roof. This practice, of course, makes skylights very plentiful indeed. Now although we have no cartloads of snow to scrape off, or destructive hailstorms to crash through our panes, we still are subjected to even as great an annoyance; any mariner who sails in these latitudes or any resident of these South American cities can tell you of the fearful winds that prevail at certain seasons of the year. We call them "pamperos." They come upon us without much notice, generally last but a few hours, or a day or two at most, but in the meantime they pick up and carry off every movable thing.

The flimsy wooden sashes that are used by the majority of the North American photographers would be whirled away at once.

The situation is understood and provision made for it.

Our skylight is erected at an angle of about forty-five degrees. It is quite large, at least twenty-five feet long by fifteen in

height. The glasses that inclose it are here known as double thick, and resemble the French plate that is used in the United States for the most delicate purposes. They are large, at least twenty inches in width and thirty by the other measurement. Then they are laid upon heavy *iron* bars, that are so fashioned that two inches of putty binds each plate of glass in position. The lower edges are cut into a point and plenty of lap given. The surfaces being smooth and all being well fitted, the old talk of "capillary attraction," &c., has no chance of coming into play. It is a great comfort to be able to leave one's place in the evening and not be obliged to remove every article into what we deem a secure situation. With us the most valuable instruments or the most costly furniture can be left with perfect impunity in the places in which they were used.

Then again, I must speak of the roofs of our buildings. They are made of tiles or large square bricks. These are laid upon light rafters, but are connected and in some instances plastered over with "Roman cement." The result is, that upon the top of the house you have an admirable pavement. Although all of this is fashioned upon a level or with barely sufficient dip to insure a water-drain, leaky roofs are very exceptional. Another advantage gained is in the almost perfect immunity from fire. I scarcely believe that in this city there is the slightest provision against the occurrence of a general conflagration, but in turn I cannot imagine the possibility of such an occurrence. Fires are only used in the cook-shops and kitchens, and sparks from chimneys fall harmlessly enough upon the continued expanse of brick and mortar.

An incident worth recording came to my notice to-day. A messenger was sent to us by the resident of a very extensive "Quinta," or country place, near the city. He brought with him a verbose account of the general appearance of a baby that had died a couple of years since. It detailed the number of lace flounces that ornamented its dress and the color of the ribbons that had been deemed most becoming to it. In the letter there was inclosed a very small, scratched, and generally used-up locket-picture of the *father* of the child. The request was that from this latter we should make a large and finely-finished portrait of the infant. It is not difficult to imagine the first impulse of a photographer upon such an occasion, but then an old and trite adage about "answering a fool according to his folly" came to my mind, and upon the strength of it I immediately undertook the commission for the modest little sum of one hundred dollars. Fortunately infants of four months growth look very much alike, notwithstanding the opinions of fond parents to the contrary, and the substitution of the copy of some other interesting scion would most likely in this instance not only answer every purpose, but would also greatly enhance the reputation attached to the wonderful powers of photography. The result of this little experiment I look forward to with some degree of interest.

MONTEVIDEO, S. A., July 15th, 1873.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*A Simple Albumen Process for Transparencies.—Window of the Dark-room.—An Energetic Alkaline Developer.—The Use of Nitrate of Baryta in the Negative Bath.—Removing Metallic Stains from Negatives.—The British Association.*

*A Simple Albumen Process for Transparencies.*—The especial suitability of an albumen film for yielding fine transparencies, especially where the transparency is required for producing an enlarged negative, is well known to most photographers, and the best processes have been the subject of much discussion of late. A specimen of singular excellence was recently sent to me by a correspondent, Mr. J. H. Martyn, who also communicated details of the mode of producing it, which were unusually simple. The delicacy, gradation, and modelling were equal to anything I have ever seen, and the color was of a very rich chocolate-brown. Altogether the character of the transparency left nothing to be desired. The process is almost absurdly sim-

ple. Here it is in Mr. Martyn's own words: Take—

| | |
|---|---|
| Albumen, . . . . | 1 ounce. |
| Water, . . . . . | 1 drachm. |

Beat up well, allow to settle, and filter the mixture. Coat a well-cleaned piece of patent plate glass, and allow it to dry spontaneously. Then sensitize in a fifty-grain ammonio-nitrate of silver bath, to which a little alcohol has been added. Allow the plate to dry spontaneously and print fully out without development.

A very fine result may be produced without the ammonio-nitrate bath, but the silver bath must in that case be slightly alkaline. A fifty-grain silver bath, with two or three drops of ammonia to each ounce, will give a fine transparency, but the film will not be quite so sensitive as when the ammonio-nitrate bath is used. The hyposulphite bath for fixing should be somewhat weak.

Printing fully out without development secures two advantages—a more complete control over the depth of the picture, as its progress can be examined the same as that of a collodio-chloride picture on porcelain; and the absence of the granular texture often resulting from the reduction of free nitrate in development. As a rule, the general character of a picture printed out is more harmonious than that of a developed image.

I presume that the majority of your readers are familiar with the preparation of an ammonio-nitrate bath. For the benefit of the inexperienced, I may briefly state that it is made by adding strong liquid ammonia to the nitrate solution until the silver is thrown down as a dark precipitate of oxide of silver, and then continuing to add the ammonia until the precipitate is redissolved and the solution is clear again.

*The Window of the Dark-room.*—Colonel Wortley, a gentleman who has given probably more attention to the use of highly sensitive bromide plates than any one else, calls attention to the importance of taking special care to secure the absence of every trace of actinic light in the dark-room when working bromide plates, as in the absence of such care fog is not uncommon, the manipulator often attributing such fog to a defect in the plates. The great error is, he thinks, the practice of using the same kind and amount of colored glass in all conditions of light. He says: "I rarely find any one making due allowance for the varying amount of light in bright and dull weather. I feel sure, from my experience of late, that no permanent window is suitable for use, with bromide plates at all events, for if sufficiently dark to admit of safe working when the outer light is bright, it is too opaque for use in dull weather. But this is easily got over in the following way: Glaze your window with two thicknesses of *pot* orange, and hang two separate curtains of red muslin or very thin red silk in front of it, so that by having each to run separately on rings, either one or both may be pulled across the window, according to the brightness of the weather. This may seem but a small thing, but many of the troubles of beginners with bromide dry plates arise from this cause; and I write for beginners in dry plate work, and for those who have troubles, not for the very clever ones who know everything already."

*A Very Energetic Alkaline Developer.*—I think I have before mentioned to your readers the daring modification made in the alkaline developer by Colonel Wortley, and the remarkable results which may be secured by its aid. The effect of the modification, which consists in using a very large excess of ammonia, is to shorten the exposure in the camera enormously, rendering dry plates as rapid and as perfect as wet plates. I have said dry plates, but I should have said some dry plates, for so far as I know at present it is not equally suitable for all kinds of dry plates. With bromide emulsion plates and gum-gallic plates I have seen the developer tried. Mr. R. Manners Gordon, who is probably the finest landscape photographer in the world, remarked to me that he found gum-gallic plates with this developer in all respects, both as to sensitiveness and excellence, equal to wet collodion and iron development in the best possible conditions. So also with bromide emulsion plates.

An examination of the new formula is somewhat startling. Colonel Wortley employs an eighty-grain solution of carbonate

of ammonia, and the merest trace of pyrogallic acid, ten drops of a ninety-six grain solution being added to half an ounce of the strong ammonia solution, from which it will be seen that the amount of carbonate of ammonia in the developer is one hundred and twenty times that of the pyrogallic acid employed. Colonel Wortley states that he has employed a saturated solution of carbonate of ammonia with advantage; but that eighty grains to the ounce constitute a convenient strength, it being difficult to dissolve a greater proportion. For general use the complete developer would stand as follows: Four drachms of an eighty-grain solution of carbonate of ammonia; twenty drops of a twenty-grain solution of bromide of potassium; ten drops of a ninety-six grain solution of pyrogallic acid in alcohol.

Another peculiarity of this developer is the fact that the differences between long and short exposure may be to a considerable extent ignored by regulating the development. I have seen two halves of a stereoscopic plate exposed, one twenty seconds and the other five seconds, and after development no perceptible difference existed between the two, that which had short exposure simply receiving in compensation a more prolonged application of the developer. As carbonate of ammonia is a somewhat troublesome substance to deal with, being of very uncertain constitution, one or two hints on the subject may be useful. There are various carbonates of ammonia, but the commercial article, when fresh and in good condition, is a sesquicarbonate, and is soluble in something less than three parts of water at 60° Fahr., so that a solution of double the strength used by Col. Wortley might be obtained. If warm water be employed, a decomposition ensues, issuing in a precipitate of bicarbonate of ammonia, which is much less soluble, leaving monocarbonate in solution. As the bicarbonate is not the active agent in development, and as the commercial carbonate rapidly passes into the bicarbonate when exposed to the air, it will probably be found wise, on obtaining a supply of the proper article, to make a saturated solution at once, keeping it closely stopped when not in use; the precipitate of bicarbonate may be disregarded.

*The Use of Nitrate of Baryta in the Negative Bath.*—A professional portraitist, Mr. Henderson, a short time ago recommended the addition of nitrate of baryta to the negative bath as conferring certain very decided advantages, and as I have heard good accounts of it since, it may be interesting to state the matter in detail. The addition of ten grains of nitrate of baryta to the bath is stated to give increased vigor to the negative, to permit the use of a neutral bath without any risk of fog, to shorten the exposure, and to render pinholes an impossibility.

Nitrate of baryta was proposed some years ago for addition to the bath as a means of precipitating traces of sulphide of silver from impure samples of nitrate of silver. Sulphate of silver as a cause of pinholes and zigzag markings on the plate was pointed out by my friend, Dr. Vogel, and he found that nitrate of baryta for precipitating the sulphide of silver acted as a remedy, and that the presence of the baryta in the bath promoted intensity. Unfortunately, it was found to cause a precipitate of sulphate of baryta on the plate when it came into contact with the sulphate of iron in development, and this precipitate was equivalent to fog. Mr. Henderson has ascertained that the semi-opacity caused by this deposit at once disappears on varnishing the plate, so that he presents his boon to the public without a drawback.

*Removing Metallic Stains from Negatives.*—A correspondent recently mentions an experience worth putting on record, as although the capable and careful photographer will as a rule avoid having stains, it is well to be able to get rid of them when by some accident they do occur, which is sure to be upon a negative otherwise excellent. My correspondent says:

"The other day, having taken a negative, I found, after washing it, that it exhibited metallic stains on the surface of the film. As I did not consider these stains would interfere with the image itself, I proceeded to intensify with diluted tincture of iodine. After having washed the plate well, I held it up to the light to ascertain whether it was sufficiently dense, and was much surprised to find that the metallic stains had

disappeared. Other (not metallic) slight stains still remained, though much reduced. I have since repeated this method of removing stains from the all but varnished negative, with similar results."

*The British Association.*—The British Association for the advancement of science has just held its annual meeting. At one time photographic communications of great interest were common at its meetings; but this year the photographic interest was almost *nil*. M. Janssen explained how he intended to photograph the transit of Venus, and Dr. Gladstone exhibited and explained some photographs of fluorescent substances; but these and some minor matters were all the papers appertaining to photography.

## Tweedledum and Tweedledee!

BY W. HEIGHWAY.

THE vexed question of the supremacy of the artist and the dark-room man, just now receiving such serious discussion, has, it appears to me, been treated in the most extreme manner by the partisans on the one side and the other. I should like to have seen a nearer approach to the real state of affairs than has yet been quoted. The article calling up the discussion, which appeared in the *Year-Book of Photography for* 1873 (London), instances a great artist who produces a splendid photograph. His operator is left entirely out in the cold, for the author says, "Why, Robinson (the name of this much-abused slinger of developer) could no more have made that picture, than he could have jumped over the moon. To Brown (the superlative artist), to Brown alone, was the credit due."

And then the author proceeds to point a moral, that rare and secret formulæ, wonderful collodions, and magical baths, have nothing to do with this beautiful work, and winds up by "running a muck" with one of his wonderful specimens of invective of the "bosh" order. Now, I am a mild man and would sacrifice anything for the sake of peace and quiet, but on behalf of my brethren of the dark-room, I venture to place on record a tiny remonstrance against this sweeping appropriation of all the credit to the artist.

Mr. A. Pearsall in his answer made a good beginning, and would have stated the case perfectly, had he not claimed too much for the operator. None of those who have taken part in the discussion seem to view the ordinary operator as one possessing some amount of artistic knowledge; either painting him as the finished artist, *with a knowledge of chemical manipulation;* or an individual who is not fit to put his nose outside the door of his gloomy sanctum. These are the extreme views, and no doubt Anderson means that when the operator approaches the artist in skill he ceases to be classed among the dark-room brotherhood. This appears to me to beg the question, as there are few operators who work entirely in the manipulatory department; therefore the argument, on a basis which does not really exist, is a vain and unprofitable one.

I cannot see that "Critic's" wail, in the last number of the *Photographer*, helps us much on this subject. As protesting against the manipulation ignoramus of an artist, it is clever enough, and leads us to the belief that *in many matters of gallery routine the artist should defer to the operator*, but as there are few photographic artists (if more than one or two), who know nothing of the trials and troubles of the dark-room, it does not appear that he has done much to throw light on the subject.

Let the artist do his part well, and the operator be an intelligent aid to him, and let the question, "Who shall be first?" cease to trouble the mind of the profession. In the proper discharge of their several duties, each will have quite enough to feel proud of without endeavoring to bag all the game.

"Act well your part, there all the honor lies."

## THE N. P. A. FUNDS.

WE are glad to see that a number of the members of the National Photographic Association *still have faith in it*, and that they have responded promptly and liberally to the call of the Executive Committee both for the advance dues and for the assessment found necessary to remove the debt of the Association. It is hoped that the remainder will soon follow suit, and that the Executive Committee can soon announce the Associa-

tion out of debt and with good prospects for future usefulness. This is much to be desired. There is a big work ahead, which, if prosecuted, will surely result in great good to every member of the Association. Here in Europe (where we are now writing), our Association is considered the grandest thing for photography that ever existed. Wherever we have been we hear the most complimentary remarks concerning it. The report of the last meeting *fills* the photographic periodicals in England almost from week to week, and is translated into French, German, and Dutch. Thus you see good seed is being scattered in all directions.

It is none too early either for us to begin to prepare for the great Centennial Exhibition in 1876, and we hope to see the display of photography there far, far ahead of this at Vienna. Keep up your band of union—our splendid Association—and we will accomplish *all!*

## THINGS NEW AND OLD.

BY R. J. CHUTE.

### CHEMICALS IN COLD WEATHER.

Every photographer in our Northern latitudes is in some degree familiar with the difficulties incident to the approach and continuance of cold weather. As our frosty mornings come upon us we are surprised to find with chemicals that worked well the day before great difficulty in getting sufficient exposure, with what appears to be an excellent light. And unless we have become aware, by close observation, how sensitive our chemicals are to the changes of temperature, we will hardly be led to right conclusions as to the cause of the difficulty. We will be apt to charge the bath and collodion with freaks of which they are entirely innocent, and will probably institute some renovating process to cure the evil.

But it should be remembered that a chilly atmosphere, if not lower than 60° Fahr., will be likely to affect the working of the chemicals, and there is nothing to which slow working should be so readily attributed as cold, if the temperature will at all justify such a conclusion.

It should be observed, however, that slow working is often attributable to the light, though the conditions may be such that one might suppose there could be nothing to desire in that respect. But it is well understood that a clear blue sky is the poorest light we have. We may be at work to-day with a thin veil of white clouds in the sky, giving a beautiful light, easily worked and very rapid; to-morrow morning we will have a clear blue sky and a bright, beautiful morning; but on going to work we will find that where we gave from fifteen to twenty seconds to-day, we must then give from thirty to thirty-five, and if to this be added a falling of temperature, we will find a still greater difference.

It becomes us, then, to watch carefully the changes that affect our work, and apply the *right* remedy, instead of proceeding with measures that will only make matters worse. The effects of cold are slow setting of the collodion, so that the plate should not be dipped so soon after flowing; slow coating in the bath, producing a thin, blue-looking film; a very long exposure, and, with the best that can be done, a negative with harsh contrasts, little detail in the shadows, and lacking the most important requirements of first-class work. Now let us see what can be done by the use of a little heat. If the bath is not very large, and *time* is important, take a plate, the largest the bath will carry, of double thick glass, clean and heat it as warm as the plate will bear, either by the stove, over a gas flame, or register, and dip into the bath; this may warm it sufficiently. If it be a glass bath, or one that the outer surface may be easily exposed, an excellent method is to heat a slab of soapstone and lay it against the outside of the bath. A very large bath may be managed more easily by drawing off a portion of it at least, and heating it. I would caution any one against placing a glass bath near a stove or other heating surface, unless the precaution is taken to cover the portion not filled with the solution, as breakages from this cause are very common.

The bath should not be heated hot; a temperature of 75° or 80°, just sufficient to remove the chill. Too much heat will cause flatness or fog. After the bath, warm

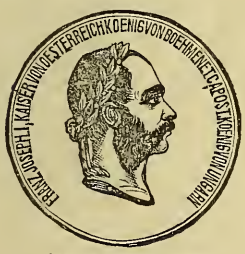
the developer, and we will see a surprising change for the better.

During the cold weather, the chemical room should be kept at as even a temperature as possible. It is the most important part of the gallery in this respect, and unless it be properly attended to, and the chemicals kept warm, either by directly heating them or keeping the room warm, uniformly good work in cold weather is an impossibility.

## THE PHOTOGRAPHIC MEDALS AWARDED AT VIENNA.

PHOTOGRAPHY at Vienna was amply rewarded, every possible kind of medal offered having been awarded to one branch or other of our art, namely, for progress, merit, taste, and for the co-operator. Of this last class, Mr. Elbert Anderson was the only one who received a medal in America.

FIG. 1.




Obverse of all medals.

FIG. 2.


Reverse of all medals for merit.

FIG. 3.


Reverse of all medals for progress.

FIG. 4.


Reverse of all medals for taste.

FIG. 5.


Reverse of all medals for co-operators.

It will be remembered that these medals, although bearing different names, are *all of the same value*, and only have a different designation to show in what particular respect the productions of the successful competitor excelled. We have prepared a list, which see below, of *all* the persons connected with photography who received awards. We have made notes on the pictures at Vienna, which we shall reserve until our next, owing to the lateness of the day on which we are able to post this from Vienna. We congratulate our American friends and regret that there are not more.

The cuts below give a very correct idea of what the medal designs are like, except as to size, the size being much larger. The medals are all of bronze.

DIPLOMA OF HONOR.

Société Francaise de Photographie in Paris; Josef Albert, hofphotograph in München; K. k. Militär-geographisches Institut in Wien; Kaiserl. russische Expedition zur Anfertigung der Staatspapiere in St. Petersburg.

MEDAL FOR GOOD TASTE.

W. Kurtz, New York, with mention of progress; H. P. Robinson and N. K. Cherrill, Tunbridge Wells, with mention of progress; Mrs. Julia M. Cameron, Freshwater Bay, Isle of Wight; Walery (Graf Ostrorog), Paris, Rue de Londres 9 bis; M. B. Verveer, Haag; Loescher & Petsch, Berlin, with mention of progress; Franz Hanfstaengl (Edgar Hanfstaengl), München; Bernhard Johannes, Partenkirchen, Baiern; Robert Eich, Dresden; Victor Angerer,

Vienna, with mention of progress for landscape work; A. Perlmutter, Vienna; Dr. J Szeklóy, Vienna; Otto Schöfft, Vienna and Cairo; Karl v. Jagemann, Vienna; Carl Koller, Bistritz in Siebenbürgen.

PROGRESS MEDAL.

E. & H. T. Anthony, New York; Muybridge, San Francisco; C. E. Watkins, San Francisco; Thomas Houseworth & Co., San Francisco; E. Amand-Durand, Paris; E. Baldus, Paris; Dubosc, Paris; Harrison, Asnières; Jeanrenand, Paris; Lefman & Lourdel, Paris; A. Lumière, Lyon; A. Merget, Lyon; Ch. Reutlinger, Paris; Rousselon (maison Goupil), Asnières; Carlos Relvas, Oporto; Vianelli Brothers, Venice; Karl Naja, Venice; Alinari Brothers, Florence; Budtz, Müller & Co., Hofphotographen, Copenhagen; Mr. C. J. Asser, Amsterdam; Géruzet Brothers, Brussels; Adolph Neyt, Ghent; Belgische Kriegsdepôt, Brussels; Société royale Belge de Photographie (J. Fierlandts), Brussels; E. Bieber, Hamburg; A. Braun, Dornach; Theodor Prümm, Berlin; Gustav Fritsch, M.D., Berlin; A. Leisner, Waldenburg, Schlesien; J. B. Obernetter, München; Rathenower optische Industrie-Anstalt (Emil Busch), Rathenow; Fr. Bruckmann, München; Ludwig Angerer, Vienna, with mention of good taste; Franz Antoine, Vienna; Baldi & Wurthle, Salzburg; Wilh. Burger, Vienna; Julius Gertinger, Vienna; Ant. Goldmann, Vienna; Karl Haack, Vienna; Dr. Hermann Heid, Vienna; August Kohler, Vienna; Julius Leth, Vienna; Josef Löwy, Vienna; E. Rabending, Vienna; L. Schodisch, Vienna; G. Sebastianutti, Trieste; Freih. v. Stillfried, Vienna; Joh. Graf Wilczek, Vienna; Maximilian H. Fajans, Warsaw; Carl J. Bergamasco, St. Petersburg; Johann Mieczkowski, Warsaw; Moraitis Peter, Attica; P. Sebah, Constantinople

MEDAL FOR MERIT.

Scovill Manufacturing Company, New York, apparatus; Wm. R. Howell, New York; James Landy, Cincinnati; Henry Richman, Cincinnati; Charles Bierstadt, Niagara Falls; Henry Rocher, Chicago; Henschel & Benque, Rio Janeiro; Douglas Wane Marshall, Isle of Man; T. M. Brownrigg, Dublin; Frank Haes, London; F. Beasley, Jr., London; London Stereoscopic and Photographic Co., London; Colonel Stuart Wortley, London; Abel Lewis, London; A. Darlot, Paris, optical apparatus; A. Dauphinot, Rheims; Ferrier & Lecadre, Paris; Fleury-Hermagis, Paris, lenses; G. Fortier, Paris; Franck de Villecholle, Paris; Geymet & Alker, Paris; Jules Girard, Paris; J. Lachenal, Favre & Co., Paris; E. Lamy, Paris; J. Levy & Co., Paris; Cosquin, Paris; Mathieu-Deroche, Paris; Comte G. de Roydeville, Paris; L. Vidal, Marseilles; Gsell, Saigon; J. F. Camacho, Madeira; Observatorium zu Lissbon; Alviach & Co., Madrid; Zaragozano, Madrid; Laurent, Madrid; F. Charnaux, Genf.; Richard & Baumeister, Genf.; Täschler Brothers, St. Gallen; Täschler-Signer, St. Gallen; Peter Guidi & Ritter Franz Panizzi, San Remo, Porto Maurizio; Jacob Rossetti, Brescia; Anton Perini, Venice; Anton Sorgato, Venice; Witwe Isabelle Cuccione, Rome; Heinrich Verzaschi, Rome; Eurenius & Qvist, Stockholm; G. Joop & Co., Stockholm; W. Lundberg, Stockholm; Selmer, Bergen; L. Szacinski, Christiana; Hansen, Schou & Weller, Copenhagen; E. V. Harboe, Copenhagen; J. Petersen, Copenhagen; F. S. von Kolkow, Gröningen; Ministerium der Colonien, Hague; Walter Damry, Lüttich; Josef Maes, Antwerp; F. Reinecke, Hanover; Aug. G. Stender, Lamspringe; Ferd. Beyrich (Alb. Bergmann und Rud. Freyschmidt), Berlin, chemicals for photography; Gustav Schucht, Berlin; Reichard & Lindner, Berlin; J. C. Schaarwächter, Berlin; Otto Lindner, Berlin; Hugo Danz, Berlin; Carl Brasch, Berlin; Moser, sen (Julius Moser), Berlin; Heinr. Schnaebeli, Berlin; Hermann Rückwardt, Berlin; Romaine Talbot, Berlin; Gustav Schauer, Berlin; Ludwig Harnecker, Wriezen a. O.; Heinrich Keller, Frankfort a. M.; C. Bornträger, Wiesbaden; Aug. Kampf, Aix-la-Chapelle; Gustav Völkerling, Dessau; Karl Daüthendey, Wurzburg; Johann Laifle, Regensburg; Herm. Krohne, Dresden; Rommler & Jonas, Dresden; A. Kotzsch, Loschwitz bei Dresden; Schulz & Suck, Karlsruhe; Franz Richard, Heidelberg; G. M. Eckert, Heidelberg; Carl Holzamer, Worms a. R.; Joh. Verlag Nöhring's, Lübeck; Benque & Kindermann (Conr. Heinr. Kindermann), Hamburg; G. Koppmann & Co. (G. Koppmann), Hamburg; Carl Damann, Hamburg; George Wolf & Co. (George Wolf), Hamburg; Auguste Colas-Baudelaire, Strasburg; Friedr. Peter, Strasburg; J. F. Schippang & Co., Berlin; M. Gemoser, Munich; F. Fessler's (successors to A. Stegmann), Berlin; Dr. Oidtmann, Linnich bei Aachen; Dr. Stein, Frankfort on Main; Beer & Mayer, Graz; Leopold Bude, Graz; Tom Burato, Ragusa; August Angerer, Vienna; Alois Beer, Klagenfurt; Beczedes, Vienna; Friedrich Bopp, Innsbruck; A. F. Czihak, Vienna; M. Frankenstein & Co., Vienna; C. H. Haufler, Vienna; Max Jaffe, Vienna; W. F. Jantsch, Reichenberg; Rosa Jenik, Vienna; G. Klöcs, Vienna; Franz Knebel, Vienna; Oskar Kramer, Vienna; Karl Kroh, Vienna; Karl Matzner, Vienna; August Red, Linz; J. B. Rottmayer, Trieste; Julius Schindler, Vienna;

Johann Schopf, Vienna; N. Stockmann, Vienna; Guido Trapp, Brünn; Othmar v. Turk, Vienna; Josef Ungar, Vienna; F. Friedrich, Prague; Hubert Ginzel, Reichenburg; Franz Largajoli, Meran; Emil Lotze (Verlag von Moser), Bozen; A. Moll, k. k. Hoflieferant, Vienna; Johann Reiner, Klagenfurt; Awit. Szubert, Krakau; Trapp & Münch, Vienna; Karl Diwald, Pesth; Edouard Ellinger, Pesth; Franz Kozmata, Pesth; Michael Rupprecht, Oedenburg; Franz Veress, Klausenburg; Wohlfarth & Lovich, Ofen; Heinrich Denier, St. Petersburg; Carl C. Röttger, St. Petersburg; D. Birkin, Kijew; Ferdinand Kloch & Meletius Dutkewitsch, Warsaw; Kostka & Mulert, Warsaw; Mann, St. Petersburg; Roudneff Brothers, Daguestan; Aug. Kollas, Corfu; Von Szathmary, Bukarest.

HONORABLE MENTION.

W. Schwind & E. Krueger, New York; Leon Van Loo, Cincinnati, Ohio; Emil P. Spahn, Newark, New Jersey; Unnevehr, New York; Joaquim Insley Pacheco, Rio de Janeiro; George Leuzinger, Rio de Janeiro; A. Riedel, Minas Geraes; Charles A. Ferneley, Scalford Road, Melton Mowbray; George Hare, London; Lachlan McLachlan, Manchester; Lemere Bedford, London; A. Bernoud, Lyons; Numa Blanc, Nice; Victor David, Courbevoie (Seine); Dubroni, Paris; Garin, Jr., Paris; A. Liébert, Paris; Geiser, Algiers; C. H. Luttringer, Paris; Salleron, Paris; Rocchini, Lisbon; Fernandes Souza, Porto; E. Julia, Madrid; E. Otero, Madrid; Almagro, Murcia; Ortiz, Seville; Karl Cru, Geneva; A. Gabler; J. Ganz; F. Jungmann, Basil; F. Richard Sohn, Zurich; Vittorio Besso, Biella, Turin; Angelo Della Croce, Milan; Ritter Franz Heyland, Milan; Peter Bertoja, Venice; Prof. Ludwig Borlinetto, Padua; E. Beehles & Co., Rome; Angiolini & Co., Bologna; Michael Schemboche, Florence; Ludwig Lamarra, Naples; George Sommer, Naples; Achille Mauri, Naples; Anton Montagna, Lecco; Agostino Lai Rodriguez, Cagliari; Vincenz Seveso, Milan; C. G. W. Carleman, Stockholm; H. Osti, Upsala; O. Wiklund, Westeras; K. Knudsen, Christiana; A. C. B. Lönborg, Copenhagen; L. Nielsen, Copenhagen; S. Nielsen, Slagelse; C. Petersen, Copenhagen; V. Tillge, Copenhagen; Binger & Chits, Harlem; Francois Deron, Brussels; Ladislav Straszak, Brussels; Carl Suck, Berlin; August Utecht, Berlin; Richard Falk, Berlin; Ernst Lucke & Fischer, Berlin; Rud. Hoffmann, Berlin; Adolf Schwarz, Brandenburg a. H.; Mondel & Jacob, Wiesbaden; Fr. Wilde, Gorlitz; E. Voelkel, Neisse; O. v. Busch & Co., Hirschberg, Schlesien; E. Kiewning, Greifswalde, Pommern; Schultze, Brunswick; Arno Kersten, Altenburg; G. Böttger, Munich; Christ. Schildknecht, Fürth; Hans Hanfstaengl, Hofphotograph (Karl Aug. Teich), Dresden; Freimund Edlich, Dresden; Wolf, Constance; Ruf & Dilger, Freiburg, Baden; A. Brauneck, Mentz; H. Greiner & Co., Apolda; R. Hennig, Berlin; W. Champés, Hamburg; George Rotter & Co., Dresden; Gabriel Wörlein, Berlin; J. C. Grabe & Co., Kiel; Johannes Herzog, Bremen; George Wachsmuth & Co., Dresden; Beute & Stolze, Hamburg; M. Rommel, Stuttgart; Max Auerbach, Vienna and Arad.; Antonie Bogner, Vienna; Eder & Novicki, Vienna and Lemberg; B. Henner, Przemysl; Josef Hoffmann, Vienna; Edmund Kozics, Pressburg; Ig. Krakowsky, Vienna; L. Mioni, Trieste; A. Mutterer, Vienna; Heinr. Eckert, Prague; Rosenbach, Lemberg, Xaver Massak, Vienna; Karl Skutta, Wr. Neustadt; Ed. Trzemesky, Lemberg; Friedr. Wendling, Vienna; Ernestine Hölbling, Vienna; Antonio Jelaska, Ragusa; G. Jelinek, Vienna, albumen paper and passepartouts; Thaddeus Immler, Bregenz; Karl & Rudolf Mahlknecht, Vienna; Prof. A. Mayssl, Brünn; Giuseppe Popovich, Spalato; Franz Reisinger, Hernals; Julius Schleegel, Reichenberg; Franz Scholz, Vienna; Gio. Batta Unterweger, Trient; Albert Doctor, Pesth; Béla Gévay, Pesth; Ignaz Schrecker, Pesth; Ant. Simonyi, Pesth; Max Stern, Trentschin; Schivert, Hermannstadt; Marnitz, St. Petersburg; Michel P. Nastjukoff, Moscow; Baron Johann Mannteufel, Riga; K. Schultz, Dorpat; Conrad Brandel, Warsaw; Hilfs-Comité des Caucasus; Administration des ponts et chaussées, Caucasus; Ingenieur-Verwaltung des Caucasus; Bahnverbindungs-Comité des Caucasus; Barkanoff, Tiflis; Alex. & Jos. Kova, Beyrut; D. Michailides; Giuseppe Berinda, Crete.

CO-WORKERS' MEDAL.

Elbert Anderson, with W. Kurtz, New York; Huguenin, Chef des travaux photographiques à l'ecole des pons et chaussées, Paris; Carl Fischer, with Fr. Bruckmann, Munich; Carl Quidde, with Gust. Schauer, Berlin; Hans Hartmann, with Loescher & Petsch, Berlin; W. Becker, with Theod. Prumm, Berlin; C. Schwier, Berlin; Julius Adam, Ludwig Fröschle, Anton Meier, with J. Albert, Munich; A. Beyersdorff, with Carl Kroh, Vienna; H. Zinsler, with J. B. Rottmayer, Trieste; Kl. Langer, with Dr. J. Szekely, Vienna; Turk, with E. Rabending, Vienna; C. Schilhabel (Mariot) im k. k. Military Geographical Institute, Vienna; C. Schierer, with A. Moll, Vienna; J. Beck, with A. v. Jagemann, Vienna; W. Perlmutter, with Adèle Perlmutter, Vienna; Edm. Violand, with Fr. Bopp, Innsbruck; G.

Scamoni, in der kais. russ. Expedition zur Anfertigung der Credit-papiere, St. Petersburg: Laroche, with P. Sebah, Constantinople.

## A DOZEN EXQUISITE PICTURES.

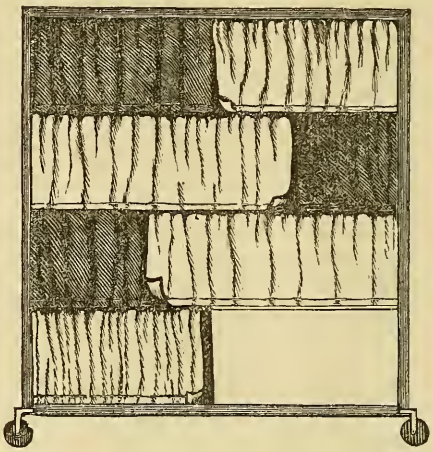
*Loescher & Petsch's Display at Vienna.*

In a rather secluded place at the Vienna Exhibition, neatly but plainly framed, hang twelve photographs from 11 x 14 plates, the entire display of Loescher & Petsch, Berlin, Prussia, and the "best twelve" pictures there. They secured two medals to their talented exhibitors, and they are certainly worthy of them, for they are exquisite *works of art.* They show several varieties of pose, lighting, and style, and some of them are of groups, but the most of single figures. It will not be forgotten by many photographers of America that to the card pictures of Loescher & Petsch, imported into this country and eagerly sought for as studies, the progress made in American photography was in a great measure due. Hoping for a similar result in larger work, we have arranged with the artists named for the sale of this "*best twelve*" in America, at a remarkably low price, considering their quality. The entire set will be expressed to any address for $30. A few sets are on hand now and may be seen at our office. Parties ordering by mail will have good prints, as they are *all* good, being printed by Loescher & Petsch in Berlin, in their best style. They will double the attractions of any studio, and as studies are simply beyond price.

## A USEFUL SIDE SCREEN.

While in St. Louis, a year ago or more, in the studio of Messrs. Cramer & Gross, we saw a very useful contrivance used as a side screen for modifying the light on the subject. It consisted of a frame of the size and height of an ordinary background frame, mounted on castors as shown in the figure. From side to side two rows of heavy iron wire are stretched. On one row white cloth is hung and on the other black cloth, the one back of the other.

Now it will be seen that if less light is wanted, the screen is so placed to the source



of light as to intercept it, and the black screens are drawn, and *vice versâ* if more light is needed. Or the effect may be modified to any degree simply by arranging the cloth screens to suit, or the cloth may be pushed aside altogether or in part, above or below, just as you please, or according to the object you have in view.

It is one of the handiest screens we have seen for a good while, and will be easily understood by reference to the drawing.

## TO PREVENT BLISTERS.

To the Editor of the Photographer:

After reading your *holiday number* of the *Photographer*, I find that not one of the many speakers and writers at the "Buffalo Convention" could give a sure cure, or rather preventive, of blisters. I have myself tried all the remedies there proposed, with only partial success. I tried alum and sometimes had yellow prints; but I look upon alum in connection with "hypo" as a very unsafe mixture if permanency of prints is regarded. The reason is obvious, since alum contains sulphuric acid often in a free state.

For the benefit of your readers, let me state my experience and my remedy. Until about two years ago blisters troubled me rarely. About that time it occurred to me

that I could hasten the elimination of the hypo from the prints by following the cook's maxim or rule for freshening salt fish, which is, to place the fish in water, skin upwards to permit the denser brine to sink down. I therefore kept my prints in the washing water face upward or porous side downward. I soon found that my prints were rarely entirely free from blisters, but attributed the evil to other causes, and tried all the "cures" I heard of unsuccessfully, as stated above. Reflecting upon the subject and noticing how bubbles formed on the prints as they lay in the water, I came to the conclusion that the cook's rule must be wrong, that as the salt (or hypo) came in contact with fresh water, the less dense solution so formed would naturally escape upwards, to say nothing of the formation of gases as suggested at Buffalo by Mr. Hall. Suffice it to say, that I immediately changed my "tactics." For the last five or six months I have not allowed my prints to lie in water face upwards except for a brief examination. I take them one by one out of the fixing bath and immerse them in fresh water, and as I have to economize water, change them in the same way each time from one dish into another. The consequence is, that though using the same paper and working the same way, I have not seen a blister since.

This remedy is certainly simple and harmless. I will not trouble you with my theory on the subject, but hope that my brother artists will try it and report results.

Allow me to say in conclusion that while I acknowledge the "N. P. A." a great institution for those who can avail themselves of its benefits, yet a live journal like the *Photographer* is of vastly more importance to the whole fraternity, since all can avail themselves of it and be benefited by the instruction of its pages. Let both be sustained, but if either must fail, let it not be the journal.

J. R. S.

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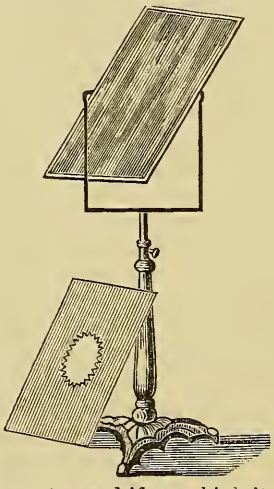
North & Oswald, Toledo, Ohio, have sent us a package of very attractive stereo views made by Mr. North. They represent street scenes, groups, &c., and evidence careful and experienced manipulation.

## Device for Vignetting in the Camera and Screen Combined.

BY WM. H. KIBBE.

As dodges are the order of the day, I will add my mite to the list, that is if you think it worthy. It is used for vignetting in the camera and as a screen for softening the side- and top-light. I use a frame covered with tissue-paper, fitted in a frame of iron-wire, so that it will play and can be used at any angle; it is fitted in the standard of a head-rest. I have another frame covered with cardboard, with an oval opening, and painted a suitable color, for a vignetter; they both fit in the wire frame, and can be changed in a moment. I send you a sketch



of the apparatus, and if you think it worthy of a place in the Journal, you are at liberty to use it, that is, if it don't conflict with any patent. I use for the frames display cards of (played out) insurance companies, the iron work cost fifty cents, so you see it has the merit of cheapness anyway.

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A full attendance of the members of the Boston Photographic Association is requested on the evening of Friday, November 7th, at the studio of Mr. J. W. Black. Matters of interest to operators will come up for action. By order of

J. W. Black,
President.

J. H. Hallenbeck,
Secretary.

## GERMAN CORRESPONDENCE.

*The Vienna Exhibition—German and Austrian Photographers.*

Amongst all the non-Austrian States Germany has the largest and most varied representation; it has one hundred photographic exhibitors, twice as many as Paris. When we compare the last French exhibition with the present one we are struck with the prevalence of a new branch of photography, the "lichtdruck" (light-print). Through the exertions of Albrecht, of Munich, this process passed in 1868 from the state of experiment to practical importance. Six lichtdruck establishments are represented in the German department of the Vienna Exhibition, and there are as many more which are not represented; their number increases daily. It is scarcely to be hoped that the lichtdruck will supplant the silver print, for so far the silver print by far surpasses the lichtdruck in quality; and even if the latter should yield equal results the manipulations would be too troublesome where it is necessary to make but a dozen pictures. When an edition of thousands of copies is required the fineness of the silver print is no longer necessary. For reproductions, studies, technical drawings, maps, representations of objects from natural history, pictures of less delicacy will suffice, and here it is where the new process is of incalculable value. The Vienna Photographic Association has multiplied by this process all the plates which have been taken of the exhibition. Obernetter, of Munich, is making them; and, indeed, he has succeeded so admirably that most people believe them to be photographs. But not only in Germany flourishes the lichtdruck. We find it in Holland, Belgium, Austria, England, Sweden, and Russia, and even in Turkey; in Constantinople it is practiced by the photographer Sebah. Another new and interesting process, the Woodbury process, is but slimly represented. Bruckman, of Munich, who introduced this process in his large establishment, is the only one in Germany who exhibits Woodburytypes.

The finest lichtdruck pictures are exhibited by its inventor, Albrecht; particularly his enlargements attract attention. They show a depth and brilliancy which almost surpasses the enlargements on silver paper. Albert makes enlargements in a peculiar manner; he coats a sheet of paper with chromate of gelatin, and exposes it directly in the enlarging apparatus. The paper is washed, and he prints afterwards from the so-exposed gelatin film. A sheet will stand about twenty-five copies, which is generally a sufficiently large number.

I hear that Albrecht is at present making experiments about combining lichtdruck with printing in colors, and the indefatigable zeal of the man leads us to expect interesting results. Carbon-printing is not nearly so well represented as the lichtdruck; even after the improvements made by Johnson it does not seem to gain headway. If the latest improvement, made by Marion, will lead to its more general introduction, remains to be seen. My experiments with Marion's process were not successful. The only prominent exhibitor of carbon prints is Braun, of Dornach. He exhibits copies of the drawings of the old masters, and reproductions of the paintings in the Louvre and in the Vatican. Braun also exhibited a number of landscapes; these, however, were destroyed by the fire of the Alsatian House. The other printing processes, as heliography and photolithography, are but sparingly represented in the German exhibition; another branch, however, flourishes. I refer to the burnt-in pictures on porcelain by Leisner, of Waldenburg (a city which has very large porcelain factories). Leisner exposes them in a great many different ways. Portraits, landscapes, sculptures, flowers, bank-notes, we find represented on porcelain. The flower-pots with burnt-in landscapes are very handsome, so also the Egyptian vases with Egyptian views. His burnt-in portraits are certainly the finest in the exhibition. Stender, of Lamspring, exhibits also photographs on porcelain; amongst these there are ornaments in gold copied from drawings, which have been converted into gold and transferred to porcelain.

But I have to select what first strikes the eye, and these are the German portraits. This branch will flourish so long as human vanity exists, and the speculation in it will

always be a profitable one; for whoever speculates on human frailties will succeed better than he who builds on human virtues. We have in Germany about 10,000 portrait photographers, whose productions, however, are not all suitable for exhibition, but we miss, amongst those who exhibit, some of the best and most advanced in this branch. Milster and Wigand are not represented. But one firm excels above all others; I mean Loescher & Petsch. Their productions are so well known in America that it is scarcely worth while to refer to them especially. Loescher & Petsch exhibit a number of genre pictures of large size (10 x 12); the ideas are of a very plain character—a group around the fireplace; a lady examining an album; another reading, or winding up a clock; in short, nothing which we would call a striking motive, and still with what excellent taste have they been executed. Those who generally exhibit pictures of still-life forget what is necessary to make a finished picture. I saw in America a splendid still-life picture, an old bookworm studying an old volume. The face and the expression left nothing to be desired, but the man was placed in front of an empty background, which betrayed at once the atelier; and, besides, the floor was covered with a carpet which neither fitted to his costume nor the period which he intended to represent. I saw another picture, boys in front of a garden wall, smoking, but the wall was so white and glaring, and the shirt sleeves of the boys so white, that only by and by one was able to understand what the artist intended to represent. A figure is easily posed; a few accessories, a table, pen and ink, are readily got together, but it is very difficult to arrange these matters in a picture, in such a manner that they harmonize, and that they convey the idea which it is intended to express. I know a picture of a lady writing a letter. The artist who took it placed in the hand of his model a goose-quill—a goose-quill looks much handsomer than a stiff steel penholder—but the quill looked so glaringly white in the picture that it spoiled the effect. The artist substituted now a black penholder; this did not disturb the harmony any longer, but the holder was invisible, and no one who saw the picture would have known that the lady was writing. The artist succeeded finally by dyeing the quill light yellow (with coffee), and now the effect was excellent. This is only an example to show how very careful we must be. Some one will succeed with a still-life picture on the first attempt, but that is only accident, because all the articles selected accidentally harmonize. And many really very handsome pictures are frequently the work of accident. Loescher & Petsch have left nothing to accident; every piece of the picture to the footstool, and the sofa against the wall, is selected with understanding; nothing disturbs; everything is in place.

All these pictures are drawing-room scenes. Loescher & Petsch have, however, with a great deal of tact, done the same as painters generally do. Many feel surprised that painters like to beg old pieces of furniture of centuries back in the Renaissance, or a Rococo style, and with these they surround their pictures. The painter knows very well that his models look much more picturesque amongst these surroundings than amongst our tedious modern furniture. Loescher & Petsch have taken advantage of this, and the results which they have obtained are important hints for the zealous photographer. In this class of work Loescher & Petsch have but two rivals who can approach them; the one is Professor Koller, of Bistritz (Hungarian exhibition), and Schoefft, of Alexandria (Austrian department).

Of other portraitists we have to mention J. Bieber and M. Schaarwächter. The latter distinguished himself by great delicacy in the negative retouch, which leaves the characteristics of the face unaltered. Eich, of Dresden, has also furnished some excellent portraits. They are toned in a manner resembling the Rembrandt style. This style is but little represented in the exhibition. Kampf, in Aix la Chapelle, exhibits some fine pictures in the Adam Salomon style.

Very able portraitists are also Theo. Prum and Schulz & Suck, of Carlsruhe; the latter work in the same style as Loescher & Petsch. As the latest novelty they exhibit some pictures after the manner of Van der Weyde. The way in which Dantz treats

his negatives is peculiar. He takes a portrait before an empty background, and afterwards scratches or retouches a landscape or a room on the negative. It is done with a great deal of skill, but requires a good draughtsman. In enlargements Germany has but little to show; the only ones worth mentioning are those of Hanfstengel of Munich, Schwartz of Brandenburg, and Kinderman of Hamburg. Next we have two collections of the pictures of different nationalities; the one a number of very ugly but very characteristic pictures of Malays, Hindoos, Negroes, Coolies, Chinese, &c., taken directly from nature, and a number of charming pictures in costume, representing the national dress of different nations, all handsome girls of German origin, which the photographer Hanfstengel has selected and posed with much judgment. Hanfstengel's reproductions of oil paintings are also very good. It is peculiar that for all his larger portraits and still-life pictures he takes plain salted paper, as in his opinion the effect is more artistic; only for reproductions of oil paintings he uses albumen paper, the gloss of which corresponds with the gloss of the painting.

Of especial interest are some scientific objects of photographic origin, particularly the splendid microphotographs of Dr. Fritsch, which are unquestionably the finest in the exhibition.

Landscape photography is pretty well represented, but has not as many zealous workers as portraiture. When we compare the number of portrait photographs with those of landscape artists, we find for one hundred of the former scarcely one of the latter. The public buys a landscape picture not so much for the sake of its beauty, but rather as a remembrance of scenes enjoyed, or for the completion of an album of travel, and to the worst picture the preference is often given, provided it is cheap. This is the reason why we see so much trash amongst landscape photography. However, Eckert and Richard, of Heidelberg, have made splendid pictures; so also do the pictures of Volkerling, of Dessau, deserve much praise; and an album by Kolzsch, which gives us very well-selected views of the charming scenery in the mountains of Saxony. The most peculiar kinds of photographs are the panoramic views of cities taken as bird's eye views by Laifle, of Regensburg. He takes views of cities from a high steeple and pastes them together; these pictures are placed in a kind of show-box, and viewed through a lens. The effect is not a bad one.

On a grand scale the reproduction of oil paintings has developed itself. There is scarcely a new painting of any painter which is not carried directly to the photographer. In Berlin we have three large establishments devoted to copying oil paintings; in Munich there are as many. There are several in Dresden and Dusseldorf, and the pictures are shipped to all parts of the world, over land and sea. In the Exhibition, only Bruckmann and Hanfstengel, of Munich, and Schauer, of Berlin, are represented. Besides these we have large establishments devoted to taking the monuments of art of all ages. Nahring, of Lubeck, has photographed all the most important churches, buildings, sculptures, &c., of Germany, Italy, Belgium, and Holland; the pictures are of large size. Boettger, of Munich, takes pictures of old-fashioned buildings; a very rich material is at his disposal for art instruction. It is only to be regretted that these gentlemen take only large-sized pictures, and disdain to make stereos or magic lantern slides. Reinecke, of Hanover, distinguishes himself amongst the architectural photographers by fine interiors, and Ruckwardt, of Berlin, by the magnificent pictures of villas in the neighborhood of Berlin. A peculiar specialty are the photographs of animals by Schnabeli, in which one does not know where photography commences and painting ceases.

Of new material and apparatus we only mention Talbot's permanent silver paper. This is not only of importance to the amateur, who will save himself the trouble of sensitizing, but it is used to a large extent by mechanics and engineers for copying drawings—the same process which Walker, of Washington, has employed for years.

The Austrian exhibition is still grander than the German one. To the Austrian exhibitors unlimited space was granted. They selected it almost at pleasure. They

waited and examined the objects forwarded by other nations, and when everything was nearly ready they commenced to arrange their own exhibition, and carefully rejected everything which could not compete with other nations. The consequence is that the Austrian exhibition is excellent throughout; scarcely anything of medium quality is to be found. Austria is a rich country, and this is of great importance for the development of photography. No matter in how many smaller principalities the state is divided—Slavonians, Germans, Italians, Hungarians, and Poles—who are constantly quarrelling amongst themselves, and who may, sooner or later, lead to a disruption—still the country is rich, and develops in spite of all internal strife in its interior, an almost dazzling splendor, not only in the city of Vienna in its magnificent palaces in the "King" street, but also in works of art. The photographers of Austria have exhibited elegantly; they have saved no expense. In Luckhardt's tableau the frame is a piece of art, and art carving has contributed its part. Only Kurtz, of America, has exhibited with still greater magnificence.

The Vienna photographers are especially conspicuous. Vienna is the capital of the empire, perhaps the gayest city on the face of the earth. Every one who wants to enjoy himself and get rid of his money, travels there. The exhibition of the most showy luxury is considered in fashion, and photography willingly lends its aid to immortalize this display. Every gay Viennese beauty rushes to the photographer to have her latest dress shown off to the most advantage in her picture. Beauty is there in abundance, and the photographer understands it to make capital out of it. The negative retouch originated there; in Vienna it celebrated its greatest triumph.

The art to make a faded princess of the theatre appear twenty years younger, to smooth the wrinkles of the face until they become invisible, is well understood here. Never have I seen such thorough work as in Vienna. However, it is not the question to create works of art, but to flatter the vanity of the gay Viennese.

I was astonished when I saw the ladies of the theatre face to face, whose pictures I had admired in Berlin as beauties. It is said that in Berlin they will no longer engage an actress by her picture, except it is an untouched negative.

In Vienna large-size pictures are the favorites. Enlargements are very plentiful in the Vienna exhibition. The average of these will scarcely satisfy the American; he has been accustomed to see better pictures, for in enlargements the Americans are ahead of all other nations. The most effective pieces in this branch are by Luckhardt and Adele; these two seem to share the glory. Luckhardt seems to be the most fashionable photographer. Adele generally is satisfied with an empty background, while Luckhardt surrounds his persons generally with drawing-room scenery, against which we might object that too often the painted background becomes too prominent. A plastic background would give better effects. Luckhardt takes most generally carte-de-visite sized pictures. His stereos of Vienna beauties are very attractive.

His colleagues, Gertinger, Dr. Seekely, Jagemann, and Turk, have generally exhibited pictures of larger size. They deserve much attention. From an artistic standpoint the works of Jagemann deserve the preference. One sees at once that he understands how to place a head in the most artistic pose, a gift which many able photographers do not possess.

Dr. Seekely exhibits, besides some good pictures, several which good taste should not tolerate. Next to the female heads, we consider most attractive the still-life pictures of Schoeffs. These represent scenes of Egyptian life, with a truthfulness, beauty of arrangement, and technical perfection, that we cannot praise too highly. Masterpieces are the camel driver, boys driving donkeys, Egyptian women carrying water. These need only be painted in oil in order to make a perfect painting. The Austrian exhibition has but few of Schoeffs's pictures. Most of them are in the Egyptian building.

Amongst the landscapes are the views of the Salzburg Alps, by Baldi, of Salzburg, the best, not only excellent panoramic views, but also small landscape views, distinguished by a well-selected standpoint,

good aerial perspective, fine tone and finish. Next to him is Victor Angerer, of Itsch. He exhibited very fine studies. The landscapes of Dr. Heid have more technical value. Artistically better are the landscapes by Botze, of Botzen, but the most interesting are the pictures of Eastern Asia, by Baron Stillfried and Burger, as well as those from the extreme North, of Nova Zembla, by Count Wilzeck and Burger. These views are well selected; the technical execution is excellent. Baron Stillfried has given to his picture a very suitable frame made from bamboo.

L. Angerer and Rabending enjoy in Austria a good reputation for the variety of their work, but the Exhibition does not furnish the proof of it; on the other hand, we have to mention Loewy as a very skilful artist in various branches. He takes good portraits; his landscapes are very fine, architectural views, enlargements, lichtdruck, photolithography, all of superior quality.

Original productions are the still-life pictures by Rosa Jeniks. They betray a certain talent for artistic arrangement, but the pictures fail to express it. Sebastianutti, of Trieste, is the most important exhibitor of lichtdruck pictures. His exhibition is a brilliant affair. Loewy explains the lichtdruck to the public practically.

The Austrian manufacturers have made a very elegant display. Prominent amongst them is A. Moll, of Vienna. Trapp & Münch exhibit albumen paper; a sheet 165 centimetres long by 72 wide (65 x 28 inches) is the most remarkable. Three prints have been taken on different parts of the paper, which demonstrate its uniform quality. O. Kramer exhibits besides stock articles, stereos and stereoscopic pictures. So also Aug. Angerer, who is publisher and dealer in pictures. More in my next about the Austrian and the rest of the Exhibition.

Dr. H. Vogel.

To Clean Silver Stains from Hands, Linen, &c.—First thoroughly wash, and use tincture of iodine; then use concentrated liquid of ammonia. It cleanses most effectually, and there is no cyanide poison.

## ITEMS FROM BOSTON.

Boston, October 10th, 1873.

Messrs. Editors: Having noticed the superiority of the following for the developing of negatives, I send it for the benefit of the dark-room workers (perhaps it is nothing new).

*Stock Solution.*—Dissolve in as small a quantity of water as possible (hot) four pounds of the salts of iron and ammonia; then add one pound white rock candy; when dissolved, evaporate the mass to crystallization (use an evaporating dish); use the same as the ordinary protosulphate of iron. I have seen the most successful results from using the compound as above made, and it is greatly superior to many others.

As the time for porcelain pictures is nearly at hand, I send the following formula, which cannot be surpassed:

No. 1.

| | |
|---|---|
| Plain Collodion, . . . | 1 ounce. |
| Chloride of Magnesium, . . | 3 grains. |

No. 2.

| | |
|---|---|
| Nitrate of Silver, . . . | 8 grains. |
| Nitrate of Uranium, . . | 1 grain. |

No. 3.

| | |
|---|---|
| Citric Acid, . . . . | 2½ grains. |

For toning, the sulphocyanide of ammonia bath is fine.

| | |
|---|---|
| Water, . . . . . | 10 ounces. |
| Sulphocyanide of Ammonia, . | 120 grains. |
| Chloride of Gold, . . . | 2 " |

I notice a new photographic album for the use of galleries; it is made by that veteran in photography, A. C. Partridge. The album, holding from one to three hundred pictures, is just the thing for exhibiting specimens, and large numbers will undoubtedly be sold. Also, that Messrs. Benjamin French & Co., of this city, have just received their fall stock of photographic requisites for the holidays, among which we notice a splendid assortment of new and elegant styles of frames, photographic chairs, &c., &c.

I must not forget to state that chloride of calcium is now generally used in the Eastern galleries, from one-half to one

grain to each ounce of collodion; the finest detail and middle tint is preserved by its use.

I will state for the benefit of those who have never used the sulphocyanide of ammonia toning bath, that they should read Dr. Vogel's remarks on the effects produced, viz., first yellow, then purple, to a deep blue, &c.

No more at present.

VOX.

## WRINKLES AND DODGES.

TO REDEVELOP A FERROTYPE.—Make a five-grain silver solution—five grains to one ounce of water—and flow just as you would a negative, until you get the result you want, and wash, and it is all O. K. It is a good thing for ferrotypists on the baby question. It may be old. I have used it two years or more.

J. H. BLAKEMORE.

*A simple way to point a pencil* for retouching to a needle point:

After the pencil is almost pointed with a sharp knife lean your pencil almost flat, with the point upon paper or card-board, and keep moving it from you, allowing the point to slant and file upon the paper; raise back, and repeat until you have the needle point, when it is in an excellent condition to retouch with.

H. C. WILT.

I WOULD like to have you publish the following that I have found to be *an experiment worth trying.*

I had an old bath which I had tried in every way to get into working order, but I could never get it to work satisfactorily until I tried the following experiment, and the result was the finest bath I ever worked. I would like to have others try it, and report their experience.

Take an old bath of two quarts, and add to it, first dissolved in about one ounce of water, one-half ounce of cyanide of potassium; shake, and then add one half ounce of hyposulphite of soda without dissolving; shake again until the hyposulphite is dissolved, and then let the bath stand for a few minutes in the sun; then filter, and you will be surprised at the amount of dirt in the bath. After filtering, if possible, let your bath remain in the sun for a few days, but I have worked mine immediately after this treatment.

Work the bath slightly acid, and I think all who try this dodge will find it to be just the thing to remedy an old bath. If the bath is over-iodized and full of alcohol and ether, it will be better to *add* the bath to its equal of water, and boil it down to the original strength of bath, 40 grains to the ounce.

J. K. STEVENS,
163 South Halsted St., Chicago.

UNDER the head of "Wrinkles and Dodges" we have received a good many little things, but never have contributed anything. We now have one item, viz.:

SENDING 8 x 10 PHOTOGRAPHS BY MAIL.—A good many are troubled about packing photographs to send by mail; just put your picture between two back-boards, letting the grain of the wood run lengthwise on one side and crosswise on the other; tie them up strongly, and we will risk their getting broke. It costs about six cents to send a mounted 8 x 10 picture, packed in that way, anywhere in the United States. Carte photographs we tie up in newspaper wrappers; it costs two cents to send a dozen.

CLARK & CO.,
Pittsfield, Mass.

A WORD or two in regard to using Slee's Prepared Mounts. This may be a good "dodge" for many. I pile up my prints, all I have, in the water, then take out and *let drain a little* or shake off the surplus water, lay them face down on a glass, mount one and lay it a little on one side. Mount *and lay on top of that all the rest*, no matter how many you have, or put one hundred or so in a pile; when through mounting scatter them over the table, or stand them up pretty close against the wall. In a warm room or in warm weather, you can roll them the same evening. The cards will not cockle but just a little, *and the prints will not peel up at all.* The reason is, the lower one moistens the back of the upper one, and prevents too rapid drying, while the upper one holds the print of the lower one to its place until it can't get away. This does

away with the very disagreeable way of taking them from the water one by one, wetting yourself and everything around you.

We have used but three thousand of them, and have never had one card peel up when treated in this way.

Let those who would like to clean glass for frames, show cases, windows, mirrors, &c., put a drop or two of ammonia in each ounce of alcohol, and see how much quicker and nicer it can be done. Also use same to clean ferro plates, new or used, and film washed off.

Very respectfully yours,
GEORGE R. ELLIOTT.

*How to Save Paper in Cutting, and a Method of Printing and Mounting Stereographs without Cutting Apart.*—I first mark on the negative where the lower edge of the print is to come under each picture with a diamond, or by pasting on a bit of paper.

I prepare my paper in the following manner: I take a sheet of paper and cut it once in two crosswise, so as to have one piece a little over twelve inches wide, and the other a little over nine, then sensitize. When dry I fold the widest piece in the centre lengthwise, and lay on my glass for cutting, which is about three by six inches, but not quite, in such a manner that the end comes over the fold, and cut the two sides and the end opposite the fold. In this way I manage to get six strips from the piece of about twelve inches by three. The other part of the sheet I fold about six inches from the end, and cut out three more twelve inch strips, then there is a piece left nine by six inches, which I cut into three by six inches, three pieces, which of course must be printed and cut apart to mount.

To print the long strips first put on your gloves, then fold them again by turning the ends, albumen side out, back to the centre of the piece, being careful to have the edges even, and lay under the negative, letting the edge come even with the marks. I print the ends of the paper first, then turn it over endways and print the centre. After printing I cut the prints apart where I first folded it, and I have two stereographs properly put together and trimmed, which can be toned, fixed, washed, and mounted very easily.

In cutting my paper in the above manner I get twenty-one views from a sheet of paper, with no waste pieces trimmed off scarcely. With care this method has worked first rate with me.

Respectfully yours,
FRANK A. MORRILL.

NEW SHARON, MAINE, Nov. 19th, 1872.

## ART STUDIES FOR ALL.

### VI.

(Continued from page 489.)

44. WE have now considered the subjects of form, and light, and shade, the principles of art which specially come into play in the practice of photography. Any diligent student who has the taste, may acquire further knowledge of them if he will, in his daily practice. His success will depend upon his ability to finish what science has begun. We give you the formula. Now put your mind to it and work out the result. Taste will now come in and dictate; the judgment and skill will modify and improve, and *your own spirit* must guide the work of the hands. Now begins that *ideal imitation* for which your previous studies have prepared you.

45. We now come to the subject of expression. Not so much the expression of the face, as the general expression or appearance of the whole picture, everything that gives character to the work. The form, countenance, attitude, &c., must all be treated with reference to expression.

46. Expression is the highest attainment of art, and is both definite and general. It belongs to every part of the work, and stamps its value. It completes the work, and demands the exercise of your greatest abilities and acquirements. First, the outlines, then the light and shade take their part in adding to the expression of your picture, and give beauty to the character of it, but they cannot redeem its defects. You must also consider proportion, which is as great and essential to truth of character as to beauty of form.

47. Fuseli remarks that "expression principally consists in representing the human body and all its parts in action suitable to it." No two faces are alike in form, and the artist who would excel in expression, must understand the physical construction that belongs to the temperament of his subject. You would not pose a large man in some fantastic, dandy position. Neither should you allow a slender, graceful person to stand stiff and erect, without a bit of grace or ease—expression—in the pose.

48. Learn to study people as you meet them, in or out of your studio. When Leonardo da Vinci chanced to see a man with an expression of character that he wished to make use of in his work, he would follow him and study him until he was able to paint his face. So should you study men and women as you see them, and when you observe a good pose or anything to suggest one, *commit it to memory*, to be used as a sketch for future work.

49. Much of the expression of a picture is due to the proper arrangement of the drapery, upon the number, size, and disposition of the folds, for on these depend the grace and beauty of the figure. Large folds, few in number, are better than many small ones, for the effect is less spotty. If the quality of the drapery requires small folds, they should be so distributed as to form a mass equal to one principal fold. Then they must be fully relieved by light and shade, or they lose their effect.

50. Arrange the drapery so as to fit the figure, and not conceal it; vary the size of the folds. Let them appear principally where they are held on by the arms and hands of the figure, and the rest left to fall with ease and simplicity. Arrange the folds to harmonize with the position of the figure, as well as with its proportion. Great spirit and life may often be given to a figure by the direct opposition of lights and shades in the close deep folds, and grace, breadth, and harmony by those more ample and extended. *Study* all these things.



## JOTTINGS FROM THE JOURNAL OF AN EXPERIMENTALIST.

### II.

(Continued from page 220.)

THE nature of my invention consists in producing photographic pictures or impressions upon paper, linen, silk, or other flexible or non-flexible substance, previously prepared for the purpose, without the use of silver.

To enable others skilled in photography to make and use my invention I will proceed to describe it. I first make the following solutions:

No. 1. SOLUTION OF GELATIN.

| | |
|---|---|
| Cox's or other refined Gelatin, . | 4 ounces. |
| Water, . . . . . | 20 " |
| Alcohol, . . . . . | 4 to 6 " |
| Acetic Acid, . . . . | 2 to 4 " |
| Sugar (white), . . . . | 2 to 4 " |

The whites of two or three eggs well beaten.

I pour the 20 ounces of cold water upon the gelatin in a suitable vessel, and suffer it to swell for several hours, when it is dissolved by gentle heat. I next beat the eggs to a froth, and stir this well into the gelatin, after which I boil the mass for a minute or two, bringing it to a boil as quickly as possible. When again nearly cool I stir in the alcohol, sugar, and acetic acid; I also add sometimes a little strong solution of camphor. This solution of gelatin is carefully filtered before using. I next make the following:

No. 2. SENSITIVE SOLUTION.

| | |
|---|---|
| Prepared Gelatin, No. 1, . . | 4 ounces. |
| Saturated Solution Bichromate of Potash, . . . . | 4 to 8 " |
| Hot Water, . . . . . | 4 " |
| Alcohol, . . . . . | 1 to 2 " |

The proportions of the above solution are varied according to the material upon which it is to be used, a porous surface requiring a greater proportion of gelatin than one of an opposite character.

No. 3. DEVELOPING SOLUTION.

A saturated solution of extract of logwood or other suitable coloring material, in equal parts of water and alcohol, or preferably in alcohol alone.

No. 4. Intensifying Solution.

| | |
|---|---|
| Saturated Solution Bichromate Potash, | 1 part. |
| Acetic Acid, . . . . . | 1 " |
| Water, . . . . . | 2 parts. |

Or in other proportions, as the nature of the result seems to require; or

| | |
|---|---|
| Saturated Solution Bichromate Potash, | 2 parts. |
| Saturated Solution Chloride Lime, . | 2 " |

I use the acid or alkaline solution according to the effect to be produced.

No. 5. Bleaching Solution.

| | |
|---|---|
| Water, . . . . . | 1 pint. |
| Chloride of Barium, . . | 60 to 100 grains. |
| Chloride of Lime to saturation. | |

No. 6. Toning Solutions.

| | |
|---|---|
| Sulphuric Acid, C. P., . . . | 1 ounce. |
| Saturated Solution Bichromate Potash, . . . . . | 2 ounces. |
| Water, . . . . . | 1 ounce. |

Or,

| | |
|---|---|
| A.—Sulphuric Acid, C. P., . . | ½ ounce. |
| Hydrochloric Acid, C. P., . . | ½ " |
| Water, . . . . . | 2 ounces. |

In this formula the two acids must be added to each other with great caution, and only little by little.

Or,

| | |
|---|---|
| B.—Oxalic Acid, . . . . | 60 grains. |
| Bichromate Potash, . . . | 60 " |
| Water, . . . . . | 4 ounces. |

Violent effervescence takes place in combining these substances.

Or,

| | |
|---|---|
| C.—Alum, . . . . . | 60 grains. |
| Bichromate Potash, . . . | 60 " |
| Water, . . . . . | 4 ounces. |

I also use the above-named or *any acid* either combined with bichromate potash in certain proportions, or alone, or in combination with other acids, according to the effect I desire to produce. In order to produce a picture with the above material I proceed as follows: I cover the surface to be impressed, either by floating or otherwise, according to the nature of the substance, from one to five minutes upon the sensitive compound, No. 2, after which it is hung up to dry. When perfectly dry it is ready for printing, and must be exposed under the negative from one to twenty minutes, according to its intensity and the brilliancy of the light. In bright sunlight thirty seconds has often proved sufficient, but the time of exposure can only be accurately determined by actual experiment. The progress of the printing can be observed as in silver printing, but only by candle-light or in the dark-room from which all *white light* is *carefully excluded*. When removed from the pressure-frame a distinct impression from the negative should be visible. It is now placed in tepid water, which should be frequently changed, where it is kept for a length of time sufficient to remove the gelatin from the parts which have not been acted upon by the light. The water may be gradually applied hotter, but never so hot that the hand cannot be borne in it. On first putting the print into the water it almost or quite disappears, but will again gradually reappear, and when this is the case, and an image (sometimes having the appearance of a negative with lights and shades reversed) is again visible, clear in all its parts, with no mottled appearance, it is an indication that the process of coloring or development may commence. My method of proceeding is to place all the prints I make in one day in a tank of tepid water, which I change frequently as above directed, and finally leave them in it until next day (which is *not* imperative), when they are all removed to another tank or pan for development. In order to do this take, say 1 quart of hot water, to which add from ½ to 1 ounce of solution No. 3, and when thoroughly and evenly united plunge the prints in one by one, being careful to see that they are entirely covered, and that all air-bubbles are forced from under them. In this solution they are to remain until the image is quite distinct. In some cases they will be quite strong enough in this solution to be toned without intensifying, but ordinarily they have a moderate degree of development. They are then taken separately to another tray for intensification, which may be done in the daylight, and is accomplished as follows: Without removing the whole of the logwood solution, there is poured over them with a

dash from three to twenty drops of solution No. 4, in a sufficient quantity of hot water to cover the prints completely. This is kept in rapid motion until the prints are sufficiently strong, when they are thoroughly washed. If the lights are not brilliant enough at this stage of the operation, or if the picture has been colored too deeply by the above process, I take of solution No. 5 one-quarter of an ounce to one-half pint of hot water (or other suitable proportions according to the nature and extent of the difficulty to be overcome), and flow it over the picture, keeping it in motion until the bleaching action is sufficient. This operation can be repeated until a satisfactory result is obtained. The picture is now removed from the bleaching solution, and brought to the tone required by the application of any of the toning solutions under No. 6. For most purposes I prefer the combination of sulphuric acid and bichromate potash. Three to ten drops of this solution, in sufficient hot water to cover the picture, will be enough to tone an 8 x 10 print. The intense blue tone, which is the general characteristic of the picture previous to the application of this solution, is gradually replaced by a variety of tones, at any of which the action can be stopped, after which the picture is thoroughly washed and hung up to dry.

If, on removing the print from the first washing in tepid water, the lights and shades are reversed, as is sometimes the case, and the after application of the logwood solution does not readily develop it with lights and shades in their proper relation, I proceed as follows: Either before or after the application of the logwood I flow the picture with one drachm of toning solution A in one-half pint of hot water, and let it remain, moving it about until a distinct positive picture is visible. If the logwood has been previously applied the picture will be immediately turned to a bright scarlet color, which in no way affects the after process, which is to proceed (after washing the picture free from the acid) to color and tone as above indicated. It is proper to remark here that after the logwood solution has been once applied all the solutions should be applied in boiling hot water.

Much the best effects will be produced by so doing, and the fine blue tone, which is most desirable before the bleaching solution is applied, is thus more readily attained. It is also best to give the final washing in hot water. It is to be noted that all the operations above indicated, from the mixing of the sensitive solution to the application of the intensifying solution, are to be conducted in what is known to photographers as the dark-room. I do not confine myself to the exact following out of the above formulæ or manipulations, but vary them as circumstances require, and according to the result desired to be produced, and the material or substance upon which the impression is to be made.

What I claim as my invention and improvement is:

*First.* The preparation and combination of a gelatin solution, by the process and with the ingredients indicated in formula No. 1, or by combinations of similar substances in a manner identical.

*Second.* The preparation of a sensitive solution as described in formula No. 2, or with substances and ingredients identical.

*Third.* The preparation of a developing or coloring solution as described in formula No. 3, in a manner and for the purpose indicated, or by means and ingredients substantially the same.

*Fourth.* The preparation of intensifying solutions as described in formula No 4, or by means and substances identical.

*Fifth.* The preparation of a bleaching solution as indicated in formula No. 5, in a manner and for the purpose described, or by means and substances identical.

*Sixth.* The preparation of such solutions for toning the picture as are described under formula No. 6 inclusive to letter C, or such as are substantially the same.

*Seventh.* The production of photographic pictures or impressions by a combination of the above formulæ in the manner described, or by means, processes, formulæ, &c., &c., substantially the same.

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Mr. D. Sutphen, Mount Morris, Ill., lost his gallery by fire June 22d.

## Cleaning Varnished Negatives and Albumenizing the Plates.

BY E. DOANE.

Removing varnish from old negatives is very easy and speedily done by a process perhaps some may have used, but I will give the way I have found to work the most satisfactorily. Make a wooden tray 14 x 18 inches square, 6 inches deep, watertight; then varnish the inside with shellac; varnish several times; let it get dry and hard; pour in three gallons of water, and add nine or ten pounds of common washing soda; when dissolved, add one quart of sawdust which has been made from cutting cross-ways of the stuff, as this is more solid; the sawdust prevents the glass from lying so close together, and does not scratch, and gives the solution a chance to get all through between them all the time. Twenty-four hours will loosen the varnish, and it will wash clean when under the tap; after they are cleanly washed place them carefully one by one in strong nitric or sulphuric acid; twelve hours after this wash under the tap with a good stream of water running, with a clean soft sponge that has no grit in it; after rinsing the plate well, then draining a few seconds, it is ready for the albumen. The article represented by the figure is the best I have found amongst many ways of coating the plates. No bubbles or specks will bother you when properly used. There is a funnel on top, by which you filter each time you pour from your plate, and is of such a shape as not to spill out while pouring.

And for varnish it works like a charm. You filter all the dirt out through the cotton in the funnel; this is tin, 3½ inches diameter on bottom, 2½ inches on top, with a lid to which the funnel is fast. The height is five inches. There is no need of graduates or bottles, and many other things I have tried after this. Try and see how you like the cup and the sawdust.

Wilmington, Del.

## Waymouth's Vignette Papers.

We hope to be pardoned for calling the attention of our readers so often to Mr. Waymouth's useful vignetting papers; but as new testimonials continually come to us in their favor, and as those who use them seem to think they are so useful, we make bold once more to remind our readers who have not tried them, that they are losing both time and good quality in their pictures by not doing so.

The demand upon our publishers for them has been very flattering—some five thousand having been sold the first month they were made known; and they have felt encouraged to put out No. 16, pear shape, for cabinet and half-size; No. 17, oval shape, for the same sizes; and No. 18, oval shape, for whole-size and 8 x 10 heads. These new sizes are now all ready on demand.

As an example of what these vignette papers will do, we refer you to Mr. Jacoby's picture in our current issue. As we note elsewhere, these pictures would be far better if the background was light; but it will be seen that the gradation is very soft and fine. They were printed with a space of about an eighth of an inch between the vignette paper and the negative, which is the best plan.

Mr. Waymouth writes us that "a very simple way of doing this is by using a few *small* wafers (the smaller the better), dampened and joined together, and put on each corner of the negative. The paper may be easily joined to them, and the whole may be easily removed from the glass by a penknife without damaging the paper."

Trusting that our readers will give this really excellent device a trial, we refer them to a few new unsolicited testimonials concerning them, viz.:

"July 22, 1873.

"Vignetting papers received and tested: can't be beat. I use by cutting an opening in a piece of cardboard and tacking to the printing-frame, when I am ready for printing vignettes in the very best manner. I hope, however, you will manufacture larger sizes also."—R. M. Denham, *St. Clairsville, O.*

Others say:

"The papers I have had from you give great satisfaction."

"They answer the purpose admirably."

"Please send me No. 2 Packet for cabinets: the others answer very well indeed."

"They are the best vignettes I have ever had. They are a great saving of time, as you can print in full sunlight."

## THINGS USEFUL.

BY J. H. HUNTER.

BEFORE I forget it I will tell you a very simple and good way to make large ferrotype plates that curve the wrong way to curve aright. Take the plate and draw it between the thumb and forefinger, using considerable pressure, the thumb-nail being next the japanned side, a little in advance of the finger. After a few trials you can get any degree of curvature you may desire, and it is a curious fact that nine out of ten bend the wrong way, and it is very annoying after placing the plate in the holder to find it nearly touching the slide, and so be good for nothing. By the way, you hold the plate between the thumb and forefinger of the *right* hand, drawing it (the plate) with the *left; clean fingers* are very necessary to do this successfully.

In Anderson's book it is held by him, as well as by others, that it is extremely unwise to add silver to an old bath to strengthen or to make more solution. Now it may seem foolhardy to tilt my lance against the opinions of those "more learned in the law" than I, but I am going to do it nevertheless. My bath-holder contains, when filled with solution, a trifle over one gallon. I keep two solutions; one is in use always. As soon as my bath gets alcoholic, and will not develop without the aid of alcohol, I decant it, filter, test its strength, see how much solution has been used, then I place it in an evaporating dish, and boil it, or rather evaporate it to dryness, then I add the silver necessary, and *fuse;* there is no need of neutralizing. The fusing is the grand secret, and I've been told by many that it is very hurtful (the fusing). It may be, but I have experienced no ill effects from it yet, and both my baths have been in use nearly seven years, ever since I have been in this place. It is rather expensive work to cast aside a bath when it can be doctored so easily. I am never troubled with pinholes: have not seen one in ten years. I always put my plate in with the film side down. I may as well state here I use a Lewis glass bath. This placing a plate in with the film side down is a good thing; I got that from the *Philadelphia Photographer.* I just reverse the dipper, put the plate on, and immerse; it comes a little awkward at first, but one soon gets used to it; it saves lots of filtering. A great many object to fusing, for the reason that the dish is liable to crack or chip, and the silver is more difficult to dissolve; both these troubles may be avoided by stirring with a glass rod the fused mass until cool. Now I dare say this is an "old, old story" to you, but don't you know the "old story is sometimes the best?"

## FINE ART INSTITUTE.

Monday Evening, Oct. 6th, 1873.

THE regular monthly meeting of the Photographic Institute of Chicago was held this evening, A. Hesler presiding. The minutes of the previous meeting were read and approved.

According to previous appointment, Mr. Hesler exhibited transparencies by the Edwards process; also the negative from which they were made, and a beautiful imperial card of a lady, which was much admired for its delicacy and brilliancy in the shadows, as well as for its easy, graceful pose.

Mr. Hesler said that from the time he became acquainted with the method of working by the Edwards process, he had decided that good results could be obtained by it. He believed he could now work it very satisfactorily. He had felt it an injustice to condemn a process we know but little about. A formula may seem formidable at first sight, but if we will but diligently practice it step by step, it will come to us, and after the difficulties have been surmounted we will turn back and be astonished at the simplicity with which we can come to such beautiful results.

I believe that good salable pictures can be made by the Edwards process; not by any means from inferior negatives, but I mean when you have good salable pictures to enlarge. I would not, however, advise

to make a small negative where a large picture is to be made and depend on the Edwards process to enlarge it by, for I do not believe that as good results can be made by any method of enlarging as by making the desired size direct from life.

Mr. Hesler continued: I have made transparencies in various ways for enlarging, and with a good degree of success, though never as delicate and well adapted for the purpose as by the Edwards; but to those who may not have the Edwards, or may think it a very complicated process, I would state that you can proceed thus: Use a rather thin collodion, highly iodized; ordinary bath; a very weak developer, not more than ten grains strength; have succeeded best where I have used a new bath. Have also used the following developer very successfully: 20 grains pyrogallic acid, 25 grains citric acid, 8 ounces water, 3 ounces acetic acid.

Mr. Cross. I have worked the dry plate with coffee preservative for enlargements. In this way, flow the plate and sensitize ordinary way, taking the plate from the bath solution while in your dark-room; wash as usual under tap; when the water flows smoothly over the plate, flow the plate with coffee sweetened with sugar, as sweet as you would use it for the table, and set away to dry in a dark box, or better, dry by artificial heat; when dry, expose in contact with negative a few seconds, as experience may dictate; develop with iron or pyrogallic acid as you find most convenient. Think this a good method, but do not think the film as structureless as can be made by the albumen process.

Mr. Green thought he could make as fine a transparency for enlargement with collodio-chloride as by any other method. He would simply flow the glass with porcelain collodion and expose in contact with negative; tone and fix the ordinary way. Mr. Green also exhibited an enlargement from a stereoscopic view; positive and negative were both developed with iron developer. This enlargement was considered good and showed that in Mr. Green's hands good results could be made in this wise.

Mr. J. K. Stevens stated that he had been making enlargements with iron developer for both positive and negative, and had been quite successful; and he would at some future time place some of the results of his experiments before the Society. After further discussion on this subject, it was by vote deferred until the next regular meeting, with a request that all those experimenting in this direction bring specimens of enlargement at that time.

The following named gentlemen, after being duly proposed for membership, were unanimously elected members of the Institute: Messrs. D. H. Cross, G. A. Douglas, and J. F. Aitken; on motion, Mr. Aitken's dues were remitted.

Mr. Green proposed for membership Mr. Chas. Gentilo; proposition referred to committee consisting of A. Hall, J. K. Stevens, and P. B. Green, with instructions to report at the next regular meeting. A communication from Prof. Dr. Emil Hornig, Vienna, Austria, asking for the constitution and by-laws of the Institute, &c. Secretary was instructed to furnish the desired document, with such other information as was required. Mr. Thompson, of Columbia Junction, Iowa, then briefly addressed the meeting, after which adjournment until first Monday evening in November.

L. M. Melander,
Secretary.

## PHOTOGRAPHIC SOCIETY OF PHILADELPHIA.

Stated meeting held Wednesday, October 1st, the President in the chair.

The minutes of the last meeting were read and approved.

Mr. Tilghman exhibited an interesting series of copies of "silhouettes" of General Washington and Benjamin Franklin, executed by Mrs. Powel, of Newport, at the time of the Presidency of the former.

Mr. Young exhibited a positive which had been found to be sufficiently printed, after an exposure of twenty minutes in front of a lantern faced with a piece of the flashed yellow glass sold for the windows of dark-rooms. Mr. Young was of the opinion that many of the failures met with in working an emulsion with excess of silver, were due to too much actinic light in the

dark-room. Mr. Young also spoke of a large batch of plates which were found to be useless after being left for three weeks in a new poplar plate box, while others of the same batch left in a box made of white pine were perfectly good.

Mr. Bell said he believed that the keeping qualities of dry plates depended in a great degree upon the hardness of the film. He said that he had found that if plates containing sugar in the preservative, were exposed to a damp atmosphere, the film would often become tacky enough to hold any dust particles which might settle on it, and that no brushing would remove them; he therefore preferred a preservative of gelatin, and after drying the plate he dipped it in a bath of tannin which *tanned* the gelatin, and made the film perfectly hard.

Mr. Carbutt suggested that if the hardness of film was due to a tanning action, the same effect might be produced by the use of a solution of chrome alum.

A vote of thanks was tendered to Mr. Carbutt for a fine Woodburytype which he donated to the Society.

On motion, adjourned.

ELLERSLIE WALLACE, JR.,
Recording Secretary.

## German Photographic Society, New York.

THE regular monthly meeting of this Society was held Thursday, October 2d, at 64 and 66 East Fourth Street, President Kurtz in the chair.

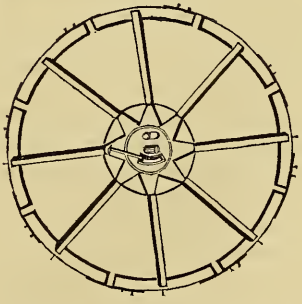
Minutes of last meeting were read and approved.

The following gentlemen were elected members: Mr. J. W. Morgeneier, Sheboygan, Wis.; Mr. Klauber, Louisville, Ky.; Messrs. A. Baumgarten, Ch. L. Kempf, M. Seeburg, Brooklyn; Messrs. E. Artman, Jahn, John Weber, Mildenburg, and Ed. Hoffman, New York.

Mr. W. Kurtz, who occupied the chair for the first time since his return from abroad, was welcomed and gratulated very heartily on his success in Vienna. In response he made a very interesting speech, reviewing the state of photography in the different principal cities of Europe. Mr. Kurtz assured the Society, that in portrait photography America was far ahead, but that Europe, and especially Germany, beat us in all kinds of reproduction. He had brought quite a collection of these with him, and promised to lay them before the Society at an early meeting. Finally, Mr. Kurtz presented the Society with a splendid portrait of the late Prof. Liebig, the eminent chemist. The picture is 24 x 30, and is printed direct on cardboard by the Albert process.

At some former meeting a discussion was had about the best method of washing photographs, and as a curiosity a douching process was mentioned, as practiced in Germany. After seeing the practical working of it in Mr. Hanfstängel's place, Munich, Mr. Kurtz is quite enthusiastic about it, and is determined to establish the same method in his new gallery, now in course of erection on Madison Square. The washing does not occupy more than ten minutes for each batch of pictures, and removes the hypo completely. Several members did not quite agree with the possibility of it, and all are very impatient to learn the future results of this *douching*.

Mr. F. E. Lussenhop, Hoboken, N. J., exhibited an expansive background frame for Bigelow's circular grounds, to remedy the frequent wrinkling of the latter. The idea is very ingenious and simple. As will be seen from the accompanying cut, the



frame resembles a wheel, each spoke of which supports a separate piece of the outside ring. By turning the screw in the centre, the different pieces expand, straight-

ening thereby the ground which is tacked on to them.

After some routine business, adjourned.

EDWARD BOETTCHER,
Corresponding Secretary.

## CHICAGO PHOTOGRAPHIC ASSOCIATION.

THE regular meeting of the Chicago Photographic Association was held at their room, 158 State Street, Wednesday evening, October 1st.

Meeting called to order at eight o'clock, President Hesler in the chair. Twenty-one members present.

On motion, the reading of minutes of last meeting was dispensed with.

Members appointed for duty called on for their papers: Mr. Haynes absent, Mr. Cunningham not prepared.

J. K. Stevens stated that since last meeting he had not been troubled with blisters on his albumen prints. On motion, Mr. Stevens was requested to give his method of working, and gave the following instructions:

SILVER SOLUTION.

60 grains crystallized nitrate of silver to each ounce pure water. Separate one-quarter amount of solution you prepare, which clear up with concentrated liquid ammonia, after which add the balance of solution. To every 16 ounces silver solution thus prepared, add one ounce alcohol. Float paper two minutes. When paper is thoroughly dry, fume with fresh liquor ammonia five minutes. Print as usual.

Cut out before toning and wash in two changes pure water. Put prints in face down and keep them so. After second washing put prints in salt and water; add enough salt to just redden prints. Leave prints in salt solution five minutes; wash prints in two waters after salt.

For toning, prepare

STOCK SOLUTION No. 1.

| | |
|---|---|
| Pure Water, . . . | 16 ounces. |
| Salt, . . . . | 2 drachms. |
| Bicarbonate of Soda, . | 2 " |

STOCK SOLUTION No. 2.

| | |
|---|---|
| Chloride of Gold, . | 1 15-grain bottle. |
| Water, . . . | 8 ounces. |

To use, prepare immediately before toning, 30 ounces water, 1 ounce stock solution No. 1, adding enough gold solution from stock bottle No. 2, to have prints tone in from 10 to 15 minutes. From toning bath put prints (face down) directly into solution prepared as follows:

| | |
|---|---|
| Water, . . . . | 16 ounces. |
| Powdered Alum, . . | 1 ounce. |

Leave prints in this bath 10 to 15 minutes, wash in one change of water, and place in *hypo bath*, made of hyposulphate of soda 3 ounces, water 32 ounces. Have prints face down. Leave in 10 minutes. I find that with formulæ and methods of working as given, and in keeping my prints face downward all that is possible, I avoid blisters. My experience with same formulæ with prints face upward has given me blisters.

Mr. A. Hesler: Has any member tried keeping silvered paper by pressing it immediately after silvering, between blotters prepared by drawing them through a 30-grain *sal soda* solution? Try it. I have succeeded in preserving paper a week, and believe it can be kept in good working order a much longer time. Prepare your blotters as stated, and when your paper from silver solution is just surface dry, put it between the blotters and lay it away; when wanted take out the paper, *fume*, and print as usual.

The examples I show you to-night are burnished with a common Excelsior Roller Press, by removing the cog-wheels from the lower roller, using the roller to which is attached the crank. Heat over a gas jet. You need but very little pressure. I do not find it necessary to use soap.

Mr. Alfred Hall: Mr. Abbott states that he spoils all his prints by using the sulphuric acid wash that I have recommended. My printer, Mr. Page, is here, and can explain how he uses it successfully.

Mr. William Page: It requires no further explanation than this: use the sulphuric acid in very small quantity; if too much is used it *will* spoil the prints.

Mr. A. Hesler: I have tried Mr. A. Hall's formula, and with success. I use the sulphuric acid solution or bath very

weak; just a perceptible sour taste to the water.

Mr. J. H. Abbott: Acid will not stop or avoid blistering; alum will.

Mr. A. Hesler: I have tried everything, but have found that, with solutions of equal temperature, and with *sal soda*, I am not afflicted with blisters. Have used the warm water as suggested by Mr. Abbott, and find it excellent when used judiciously. My *sal soda* bath is made as follows: I keep a stock bottle of saturated solution of *sal soda*, using six ounces of it to one gallon water, putting the prints into this bath as prepared after their thorough washing. Leave them in from 5 to 10 minutes; they turn a cherry-red color. From this sal soda bath put them in toning bath made of plain chloride of gold and water.

Mr. J. H. Abbott: I find that for strength, also economy, a silver solution made as follows, proves the best: Crystallized nitrate of silver, 30 grains to each ounce pure water. I make two quarts solution, taking out six to eight ounces of it which I clear with concentrated liquid ammonia, and add balance of silver solution, then put in enough C. P. nitric acid to neutralize. I take about half a tumbler of water, and dissolve 20 grains powdered alum, adding this to silver solution. Silver, and fume as usual.

Mr. A. Hesler: I have given considerable attention to silver solutions for printing. If you have a strong negative, you can use a weak solution with satisfactory results; with a weak negative use strong solution 50 to 65 grains strength. I can use the "Geneva" albumen paper with ordinary negative, successfully on a 25-grain bath. The double gloss paper I use with 30-grain solution. If printing on thin negative, make solution 60 grains, using plain silver solution, with occasionally a pinch of alum.

Mr. P. B. Greene: I use a solution from 30 to 50 grains strong as required, and use both liquid ammonia and alum.

Mr. Wollensak: I use 60-grain plain silver solution, acetic acid washing, and put prints into salt solution from fixing bath. Have not been troubled with blisters.

Mr. A. Hall: I do not believe that any of us have yet got to the bottom of the blister difficulty. There is a little blue blister having a deposit, the effect may not appear at first, but it will eventually spoil the print. Regarding the use of salt washing, it is agreed, I think, that it injures the surface of the paper. I am satisfied that to make good prints you cannot be too economical with your silver.

Mr. A. F. Wells was proposed for membership and referred to usual committee.

On motion of J. K. Stevens, the subject for discussion at next regular meeting shall be that of Enlargements.

On motion, adjourned.

G. A. Douglass,
Secretary.

## OUR PICTURE.

In our issue for April, we presented our patrons with a photograph of a peculiar style, printed in a "porcelain" effect printing-frame, the invention of Mr. W. H. Jacoby, of Minneapolis, Minn. It will be remembered that the intention of Mr. Jacoby's method of printing is to produce a soft, indefinite effect, similar to that secured in pictures on porcelain.

The example which he gave us before was by no means satisfactory to him because of difficulties which occurred incident to the cold season when they were printed, &c., &c., and he asked us for another opportunity to show you what he could do. Our present picture represents his success.

All will agree to its great superiority over the former example, and the more careful attention to the printing. There is one objection to it, however, and let it teach our readers a lesson, namely, that the background used for the picture is very much too dark for a vignette picture, and such a one should never be used. A vignette background should be soft and light in color and gradated the same as for plain portraits. By the help of Waymouth's excellent vignette papers (size No. 16), however, the fault has been partly, but not wholly overcome. The soft gradation which these vignette papers produce will be noticed by all. Mr. Jacoby speaks very highly of them, and recommends them.

Since the issue of his former picture he has been having a remarkable sale for his printing-frames, which proves that they are very popular, and he says that all who use them speak very highly in praise of them. The mounts are after Mr. Jacoby's own design, and were manufactured by Messrs. A. M. Collins, Son & Co., Philadelphia. The prints were made by Mr. Jacoby, on the Trapp & Munch German paper.

# Editor's Table.

PICTURES RECEIVED.—Some very fine stereo views of Dutch Flat, California, and surroundings, from Messrs. Halsey & Coffin, Dutch Flat. —Also from Messrs. Hurst & Sons, Albany, New York, a fine lot of superior stereo views of birds and animals. These are gotten up in Messrs. Hurst & Sons' best style, and are worthy of a place in every household.—Some very nice card photographs from Messrs. Barker & Buckley, Galesburg, Illinois, made under a south light.

WE have received from Mr. Alex. Gardner, Washington, D. C., a large photograph of the Evangelical Alliance. The picture is very fine and sharp. Mr. Gardner, in his letter to us, says: "My object in sending it is to show what a Zentmayer lens can do. The distance between front and back is a little over sixty feet, and I am at a loss to determine any one point in that space better in focus than another. It was made with a second opening in twenty seconds; good light."

THE SHAW PATENT.—We learn that Mr. Shaw is again making his compliments to many of our readers, and that some remark is made because Mr. Howson's opinion was not also published with Mr. Bell's in our September number. In explanation of the latter we would say that it was specially agreed between the Executive Committee and Mr. Howson, at the request of the latter, that his opinion should not be published in these pages. It was, however, published in pamphlet form, and as we have often announced before, members of the N. P. A. may have copies free on application to the Permanent Secretary. Plenty copies left.

DURING the past week we have had the pleasure of a call from Mr. Hickox, of San Francisco, California, formerly of the firm of John Taylor & Co., and now about to embark for himself with Mr. McKinney, of New York, under the firm name of Hickox, McKinney & Co. Mr. H. has been on east buying a full line of photographic goods, &c., and intends that the photographers of the *far west* shall have the latest and best in their line. We give him our best wishes and commend him to the patronage of the western fraternity. The firm's address is Hickox, McKinney & Co., P. O. Box 1658, San Francisco, California.

1874.—We have a splendid programme under way for 1874, and are determined to make our magazine excel itself. Please let us know early how many copies you wish, and to how many of your employés you wish it sent as a holiday present.

IT is expected that Mr. Edward L. Wilson will sail from Liverpool, October 21st, so it is hoped that he will be back at his post by the time this reaches our subscribers.

OUR N. P. A. Report given in our voluminous September number, it appears is the only one that has been published, and from all sides we are receiving congratulations on its completeness and prompt delivery. We trust those who want a *good*, *live*, *enterprising* magazine for 1874 will please remember this, and send in their subscriptions early.

MOSAICS FOR 1874 is under way, and will be issued about the usual time. We will be glad to receive short articles for its pages up to the 20th instant. Advertisers will find this the very best medium of the whole year for bringing their wares to the attention of photographers, for *Mosaics* has the largest circulation of any photographic publication in the world.

THE responses to the N. P. A. "postal card" linger along, and are slowly removing the debt, but we are really disappointed in seeing such little earnetsness and activity in this matter. The sooner it is done the better we will all feel, and that it is to our credit to do it *quickly* no one will dispute. A little more vigorous effort will place the National Photographic Association and its members in a position above all the world of photography. Let it be done *now*.

THE

# Philadelphia Photographer.

Vol. X. DECEMBER, 1873. No. 120.

Entered according to Act of Congress, in the year 1873,
By BENERMAN & WILSON,
In the office of the Librarian of Congress, at Washington, D. C.

## REMOVAL.

We have removed our entire business to Sherman's building, S. W. corner Seventh and Cherry Streets, Philadelphia, where our friends will please call upon or address us. Please see editorial this month.

## CONDITION OF THE N. P. A.

A FEW PLAIN FACTS.

On another page we publish the names of the very few patriotic members of the National Photographic Association who responded promptly to the call of the Buffalo Convention for funds to liquidate the debt of the Association, besides paying the increase in dues asked for. All honor and praise be upon them, but what of the rest? True, the panic has prevented some from responding, but there are enough left with plenty, who could wipe out the whole debt quickly among them. Will they not do so? It is time that the Executive Committee and the Local Secretary were arranging for the Chicago Convention. They hesitate to do so, because they are responsible for debts contracted, and they feel unwilling to bear more alone unless the membership show greater disposition to help them. Members of the National Photographic Association, what shall be done? Brace up the Association *now*, and it will never falter again.

## TEN YEARS.

The current number completes the tenth volume of the *Philadelphia Photographer*, and ends the tenth year of its existence. It seems but yesterday that we put our inexperienced pen to paper for the purpose of framing our first prospectus, and yet a whole decade has passed away since that time. With it many good men, well known in our art as its progenitors, have passed away, and new ones forming a second generation have taken their places. Many improvements have been made, too, and wonderful discoveries, such as no former ten years of the life of photography have witnessed.

Photographers have awakened out of sleep, and the photographer of ten years ago has no existence. He has been superseded by those who practice more intelligently, and whose works tell of the progress which they have made. Had we the time and the space to review the past ten years, we think we could show that they have been the most eventful in the life of photography; but we cannot do that now. Should time permit, we propose to collate in book form the most eventful and useful matters that have come up in the past decade and offer it for your perusal.

We shall only tarry now, as is the custom at this season of the year with all journal-

ists, to "declare our intentions" for the future. As during the past we have carefully tried, not only to lead our patrons in the way of progress and development in the practice of their art, but also to stand at the gate and watch, lest any imposition be practiced upon them, and to fight against all matters antagonistic to their interests; as we have in the past made effort, without regard to cost or to the extent of such effort, to secure every new and good thing which could be had in the world for the information and benefit of our patrons; as we have in the past tried to render you the full worth of the money you invest with us, so in the future do we expect to continue.

Our old staff of contributors will continue, while our absence abroad has enabled us to secure more talent, which will be found to add much to the value of our magazine. We have also collected much fresh and original material for our next volume, which will be found very interesting and useful. We shall go on with our work, trying continually to better it, assuring our readers that their interests shall be carefully looked after.

We have many names upon our subscription-books which have been there since those books were opened. We trust they will live there as long as our magazine lives. Moreover, we trust that *all* who receive our magazine now will favor us with an early renewal of their subscription. Not only this, we hope that employers will remember their employés during the coming holiday season, by placing the *Philadelphia Photographer* in their hands with the promise of its monthly visits for the year 1874. It will surely put money in your own pocket and reward you fully. We know those who have tried it over and over again, and they declare that it is no longer an experiment, but a sure source of gain to them. You must yourself admit the advantages of keeping your employés well informed in their work. You cannot do it in a better way than by placing this magazine in their hands monthly. Try it, and we guarantee the result to be a profitable one to you.

Our list of premiums has been enriched and made more attractive than ever, and notwithstanding the times are a little stringent, we do not see how any one can afford to do without their photographic journal.

We have placed order-blanks in the present number, between the pages, and trust they will be returned to us freighted with orders. Our losses resulting from our over-zealousness in your interests during the past year have made us more than usually desirous for a large subscription list this year. And since we have completed ten years of union with you, are we not entitled to all the benefits of a "tin wedding?"

We have many good things in store for you, and begin our new volume under unusually favorable auspices, so far as making the contents of our magazine valuable. The first number of the new volume will be embellished by a splendid picture from the studio of Mr. F. Luckhardt, in Vienna, and its followers will contain many excellent things from the studios at home and abroad.

Trusting to you to make full return to us for our zeal in your cause, we wish you a happy New Year.

## EDITORIAL CORRESPONDENCE.

### III.

London, October 17th, 1873.

It seems needless that I should write you, as I shall probably be at home before you can publish this. However, if it arrives too late for your November issue, "what I have written I have written," and it may take its place in the number which shall end the tenth year of the *Philadelphia Photographer*. As I have said, in my last, I do not think of telling you of a tithe of what I have seen now. I could indeed fill a volume of *our* magazine with the details of photographic and art matters that have interested me, and which would interest you, doubtless, but I have a better plan in store than telling you of them in the hurry of travel. If I arrive safely at home, as I trust I shall, I will put the multitude of items I have collected, into the editorial filter and begin to give you the residue in instalments, commencing with the new volume for 1874. I am sure I did not travel with my eyes closed, although the journey I have made seems like a dream to me. Neither did I

forget to stuff my memorandum-book with matter for *your* future good, as I trust, and the whole thing shall be fully exposed before you and properly developed and fixed, if you will only give me time.

My week in Paris was one of the red-letter weeks of the journey, and I made good use of my time, and wanted more. I flew around in lively style, including a visit to Mons. Adam Salomon, and the experience of having a negative made by him; visits to the studio of Mr. Charles Reutlinger, whose name and work are familiar to you all, and which we hope to make more familiar; to the immense establishment, devoted entirely to the production of glass transparencies for the stereoscope and for the lantern, of Messrs. J. Levy & Co.—one of the photographic wonders of Paris; to the establishments of Messrs. Soulier, Goupil, Rohaut & Hutinet, manufacturers of the most beautiful photographic mounting-boards; to the press manufactories of Lecocq; to the lens manufactories of Hermagis, Derogy, &c.; to the large stereoscopic factories of many of the best photographers there; to the works of Messrs. Goupil, under the charge of Mons. Rousselon, at Asnières, where the Woodbury process is worked largely; in fact, to *all* of the photographic industries so numerous in that wonderful city. I also visited Mons. Ernest Lacan, editor of the *Moniteur de la Photographie* and Secretary of the French Photographic Society, and Mons. Davanne, and many other photographic savans. You well know that all this was a great pleasure to me, and I will communicate as much of it to you as I can possibly, by giving you detailed notes of what I saw, presently.

From Paris, after being chopped up on the Channel until there was but little of me left, I reached London—clumsy, foggy, smoky, anti-photographic London—where, perhaps, photographic industry is carried on to a greater extent than any place in the world. I here have about ten days of time to put in, and it *should* be twice or thrice as long. I already feel that I have not time enough, and I shall have to sail home in the Cunarder "Batavia," on the 21st instant, without having seen much of London outside of photographic matters.

I have visited many of the large works here,—the autotype works; the Woodbury works; the manufactories of Messrs. Ross & Co. (opticians), a very bee-hive of industry; the studios of many of the prominent photographers, among them Messrs. Valentine Blanchard, whose kindness I shall never forget; Messrs. Williams & Mayland, &c., &c. Another visit to the studio of Messrs. Robinson & Cherrill was also included in the programme, resulting in the carrying away of some fine negatives for the future embellishment of the *Philadelphia Photographer*. On my return here I found my friend Gates quite acclimated, fully posted on the windings of these worm-like streets, and able to take me around in quick time, which he did. I was also so fortunate as to be able to examine the pictures intended for the annual exhibition of the London Photographic Society, to be opened on Tuesday, I believe. The jurors were busied at their examination, and this afternoon made their awards of the Crawshay prizes, the result being as follows:

First prize, for large heads (£50), $250, Messrs. Robinson & Cherrill.

Second prize, for large heads (£25), $125, Col. J. Stuart Wortley.

First prize, for small heads (£25), $125, Mr. Valentine Blanchard.

Second prize, for small heads (£12), $60, Messrs. Robinson & Cherrill.

Prize for enlargements (£25), $125, Mr. B. J. Edwards.

Surely Mr. Crawshay deserves much praise for his well-meaning liberality in supplying the funds for these awards. It always does good to excite effort in the direction of improvement, and too much praise cannot be given to those who have the means and the liberal spirit to do it. It was most interesting to study the competing pictures, and I shall refer to them again, only adding now, in this connection, that they confirmed the opinion that I have long indulged, that enlargements from small negatives are far superior to large heads made with large lenses direct upon the plate. Good as were the large heads of gentlemen who competed, made with large lenses, the enlargements from small negatives by Mr. B. J. Edwards were infinitely

superior, both in drawing and in chemical effect. I do not think anything better has been made. I do not remember to have seen any regular solar camera enlargements. That method is little practiced here. I am very sorry that some of our American photographers did not compete for these prizes. But I must not linger here now. I shall return to this exhibition hereafter, and allude to its practical teachings in a separate article.

In four more days I sail for my native land. The weather is not promising, but I have fixed the day of sailing and I must go. I have many things here yet to see, and it is no little work to get about in this city of magnificent distances.

So pardon a hurried letter, and hold me to the promises which I have made in it. In less than three weeks I hope to be back at my post, as usual, with renewed health and vigor, and I trust better informed than I have been heretofore on topics pertaining to the wondrous art which we have all chosen for our field of labor.

With best wishes, truly yours,
EDWARD L. WILSON.

P. S. In my last letter, page 518, read Ernest Milster, for "Ernest Milsher," and Julius Schaarwachter for "Julius Schaar and Wachter."

## HINTS FROM THE RECORD OF AN ARTIST AND PHOTOGRAPHER.

BY JOHN L. GIHON.

SOME time since I promised to give you an account of a few of the places in whose neighborhood we had carried our "dark-tent."

The above sentence is somewhat provisional, for although the contrivance was an inseparable part of our outfit during our wanderings in the "fever season," it by no means follows that we should have put it into active service upon every occasion. As a general rule—especially in a warm country—it will be found advisable to endure many inconveniencies in preference to working under a "dark-tent," no matter how cleverly it may have been constructed. This is more particularly the case where your labors are mainly directed to the development of very large plates. The commodious and elegant wagons fitted for photographic uses—such as are common in the States—are unknown here, and it would be found equally as difficult as it would be expensive to either import or to construct one. Mules and horses are plentiful, whilst wheels and springs are correspondingly expensive. So, no matter how many of the former are attached to a vehicle, you will find the number of the latter exceedingly limited.

These peculiarities of the conveyances necessitate somewhat careful packing when you undertake a trip, and the examination of material after we had arrived at our proposed destination was always a matter of considerable anxiety. My antipathy to working under a canvas is occasioned, not only by the restriction of motion that you are forced to undergo, and the limited space your appurtenances must occupy, but also by the fact that you are obliged to breathe an atmosphere as unwholesome as it is sickening. I would at any time prefer walking or riding a considerable distance, and make suitable provision for the proper keeping of a plate, than to work upon the spot, making use of our improvised dark-chamber. This preference has been the occasion of my developing plates in some very queer places, and I can call to mind comical recollections of closets, bath-rooms, cellars, lofts, outhouses, carriage sheds, stables, and even cemetery vaults, which I have hastily fitted up and made to answer the requirements of the occasion. The wind, too, is another great enemy to dark-tents, for it is not only disagreeable to have a lot of muslin flapping about your ears, but in addition you have the constant apprehension of the upsetting and loss of your valuables.

In these latitudes, Boreas occasionally gives us some good old blasts, and there are few mariners who have sailed in the vicinity of the Rio de la Plata that do not dread them. Some three weeks ago, to add some excitement to the celebration of a holiday, an adventurous balloonist made an ascension. He was unfortunate enough to get caught by one of these suddenly appearing currents of air, and when last seen

was reported to be scudding over the ocean at the rate of about one hundred miles an hour. His immediate return is not expected, and his family would be justified in assuming mourning weeds over his somewhat hasty departure.

It may be argued that a landscape photographer has no business to be out in windy weather, but he can often very well economize his time by taking a shot at buildings, ruins, or rocks, that stubbornly refuse to be moved. Very many mornings, indeed, have we packed up our traps and sallied forth with the anticipation of a fine day's work among the adjoining country-seats, or amidst pleasant scenic localities, and very many times have we arrived at our proposed destination, conjointly with a breeze that would effectually blend grasses, bushes, and trees into most unpicturesque and blurry masses. Under such conditions, either at once beat a graceful retreat or find your revenge in architectural pursuits. The results will often pay as well as your intended projects. To the interference of a windy morning, we are indebted for a very fine series of views of the "Bull Ring." My dark-room upon that occasion was one of the many pens in which the animals are separately confined until needed. Barring the fact that one has to stand in mire, suggestive of a barnyard, the pen, or more properly the dungeon, answers the purpose admirably, for it is the custom to keep the animals in darkness until they are finally rushed into the glare of day, to be surrounded by tormentors and huzzaed, or condemned by the thousands of spectators. Woe to the beast that *won't* fight. He is soon lassoed, dragged away, and speedily converted into the more ignoble ox, that by a life of ignominious toil he may atone for his want of courage. The entire performance has been so repeatedly described that I shall make no attempt at it. Cruelty is, of course, the leading feature, and no device is neglected that will tend to lash the victim to the desired extent of madness. Bloodshed is demanded by the tastes of the majority of those who attend, and as the human actors are generally agile enough to escape, it becomes the province of the poor blindfolded horses to be gored and tossed. A good bull will often kill seven or eight horses, and as they are frequently ripped open several times before death ends their agonies, the refinement of the entertainment can be appreciated by the most unimaginative. The performers are governed by as many rules as used to be insisted upon by professional prize fighters, and the darts that incite to fury, the rockets that seethe into the flesh, and the final sword-thrust, have all to be given in strict adherence to them. The audience is always a critical one, and last year showed its disapprobation of a badly conducted fight by making a bonfire of everything about the place that would burn. It is a fine (?) school for boys, and their attendance is always numerous. In fact, the wind-up is designed especially for them, and resembling in principle the farce of the "Comic Mules," so invariably tacked on to the breaking up of a circus. A young bull is let loose and a general invitation given to the youngsters to enjoy themselves. They enter into action with ardor, and a reflective man can amuse himself by observing how far the human power of imitation can be carried. Every motion of some favorite "Espada" or "Banderillero" is repeated a thousand times by as many youthful aspirants, and coats and "ponchos" are flirted before the eyes of the young animal with all the grace that characterizes the motions of the trained professionals. The costumes of these latter are highly picturesque. I have made photographic studies of members of the company, and I was surprised upon the close inspection thus afforded me to find that the dresses were of such genuine value. Gold lace is lavishly embroidered upon silk and velvet jackets, and even the cloaks that are flaunted about and often dragged in the dust would excite the envy of many a young lady.

Mr. Bergh and his coadjutors could find plenty of occupation in their peculiar province of relieving the distress of brutes, not only in the arena, but in the streets. They would have to bear charmed lives, however, for it would not require more than two or three interferences on the part of any one of them to insure himself a speedy passage to the land of shadows. The only obituary

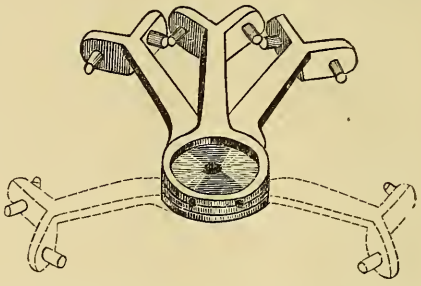
published would be that Mr. So-and-So was found in the street wounded with a knife, and that he was buried at such a place.

And now, I must give you a really valuable "hint." Mr. L. W. Chute, one of the gentlemen by whom I am engaged here, and a brother to our esteemed friend, R. J. Chute, has just taught me how to clean glass. With his permission I make the method public. Don't expect anything complex. Merely fill a large flat dish or tray with commercial nitric acid. Put in as many plates as it will hold, and finally add four or five ounces of 95 per cent. alcohol to each half gallon of acid. No action takes place for a few minutes, but soon a bubbling commences and then a very violent ebullition ensues. Dense suffocating fumes arise for awhile, but gradually cease. Examine your plates and you will find that they now only need a good washing with water previous to albumenizing. The most obstinate varnished films yield at once to this treatment, and in less than half an hour you can remove coatings that operated on by potash and acid would have required days. I fully appreciated the plan last week. A large number of negatives had been doomed to destruction, and I can assure you that in less than two hours several thousand were most effectually wiped off. It is scarcely necessary to warn you to place the dish in the draught of a chimney, or upon the roof of your house, or in the open air. The fumes are too stifling and noxious to run the risk of inhaling them. I call especial attention to this "wrinkle," and think that every photographer who tries it will give his full appreciation of it.

Montevideo, S. A.,
September, 1873.

## A SUGGESTION FOR A TRIPOD HEAD.

At the November meeting of the Photographic Society of Philadelphia, Mr. D. Addison Partridge exhibited a very ingeniously constructed tripod head, designed and made by himself. It is of brass, having three arms, connected at the centre by a compass joint, so arranged that when not in use it can be folded like a partially closed fan, and supplied with stops that hold the arms when open in the proper position for adjusting the legs. The objection to a rigid tripod head is that it occupies considerable space and is often a clumsy article to carry.



Mr. Partridge has given the subject much thought, and freely offers his model for general use.

The cut shows the arms folded for convenience in travelling, the dotted lines representing them as open for use.

John C. Browne.

## COMMUNICATION.

Messrs. A. Bogardus, Albert Moore, &c.:

As Mr. Shaw only claims the use of *sulphuret of potassium* to reduce wastes, and is very careful to state that the processes by salt and acid are worthless, I would inform you that I have not in the past used and do not purpose in the future to use Mr. Shaw's process, but will instead, continue to use the worthless processes of which he makes mention, and which I find fully adequate to my purposes. I will in consequence decline to enter into any arrangement for the purchase of said patent, nor will I use my influence to induce others to do so. I think the members of your committee have not given the matter due consideration, and have acted on the supposition that because Mr. Shaw pretends that sulphuret is the best precipitant, all other means which will answer the same purpose fall under the application of the patent. I consider Mr. Shaw's process the worst process known

for precipitating wastes, and the proof that he thinks so himself is found in the fact that after having used sulphuret in the boxes which he put up here in Cincinnati, he substituted plates of zinc, which are just about as bad.

Respectfully,

C. WALDACK.

## GERMAN CORRESPONDENCE.

*Photography at the Vienna Exhibition.*

(Continued.)

NEARLY related to the Austrian pictures are those of Hungary. Hungary is but a part of Austria, although she considers herself an independent state; and with but few exceptions, her productions are imitations of the products of Vienna. We have only to except a single exhibitor—I refer to Professor Koller, in Bistritz (Transylvania); this artist, a genuine German, has preserved his nationality, and offers in his pictures the characteristics of his country; these are still-life pictures, illustrating the modes of living of a castaway tribe of Saxons. The exhibition itself furnishes the proof of the correctness and truthfulness of these pictures, for in the park a peasant house of this Saxon tribe is exhibited, with all its original furniture, and even a Saxon couple, man and wife, residing in it. We see the people in their own home, and to judge from this, Koller has hit the nail on the head. The furniture of the old inn, the tools, everything is faithfully represented. The wood-sawing peasant, the village bride, the gypsies, these are character pictures of the highest order, not only on account of their fidelity to nature, but also for their entire harmony. One sees that Koller has toned his accessories; everything is of the proper shade, and nothing predominates. There is unison in the pictures, and artistic feeling. We cannot say the same of the two painted photographs, or chromophotographs. Chromophotography is an Austrian invention (?), and an Austrian specialty about which a great fuss was raised; and an attempt was made to introduce it elsewhere, but without success. The process consists, in its main points, in the production of two pictures from the same negative; each picture is painted; the one is fastened by means of a varnish to a plate of glass, and the other back of it, leaving a small space between the two pictures by placing strips of pasteboard between them. I believe that this process has been practiced in America earlier than in Austria. It has been modified repeatedly, but all that is exhibited in this style may fill the public of a suburb with admiration, but will not satisfy a person with any taste for art. The newest variation of this curious process is the chromophotography without chromos, *i. e.*, without color. Two black pictures, which have been made transparent, are pasted one behind the other, but in such a manner that a small space is left between them. This is done by strips of Bristol-board as above. The effect is curious, and reminds one of mezzotints, but I prefer the latter. A method which dealers employ at present for making colored pictures seems to deserve more attention; it consists simply in coloring the back of the pictures, to mount them, and to make them transparent by means of wax. This process is, at least, very simple, and furnishes better pictures than the so-called chromophotograph. But I intended to speak of the Hungarian pictures. It is strange that in a city where there are so many handsome women, as in Pesth, there should be so few pictures of them. Doetor, Ellinger, Kagnatz, all three of them artists of that city, have, strange to say, not tried themselves on the ladies, but on the children. Klösy has accomplished the most; not only in portraiture, but he is distinguished also by his landscapes and architectural objects. We do not find him, however, in the Hungarian but in the Austrian department, although he is a Hungarian. Divald, also an artist from the Carpathian Mountains, has contributed very clever views of the scenery of those mountains. When we add to these the groups of Ruprechtin, Vedenburg, which are not bad in a technical sense, we have about exhausted the Hungarian department. Hungary's neighbor, the so-called unhappy Poland (unhappy by its own fault), has a pretty good representative in Szubert, a Polandized German. Besides him, Nowicky, in Lemborg, deserves attention for a new method

of coloring photographs. This is new, in so far as the color, that is, the paints, are fixed by the chemical action of light. He adds to the paints a little bichromate of potash and gum, and by the chemical action of light both become insoluble. If much is gained by this method, it is still an open question. When we want to protect the paints the simplest way is to wax the picture, but when the paints have been poorly applied the chemical action of light does not improve them at all, and chemical action of light is by no means photography, and, still less, art, or else we would have to place the celebrated pea-sausage in the category of photography.

You are, perhaps, not aware how this pea-sausage, the food of the whole army during the late French-German war, is connected with photography, and I will enlighten you. When these sausages had to be manufactured by the thousands, daily, a want of casings soon manifested itself, and it was necessary to find a substitute. Parchment-paper was selected for this purpose, but we did not possess a glue which would withstand the action of boiling water in order to hold this parchment sausage together. My friend Dr. Jacobsen solved the problem; he mixed the glue with chromate of potash, pasted the sausages with this glue, and exposed the pasted parts to sunlight, and the glue became insoluble. Thousands of pea-sausage casings have been made in this manner. Invigorated by our sausage, we turn to Russia. We find here an interesting part of the photographic collection, but which, probably, will be thoughtlessly passed by by the majority of visitors. It is the exhibition of the Imperial Russian establishment for making bank-notes and other papers of value. We see, to our surprise, what may be accomplished when photography is combined with copperplate and ordinary printing. Surprising above all others are the heliographic reproductions of printed matter, given in microscopic minuteness. We find a whole page of the *Illustrated News* reduced to the space of one and a half inches, but so sharp (it is copperplate prints) that, with the aid of a magnifying glass, we easily can read it. Scamoni, the originator of this little masterpiece, exhibits a whole book of these microscopic prints. It contains the proclamation of the Emperor Alexander. The book is so small that it can be carried readily in the vest-pocket. The dream of our friend Simpson is thus realized. Two years ago, when speaking of the carrier-pigeons, Simpson suggested that by reducing printed matter to microscopic dimensions, thick volumes might be reduced to a few sheets, or even a few square inches, and a whole library might be contained in a quarto volume.

Scamoni has done this, and his process, which to many may appear as only a curiosity, may yet gain great practical importance. We have just finished here, in Berlin, a new building for the library of the University, but hardly is it done when it proves too small, and this is the case with almost all the libraries. There is not room enough for the constantly accumulating material.

Photography shows the way how to save space, and only one room will be required in which the microscopic pictures, with the aid of the magic-lantern, are enlarged, and become as readable as ordinary print.

The manner in which these heliographs have been made is quite original. From the original print Scamoni takes a collodion positive, and intensifies it with pyrogallic acid and silver, as well as bichloride of mercury and iodine, to an unusual degree; he obtains, in this way, a picture in which the lines are raised; a galvano-plastic cast is taken of it on copper, and in this manner he obtains the plates from which to print. Scamoni is also an able relief printer; he is the only one in Russia who successfully practices the Woodbury process; he also makes heliographs with gelatin and asphalt, the beauty of which leaves nothing to be desired. His plates with sunk-in lines for copperplate printing are equally good; in size, however, they are smaller than the plates of the Vienna Military Institute, but artistically they stand much higher. Much has been said of the Russian photographs. There was a time when Beyer, in Warsaw, and Bergamosio, in St. Petersburg, were praised as model artists. When I examine their pictures now, after a lapse of ten

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years, I shake my head; they may have made model pictures in those days when we had no idea of art photography; the heads are large, sharp to the very corner, without retouch, and without stain or blemish, and this is all; of artistic feeling not a trace. The Russian photographers have remained stationary; they are the same to-day as ten years ago; only one of them, Denier, has produced something new; but we can give to his mezzotints, which are made from two negatives, only conditional praise. Many of them, for instance, that of Gortschakoff, have too little sharpness; we get dizzy by looking at them. The smaller pictures make a better impression. Bergamosio has sent a number of theatre figures; in these pictures figures, furniture, and background have a very stagy look,—the real show-case pictures, which may astonish an Asiatic, but fail to impress us. Miezkowsky, in Warsaw, exposes large-sized pictures, but his productions are also devoid of artistic merit. He also exhibits large negative plates, and seems to put great stress on it; but the production of large plates is rather a matter of routine and manual skill than art. It is a peculiar idea to make plates of 20 inches square, on which there is nothing but a figure about 8 inches large, a curtain, a table, and a perfectly bare background of the 20 inches around the main figure. I may cut away everything until a picture of about 10 inches square remains, which has artistically as much value as the large one. Cayat, in Paris, understood it better to make a large artistic picture, and to fill it; add to this the tasteless pose of Miezkowsky's figures, the hard white light, the deep shadows, and yet this man asks for a diploma of honor.

Taganz, in Warsaw, is rather more deserving, although his portraits also betray the Russian style,—empty background, indifferent pose; still he has distinguished himself by very clever landscapes and interiors; also by "Lichtdruck." Dietkiewicz, in Warsaw, works in a similar manner; besides these, only a number of landscapes, view of the Caucasian Mountains, taken at Kiew, views of the city of Moscow, &c., have to be mentioned, and we have exhausted Russian photography.

Let us proceed further, and we reach the Turkish department; it has but one photographer, but he is excellent; it is Sebach, of Constantinople. Mohammed has forbidden his followers to have their pictures taken, and declared it a sin. But this does not prevent the Turks to sin away (photographically), and Mr. Sebach, a Turk himself, makes, by these sins, which he may practice also on Sunday, without being called a Sabbath-breaker, plenty of money. He even exhibits the pictures of Turkish ladies. The bashful daughters of the Orient unveil themselves before the photographic apparatus, and know very well how to pose themselves. Some no doubt will be curious to see the image of such a Turkish beauty, but I must confess that many of them would have done better if they had not removed the veil. I confess to have seen in the Orient many women without veils, and also Egyptians, but if the wife of Potiphar was no handsomer than those which I saw, it was not very hard for the chaste Joseph to preserve his chastity. Sebach's photographs interest me more than his originals. He also exhibits wonderfully fine landscapes. His Egyptian pictures are the finest I know; his views of Constantinople are splendid, particularly the architectural ones. His true landscapes appear a little underexposed, and hence too dark; but compared with the richly-tinted scenes of the Bosphorus, photography has a hard task. Sebach is also a photolithographer, and practices the Lichtdruck; he is a very zealous and industrious man.

Greece can only boast of two exhibitors,—Moraites and Kollas; the former contributes some good pictures of the Athenian ruins; these are, for the study of antiquity, invaluable. Unfortunately, these pictures show strong traces of turning yellow. Water seems to be more scarce now in the beautiful Attica than in those days when the Ilissus rolled his much-lauded waves into the Pyræus, and when the holy groves resounded with the songs of the Bacchantes. The people who now tread these sacred places seem to be as wormeaten as the ruins themselves, and no culture is capable of infusing new life into the rotten wood; even photography, this new art of painting, the

child of our century, fails to give a new impulse to Greek art. For the development of photography, and for its future progress, we have to look to the newer civilized countries, and America has a decided word to say in the matter.

Yours truly,

DR. VOGEL.

## NEWELL'S COMPOSITION

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AND

## Newell's Fluid-Proof Bath-Holders.

WE have lately had the opportunity of examining some of the photographic ware manufactured by Messrs. R. Newell & Son, No. 626 Arch St., Philadelphia, which is made of wood and coated with their patented composition inside and out. They have greatly improved their ware in shape and lightness, and their bath-holders, with tight top or without, are all one could desire. They are strong in all their parts, are fluid and acid proof, and are absolutely unbreakable by any ordinary or extraordinary usage. They are in use by many leading photographers, and are praised and valued by all who use them.

## A GLANCE.

BY G. W. DOTY.

KNOW thyself! Until then we will retouch and touch-out.

During the last year I have visited a number of photographers, and talked up the question of retouching. I have read a number of articles upon the subject, but as yet I have never met with any article, or photographer, who based the subject upon the right foundation as I see it.

We all see each other with a glance. The American people are of a very sensitive nature, and prompted by etiquette are prone to look each other in the face as little as may be, consequently we have a very indistinct idea of each other's true features, and only see ourselves and friends in a good picture.

When we look into the mirror we are almost always making our toilet, looking at our dress, hair, &c., and not particularly at our features, and the consequence is there is a constant change taking place, and we fail to see it; but the photograph will not blush; you can look at it by the half hour, and no one is offended; you can look, and comment upon the freckles, moles, pimples, deep lines, hollow cheek, high cheek-bones, frowns, deep sunken eyes until the white is lost in shade, scars, crooked nose, crooked face, crooked mouth, one eyebrow higher than the other, one small eye, &c., which you never saw before.

Some people talk with their mouth, some with their eyes, and some with their ears. Some peculiar twitch of the lips, some peculiar expression of their eyes, or perhaps a slight movement of the ears during conversation, is apt to attract attention; and whenever we speak or look at each other we do it usually with a glance, and that snatch or glance is directed to one of these places, consequently we do not look into each other's face with the least idea of fixing its formation upon our mind with a lasting impression.

There, perhaps, is no subject or matter that the mind is so treacherous upon as the question of remembering the features of another, even those most dear to us; and to illustrate it I will just call the attention of my brother photographers to a fact which, no doubt, you all have had a trial at, that of furnishing a colored portrait for a customer, of a deceased friend. No two of the friends will agree as to the color of the hair, eyes, &c.; one, perhaps, will have it that the eyes were light blue; another dark blue; another will say, no they wern't, they were gray, &c. I can illustrate the question in a great many ways, to prove that we do not know each other as we should, and that we do not know ourselves is a positive truth.

Where is the person who can give a true delineation of his features? Think of it, you workers upon the human face divine!

We see ourselves and friends only with a glance, therefore we must make the photograph as we see each other, and that can only be done by retouching.

The faithful camera does its duty, and to the perfect horror of many customers they just discover how wrinkled or freckled their face is, this or that as the case may be.

They are apt to see something they never saw before, and many times condemn the photograph when in reality it is a perfect likeness.

The old saying, "I want it natural," or "I want it to look just like me," or "I want it just in my every-day clothes," *is played out.* Even the backwoodsman wants an improvement; and if you make their mouth crooked (a reality), or show a dirty spot on their cheek (a sunken cheek), or the hair or whiskers gray (high-light), coat or dress gray (blue-black), and other things too numerous to mention, they will tell you it isn't natural. And until we all have learned to "know thyself" we must retouch, touch-out, or doctor up the picture until it looks as we see each other in a glance.

## JOTTINGS FROM THE JOURNAL OF AN EXPERIMENTALIST.

(Continued from page 541.)

### III.

*Another Formula for Dry Printing by Development.*—Coat the ferrotype plate with the opal collodion bromo-iodized, and dry it well. Now wash under "the tap" until the film is evenly moistened, then flow with an argento-chlorized gelatin, as thick as it can be and flow smoothly. Dry well, and print under the negative from sixty seconds to two or three minutes, according to circumstances. Wash for a moment, and plunge into the nitroglycerin bath as above, and develop. In the latter as in the former process, fix the picture in a saturated solution of hyposulphite of soda.

Pictures by the above processes may be toned if desirable.

A further modification of the process may be practiced as follows:

Coat the plate with the opal film, iodized as above, let dry. Now dampen the surface and flow with a gelatin solution containing from ten to fifteen grains of nitrate of silver and one grain citric acid to the ounce. Dry, and expose for an instant as in the first process, and proceed with the development and fixing precisely as above. I have by this last process, and by the first, succeeded in getting fine negatives upon dry plates, substituting the ordinary negative collodion for the opal collodion in these formulæ, and I have no doubt that from these hints a *rapid* and *simple* dry process can be perfected, which will involve none of the tedious manipulation incident to most of the dry processes as at present practiced.

I would suggest, in closing, one thing in the use of gelatin in the above processes. Do not use a gelatin solution too long.

I also make carbon prints by the following process:

After the ferrotype plate has been coated with the opal collodion and dried, it is coated with a gelatin solution prepared as follows:

SENSITIVE SOLUTION No. 1.

| | |
|---|---|
| Water, | 10 ounces. |
| Alcohol, | 10 " |
| Bichromate of Potassa or Bichromate of Ammonium, | to saturation. |
| Nitrate of Uranium, | 100 grains. |
| Sugar, | 2 ounces. |
| Gelatin, | 4 " |
| Camphor, | 50 to 100 grains. |

I flow the above solution over the whitened plate, which when again dry is subjected to the action of light under a negative. Or I flow the plate with a sensitive solution prepared as follows:

SENSITIVE SOLUTION No. 2.

| | |
|---|---|
| Water, | 10 ounces. |
| Alcohol, | 10 " |
| Gelatin, | 4 " |
| Sugar, | 2 " |
| Bichromate of Potassa or Bichromate of Ammonium, | to saturation. |
| Nitrate of Silver, | 60 to 100 grs. |
| Chloride of Calcium, | 20 to 30 " |
| Camphor, | 50 to 100 " |

If I sensitize a plate with the Sensitive Solution No. 1, it is, after being submitted to the light, treated as follows:

I make the following solution:

SENSITIVE SOLUTION No. 3.

| | |
|---|---|
| Water, | 5 ounces. |
| Alcohol, | 5 " |
| Extract of Logwood, | 1 ounce. |
| Other coloring matter according to the tint required, | q. s. |
| Hydrochloric Acid, | 2 to 3 drachms. |

When the plate is brought in from the light it is plunged into the warm water, to

say, a pint of which, about one or two drachms of the above Solution No. 3 is added, and suffered to remain there until the image is darkened to the proper depth. The warm water is then constantly renewed until the lights and middle tones are washed out.

If I use Sensitive Solution No. 2, the exposure to light is similar to No. 1, and the coloring and development of the image the same, but as the picture contains a slight quantity of silver, it can when fully developed be toned to any required tint by means of chloride of gold, and when fully toned, *every particle of silver dissolved out* with cyanide of potassium, thus making the picture as permanent as the one by the first process.

I do not confine myself to the exact proportions of the chemicals indicated above, and I also use other chemical compounds producing similar results.

I also use both of the above processes on paper, cardboard, thin glass, or other suitable substances, either with or without the opal collodion.

The process is probably the most rapid printing process *by contact* at present known, and is the only direct printing process in carbon by which full definition and proper half-tone with sufficient vigor has been secured. It has also in most particulars the merit of *entire originality.*

## DR. VOGEL'S POCKET REFERENCE BOOK.

This splendid work is having all the enthusiastic reception we predicted for it. As we use it, and we think the experience of others is the same, we find it more and more invaluable. Photographers wonder why we have not had such a book long ago. The reason is because no one seemed willing to devote the time to its production. An immense amount of thought, research, and labor is necessary to arrange such a work, as you will find when you examine it, and it could be done in no short space of time.

The American edition has all the merits of the German, and many important additions have been made to it. We cannot commend it too highly. We find it most useful to us. You will find it most useful to you. One of the best selections from it we give below,* to show how thoroughly the talented author gives attention to all subjects. The chapters on Studio Construction, Negative Manipulation, Printing, Toning, &c., are unsurpassed.

**Consumption of Chemicals in the Negative Process** per square foot $= \frac{1}{10}$ square metre of plate for landscapes.

1. Equivalent collodion. Cadmium iodized, containing $1\frac{1}{2}$ pyroxylin, $1\frac{1}{2}$ per cent. salt.

I use per square foot $= \frac{1}{10}$ square metre $16\frac{2}{3}$ grammes $= 20$ cubic centimetres $= \frac{1}{2}$ of an ounce.

One of my scholars consumes only 11.4 grammes, or only 3 grammes for a plate of card size.

2. Silver bath—1 to 10 and 1 to $12\frac{1}{2}$. The consumption of the bath solution per square foot is at most but $\frac{1}{4}$ of an ounce. This includes the loss by filtration, emptying dishes, &c.

According to Meikes, one of my former assistant experimenters, the consumption was $\frac{1}{2}$ ounce $= 16\frac{2}{3}$ grammes per square foot $= \frac{1}{10}$ square metre.

*Silver bath* for filling a flat dish 8 to 10 inches with as much solution as is necessary for sensitizing conveniently $= 400$ cubic centimetres $= 13$ ounces.

3. Developer and intensifier (5 per cent. protosulphate of iron or 7 per cent. sulphate of iron and ammonia) 3 to 4 glacial acetic acid and alcohol.

Consumption per square foot $= 300$ cubic centimetres inclusive of intensifier (I intensify with iron); without intensification, 200 cubic centimetres $= 7$ ounces were consumed.

Of solution of citric acid and nitrate of silver (2 per cent. silver and 2 per cent. citric acid) the consumption amounted to 48 cubic centimetres $= 1\frac{1}{2}$ ounces per square foot.

4. Water for washing after the development and intensification per square foot, 2 litres $= 3\frac{1}{2}$ pints.

5. Fixing solution, cyanide of potassium,

* Photographers in making estimates for job work will find this a very useful aid.—Ed.

1 : 25 per square foot, 100 to 150 cubic centimetres = 5 ounces.

With a more diluted solution, 180 to 200 cubic centimetres = 7 ounces.

6. Water for washing after fixing, per square foot, about 17 pints.

7. Varnish, per square foot, 7½ cubic centimetres = 2 drachms.

8. Albumen solution for preparing plates (the white of 1 egg, to which is added 10 cubic centimetres of ammonia and 5 drops of carbolic acid, and well shaken); 8 cubic centimetres of this are diluted with 100 cubic centimetres of water. Of albumen solution I use 25 cubic centimetres = 6 drachms per square foot.

The consumption of chemicals for portraits must be nearly the same.

For reproductions and similar work, the consumption of developer and intensifier is greater.

**Consumption of Hypo** per sheet, 4 to 5 grammes = 70 grains.

**Consumption of Intensifier** (*see* Consumption of Chemicals).

**Consumption of Nitrate of Silver in the Positive Process** is, according to Nickel, $\frac{1}{1\frac{1}{4}}$ of an ounce per sheet of albumen paper; according to Meike (Vogel's *Handbook*, page 136) = 33 grains per sheet when the bath is old, and 40 grains per sheet when the bath is fresh.

**Consumption of Salt of Gold in Toning** is, according to Davanne, ½ grain per sheet. In making the toning solution, 1 grain per sheet should be calculated.

## HOW TO MAKE A CIRCULAR BACKGROUND.

I HAVE just finished a circular background for myself that is very light, cheap, and soon made, and which is as follows: Take two pieces of felloes bent for the hind wheel of a buggy; spring them out so they will span about five feet; tenon the ends for the corner posts; let the posts run past one inch; frame strips in between once in six or eight inches; take the heavy brown paper for sheeting up buildings; tack on inside two thicknesses, breaking joints; now take thin brown paper, and glue strips over the last joints; mount on four table casters; paint one coat of lead or brown, and it is ready for use. Cost, one-half day's work, and $2 for stock. *Is very light*, and easy to handle.

L. M. WHITNEY.

## BE CAREFUL HOW YOU BUY.

SEVERAL of our correspondents have sent us a circular from which we make the following tempting extracts:

ONLY $5.00. ONLY $5.00.

### THE PHOTOCHROMOGRAPH,

*A Novel and Superb style of Coloring Photographs.*

A NEW INVENTION.

ON RECEIPT OF $5.00 we will furnish instructions which will enable any man, woman or child to color photographs in a very beautiful style. This beautiful style is now used by some of the most eminent colorists in the country, and to its use they owe their great reputation.

The process is purely mechanical, requiring no artistic skill whatever. Consequently the most inexperienced hand may become a successful colorist. The mode of applying the color is so simple and easy, that one person can color from fifteen to twenty photographs in a day at a mere trivial expense. We can safely say the Photochromograph is unsurpassed for brilliancy and softness, possessing all the richness of an oil painting. It is destined to take the place of water color work, as the attendant expense and labor is so much less. This method of coloring so closely resembles the Porcelain or Ivory miniatures, and the effect produced is so exactly like that obtained on Ivory, that it is only by those who have had great experience in coloring that the difference can be detected. If you have ever seen the enamelled glass pictures, you can form an approximate idea of the Photochromograph. We find in most colored photographs the want of force and lifelike character. In our new method of coloring every delicate shade and gradation of tone is preserved from the highest light to the deepest shadows, giving a most pleasing effect and having the appearance of a very delicate manipulated painting. We have been and are now engaged in making this beautiful style of picture in this city, and append a few names of the prominent citizens of taste and culture recommending the work.

Parties writing for the secret will receive

printed instructions and full description of paints, oil, &c., necessary to be used in producing the effect. Great pains will be taken to make everything plain and pointed, so there can be no possibility of a mistake, as our success depends on your success.

We are prepared to color for those who wish such work, as some would rather send us the Photo. to color than do the coloring themselves; for the benefit of such, we give directions and price-list below.

We are asked, "Is this secret safe to buy?" and in answer would say, if you *believe* that any such assertions as are made in the circular can have any foundation in truth whatever, you would experience the peculiar pleasure of knowing what it is to be "taken in" by making a purchase. The sum required will secure you the *Philadelphia Photographer* for a year, and we believe it will do you the most good. No "mechanical" process for coloring pictures can be good.

If we are not wrong, we believe the picture advertised is made on glass. A collodiochloride having in it a mixture of a white pigment is flowed upon the glass, dried, printed under the negative, and colored roughly. What we have seen are simply abominable, and tend to degenerate rather than elevate the art of photography.

## A TEXAS FORMULA.

GENTLEMEN: As I always see something in your monthly, from some of the fraternity, that is useful as well as interesting, and some of the brothers' methods of making good photographs, &c., I will endeavor to give you my method of making photographs in as few words as the case will admit of, and should it prove of any value to any of the fraternity I will feel that I am amply paid for my trouble.

Respectfully, A. FITCH.

I make my silver bath for the negative 35 grains strong, and iodize with potash in the usual way, and my developer of iron, acetic acid, and alcohol, varying in strength as the case may demand; then I clean my glass well and expose the plate to suit the circumstances, then fix and preserve the negative until I print, which I do as follows: I make my paper bath 35 grains strong to the ounce of solution or water; then to each ounce of solution I put 5 grains of crushed sugar, 2 grains of pulverized alum, then add to the whole mixture one-fourth to one-half of an ounce of strong spirits of ammonia, set it in the sun and let it precipitate for one or two hours, filter till clear, and it is ready for use. I float the paper 40 or 50 seconds, dry and fume 8 or 10 minutes; I do the printing then in the usual way: wash the prints in several waters, adding some salt to the first water; and my toning bath is made as follows: 15 grains chloride of gold to one quart of water for the stock solution; take from that 2 ounces to 18 ounces water, make quite alkaline with common washing soda, add to that 1 ounce of fine table-salt and ½ ounce alcohol, and tone the pictures; when toned enough wash in one water and fix as follows: 5 ounces hypo soda, 20 ounces water, ¼ ounce alcohol, not more. The pictures may turn very red while fixing, but will come all right before dry. Be careful not to overtone. The rest of the process I will not mention, as it is so generally understood. This has proved the most successful formula to me for all kinds of weather and lights; and for six years I have travelled in Texas, have worked in tents, old houses, by all kinds of lights, and think I know something about the troubles a photographer has to encounter. I am having a new house built at Cereto, Texas, and will send you some prints from the first work done in it, made by this process, which will be in about one month and a half. A. FITCH.

## A GOOD SIGN.

A SHORT time ago, while enjoying the pleasure seldom afforded us of a leisurely walk, we came upon a photographic establishment, over the door of which was a sign reading, viz.: "*Established and in successful operation since* 1860." The thought occurred to us, "Well, that is a great deal to say; thirteen years 'in *successful* operation.' Let us go in and learn the good man's secret, and communicate it to our readers, many of whom are complaining to us of their want

of success." We accordingly entered, and being pleasantly received, we inspected the whole establishment, and we discovered the secret. Would it do you any good to know it? Well, in the first place, everything was kept clean, and neat, and in order. Good, but not extravagant, apparatus was used; the best of chemicals were employed; the employés were drilled into habits of cleanliness and carefulness; they were well treated and well paid, and the most of them had worked there side by side for several years. The whole place had a sort of a feeling of good-will about it, and the resulting work was of course excellent. The prices charged were also above the N. P. A. scale. The proprietor told us that from the beginning his effort had been to excel in his work, to be courteous to his patrons, and yet to maintain his professional dignity, and that, he thought, was why he had been "in successful operation since 1860."

## A HOMEMADE BACKGROUND.

BY T. C. HARRIS.

A good cheap background for "Rembrandt" heads can be made by gluing together three or four layers of pasteboard, so as to make a large heavy card about five feet square. This is to be cut into a perfect circle five feet in diameter. Over one or both sides of this paste one thickness of common muslin; when dry cut out of this circle a triangular piece with the point of the triangle exactly in the centre of the card. The base of this triangle will be at the edge of the circle, and the width will govern the concavity of the background when finished. Now bring the edges of the cut together, giving sufficient lap, and rivet firmly with ordinary copper rivets placed about two or three inches apart; around the edge of the whole tack a wooden hoop, to give stiffness. Afterwards paint the desired shade on the inside, and mount on a light wooden frame or an old head-rest. This makes a very good substitute for the ready-made grounds, and is especially recommended to those whose supply of "stamps" is not sufficient to buy one.

## MATTERS OF THE

*Membership* costs $2; annual dues, $4. Life membership, $25, and no dues.

*All remittances* of back dues, and fees, and dues for new members should be made to the Permanent Secretary, Edward L. Wilson, Seventh and Cherry Sts., Philadelphia.

*Life Members.*—The following have been made life members by the Executive Committee: E. M. Collins, Oswego, N. Y.; J. C. Potter, Elyria, Ohio; A. M. Allen, Pottsville, Pa.; J. B. Silvis, Wyoming Territory; John Dean, Worcester, Mass. Instead of five, there should be *five hundred.*

The following is a list of the generous contributions so far received by the Permanent Secretary for the removal of the debt of the Association:

| | |
|---|---|
| D. W. Boss, Mechanicsburg, Pa., | $ 2 00 |
| J. Ulke, Washington, D. C., | 5 00 |
| G. B. Spencer, Flemington, N. J., | 7 00 |
| Taylor & Brown, Philadelphia, | 5 00 |
| A. Marshall, Boston, Mass., | 10 00 |
| R. B. Lewis, Hudson, Mass., | 2 00 |
| C. C. Schoonmaker, Troy, N. Y., | 5 00 |
| L. W. Colby, Manchester, N. H., | 2 00 |
| G. W. Butler, Westerly, R. I., | 2 00 |
| L. Vanloo, Cincinnati, Ohio, | 4 00 |
| E. D. Evans, Titusville, Pa., | 1 00 |
| J. D. Byerly, Frederick, Md., | 7 00 |
| J. H. Reed, Clinton, Iowa, | 2 00 |
| H. Noss, New Brighton, Pa., | 2 00 |
| W. P. Slee, Poughkeepsie, N. Y., | 7 00 |
| F. Thomas, Columbia, Mo., | 5 00 |
| J. G. Vail, Geneva, N. Y., | 3 00 |
| W. H. Allen, Detroit, Mich., | 5 00 |
| L. Moulton, Beaver Dam, Wis., | 5 00 |
| N. S. Leeman, Haverhill, Mass., | 5 00 |
| S. T. Speechly, Manchester, Mich., | 5 00 |
| Miss A. H. Peirce, Springfield, N. Y., | 2 00 |
| W. R. Phipps, Lexington, Ky., | 7 00 |
| W. S. Judd, Carthage, Mo., | 2 00 |
| J. Loeffler, Tompkinsville, N. Y., | 7 00 |
| C. A. Rutledge, Rockville, Ind., | 2 00 |
| R. H. Blair, Smyrna, Del., | 5 00 |
| E. Goddard, Woonsocket, R. I., | 10 00 |
| J. P. Whipple, Whitewater, Wis., | 5 00 |
| R. J. Chute, Lynn, Mass., | 6 00 |
| J. B. Silvis, Wyoming Territory, | 5 00 |

| | |
|---|---|
| E. F. Everett, Mankato, Minn., | $3 00 |
| W. Nims, Ft. Edward, N. Y., | 5 00 |
| F. M. Crane, Ogdensburg, N. Y., | 1 00 |
| C. Anderson, Harrodsburg, Ky., | 4 00 |
| R. G Murphy, Wabash, Ind., | 5 00 |
| J. A. Rider, Wellsville, N. Y., | 3 50 |
| S. S. Richards, Carthage, N. Y., | 2 00 |
| A. J. Fisher, Towanda, Pa., | 1 00 |
| Lake & Holcomb, Garrettsville, Ohio, | 2 00 |
| George Moore, Seattle, Wash. Territory, | 1 00 |
| P. F. Finch, Lebanon, Ohio, | 5 00 |
| W. C. North, Utica, N. Y., | 10 00 |
| J. Barhydt, Rochester, N. Y., | 20 00 |
| Patton & Deitreich, Reading, Pa., | 2 00 |
| L. H. Spalding, Otto, N. Y., | 5 00 |
| E. E. Henry, Leavenworth, Kan., | 5 00 |
| T. H. Rutter, Deer Lodge, Montana, | 5 00 |
| J. P. Spooner, Stockton, Cal., | 5 00 |
| C. S. Cooper, Clyde, N. Y., | 3 00 |
| J. Mullen, Lexington, Ky., | 5 00 |
| J. W. Wykes, Quincy, Ill., | 1 00 |
| R. Uhlman, St. Joseph, Mo., | 1 00 |
| W. Langdale, Wingham, Ont., | 3 00 |
| T. P. Varley, Baltimore, Md., | 1 00 |
| | $240 50 |

It may be well to say that this will not pay one-tenth of the debt. Will it not be folly to undertake more unless it can be paid for? For the credit of our Association let us keep out of debt.

## The Value of Instruction, and the Practical Result.

A CORRESPONDENT writes us as follows:

I inclose two pictures, one from my first, and one from my last negative.

A little less than three years ago I purchased stock and apparatus, of Wilson, Hood & Co., and embarked among the photographic breakers with scarcely enough knowledge of the business to focus on; I of course ran aground the first tack, and have been in shoal water many times since, but, having the *Photographer*, *Mosaics*, and many other valuable books for lighters, I have succeeded in keeping afloat nicely.

The moral is obvious.

Yours respectfully,

E. A. HEERMANS,

Hyde Park, Scranton, Pa.

One of the pictures sent—the oldest one—possesses all the density of a door-plate, and the position is awkward and ugly, while the other one is a beautifully executed cabinet picture, exquisite in chemical effect, artistically posed, doing great credit to Mr. Heermans. There are *many* who "have been in the business twenty years" who cannot begin to compete with Mr. Heermans. "Journals and books are no use to them. They know it all, and can teach the men what write." Comment is unnecessary. As Mr. Heermans aptly remarks, "The moral is obvious." Is it not?

## "The Photographer to his Patrons."

WE still manufacture this useful little leaflet for the purpose of advertising your business among your customers and for instructing them as well. We can supply them in English, German, and Spanish, and in many attractive styles. Samples supplied free. We do not think a photographer can use a better method of advertising, for they not only bring your business before the public, but they tell the public of your interest in them, of your enterprise, and show that you understand what you undertake. The cost is little, one new customer often repaying you for the whole cost of one thousand of *The Photographer to his Patrons.*

Please read the new advertisements this month.

## THE CENTENNIAL.

WHAT shall I get up for the Centennial? is a query which every photographer should ask himself now, day by day, and prepare for a substantial answer. The Centennial Exhibition is not to be an ordinary one nor an extraordinary one, such as we have each year under the auspices of the National Photographic Association, but a *very* extraordinary one, where your best work should be gotten up and shown in elegant style. The Centennial Committee are disposed to treat photographers very favorably and to have a hall especially constructed for the art of photography. This being the case let us not fail to do *our* best, including liberal subscriptions to the stock.

## PHOTOGRAPHIC MOSAICS, 1874.

We come to our readers this year with our *ninth* issue of *Mosaics* with more than usual satisfaction: first, because many good friends have evinced their willingness to help us in our efforts to teach others the right way to succeed in their work—a spirit which cannot be too highly praised—by sending us practical articles for the pages of *Mosaics;* and, secondly, because the papers they have sent are so varied in subject and so very good. They cannot fail to be very useful and have good effect upon the readers of them, if they are read with half the care and thought which we know must have been expended in their production.

That you may judge of the correctness of what we say we append a list of the

CONTENTS.



*Photographic Mosaics*, as most of our readers know, is an annual record of photographic progress, and contains 144 pages, well crowded with practical photographic suggestions, &c. Its cost is only 50 cents per copy, in paper cover, and $1.00 in cloth, thus making it the cheapest photographic work ever published. The issue for 1874 will be ready by the time this reaches our readers, and we hope for it a welcome quite equal to that given to its predecessors.

*Mosaics* is a book for those who know how, but forget. Forget not to get it soon.

## PRIZE OFFER FOR SOLAR NEGATIVES.

Mr. Albert Moore, the eminent solar printer of this city, authorizes us to make an offer of a gold medal the same size as given before, for the best solar negative sent him, under the following conditions:

1. The negatives must be on either half or whole size plates.

2. They must be delivered on or before March 15, 1874.

3. The subjects must be ladies or children; no men.

4. No negative must have more than three figures. All negatives sent are to be the property of Mr. Moore, whether chosen or not.

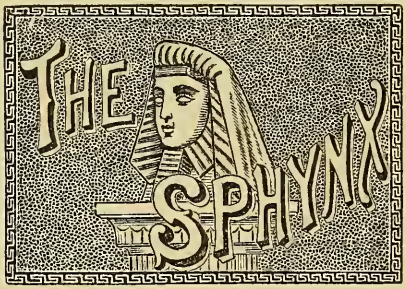
5. The best five negatives will be chosen from the lot and from them prints will be made. The prints will then be subjected to the opinion of five practical judges, who shall make the award for the one which they agree is best.

6. Each competitor of the five will receive gratis a copy of the successful picture.

7. Full instructions for making the negatives may be had in pamphlet form, and all other needful information by applying to

Albert Moore,
No. 828 Wood Street, Philadelphia.

We hope our best solar negative makers will go into this matter earnestly.




SPHYNX has languished for a month or two. We hope for good answers to the following

*Queries.*

Some time since I had a silver bath that caused me much trouble, and I thought to fuse it, a thing I had never done, although working at photography a number of years. Everything proceeded well up to the formation of the miniature volcanoes, when the mass became volcanoes in fact, all but the stones and lava; actually emitting fire and smoke, or a something like smoke, and cracking like gun-caps. It was a proceeding I had made no calculation for, and as the saying is, I "let her fizzle." When that part of the interloped programme was through, I increased the heat in anticipation of melting the silver, but "nary" fuse. I had left a gray, brittle mass, insoluble in water. How shall I proceed to regain my silver?

QUERIST.

1st. Please let Sphynx tell the best methods of preparing nitrate of aluminum; the kind of alum best suited for the purpose.

2d. If a solution of nitrate of calcium be added to a saturated solution of alum, what is the precipitate and what the supernatant fluid?

3d. The easiest method of preparing nitrate of lime?

I can find no account of the above compounds in any chemical or pharmaceutical work at my command. I have been experimenting some in that direction. I made my nitrate from white marble and nitric acid, evaporating to fusion and redissolving in water. I used ammonia alum because I could get none other. I added the nitrate of lime to a saturated solution of alum, and took the solution remaining and crystallized, which I supposed was nitrate of aluminum. I found considerable drying necessary to produce crystallization. I found it to form needle-like crystals, very deliquescent, having a decided acid reaction, readily coagulating albumen, and that precipitation of a gelatinous character took place upon the addition of ammonia. The precipitate first formed by the reaction on alum I found to coagulate albumen when in solution, but it was sparingly soluble in water, and I concluded that it must be a sulphur salt of calcium. I wish to know if I was right, and all the whys.

F. M. SPENCER.

CAN you illustrate any process whereby I can retouch at night? I have not tried any way as yet, but would like some practical suggestions to begin with.

McC.

HOW can I renovate an old silver solution, with nitrate of ammonia in it, without smoking me out of house and home?

C. A. B.

CAN Sphynx give me a good reliable formula for printing solar prints on painters' prepared canvas? And is there any canvas already prepared for solar printing?

J. A. W. PITTMAN.

## SOCIETY GOSSIP.

(For the time of meeting of American Societies, see the "Society Calendar" in "Specialties.")

THE societies have about all resumed their usual sessions, and are having considerable interest taken in them. We shall be glad to receive from them all a *full* report of their proceeedings, from which to make such selections for our "Gossip" as will be of most interest and value to the general reader. We hope *all* our societies—and may they largely increase—will make it their effort *to be useful* in the great work of advancement now going on in our art at a higher speed than ever before. Other branches of science and art have been holding the ladder up more and more perpendicularly against us. Yet we are climbing steadily and surely up! *up!* UP!

PHILADELPHIA (Philadelphia), Nov. 5th. —The Secretary presented a large roll of

prints and a box of stereo slides, lately received in exchange from the Photographic Society of Paris.

The election of officers to serve for the ensuing year resulted as follows:

*President.*—Mr. John C. Browne.

*Viee-Presidents.*—Mr. John Carbutt, Mr. George W. Hewitt.

*Treasurer.*—Mr. S. Fisher Corlies.

*Recording Secretary.*—Mr. Ellerslie Wallace.

*Corresponding Secretary.*—Mr. F. T. Fassitt.

The President called attention to the fact that the Photographic Society of Paris had sent to the Society a number of circulars relative to a photographic exhibition to be held at Paris, May 1, 1874, in which full directions were given for the forwarding of goods destined for this exhibition, and other details in relation to it.

The President exhibited a 20 x 24 bath for landscapes, which had been sent to the Society for inspection, by Mr. R. Newell, of this city. The bath was made of wood, coated with a composition of Mr. Newell's invention, and is both water-tight and impervious to nitrate of silver. Mr. Newell also sent a dish coated with a compound which had resisted nitric acid left for two weeks in it.

Mr. Partridge exhibited a number of stereo slides made on dry emulsion plates with excess of silver. The exposures were short, and the prints very brilliant, clean, and full of detail. As dry work, the series was pronounced unsurpassed by any ever exhibited before the Society. Mr. Partridge also exhibited an ingeniously contrived head for a field tripod, made of brass, and capable of being folded up somewhat after the manner of a folding fan. (See page 554.)

Mr. Pettit exhibited a very fine collection of plain and colored views of the Vienna Exposition, and objects of interest in Venice.

A considerable time was spent in examining the superb roll of exchange prints sent by the Photographic Society of Paris. The series comprised portraits of all sizes, from *carte* size to imperial, groups, landscapes, carbon prints, transparencies, and bitumen proofs. The manipulation was exceedingly fine, and the prints were much complimented and admired by the members of the Society.

Pennsylvania (Philadelphia) Nov. 17th.—The meeting was held at the rooms of Messrs. Broadbent & Phillips, 1206 Chestnut Street.

The President, Mr. Moore, being absent, Mr. H. C. Phillips presided.

The Secretary announced having received and answered a communication from the Vienna Photographic Association.

Messrs. Louis Husson and H. E. Gabriel were elected members.

The question of granting prizes to members for the best plain photographic work was discussed, and the following was agreed upon: That this Association do offer a monthly prize, also a grand prize at the end of the year, for the best result offered during that time.

The following members were appointed a committee for next month, with the following instructions:

*Committee.*—Mr. John Carbutt, William Langenheim, Albert Moore. That they shall select the size of photograph and style thereof for competition, and that for the best, they give a gold piece properly engraved, not larger than a three dollar gold piece, with the instruction to the competitors that the successful one shall furnish a duplicate copy to each competitor.

Mr. Rhoads exhibited two card photographs that had been cut with a Bergner cutter, wet at the same time, and mounted on Slee mounts, passed through an ordinary wringer, showing a difference of one-sixteenth of an inch longer in the faces, although both were from the same negative. The difference was due to the two being printed differently on the grain of the paper; one contracting, the other expanding, according to the grain of the paper.

A general discussion was here held on the merits and demerits of strong developers being used. Mr. Krips stated that at their establishment (Draper & Husted) their developer was 1 ounce of iron, same amount acetic acid, to 40 ounces of water; they allowed more time in exposing, never used alcohol, except the bath should contain it, and then very sparingly.

Mr. Schreiber stated that he used a standard developer of 2 ounces of iron to the quart, and controlled intensity by means of collodion. He uses two kinds, one overiodized, the other overbromized; by mixing as his subject requires he obtains any result that he may wish.

Mr. McMullin exhibited a stereo plate that had been exposed, then cut, one-half being developed with a strong developer, the other with a weak one; the strong being generally considered the best; but this certainly would not apply in the case of a portrait negative.

Messrs. Broadbent & Phillips received a vote of thanks for the use of their rooms.

On motion, adjourned, to meet at the rooms of Messrs. Trask & Bacon, 40 North Eighth Street, December 15th.

New England (Boston) Nov. 7th.—Our correspondent "Vox" writes us as follows:

"The subject of discussion was 'Skylights' and 'Lighting the Sitter.' Several members gave most valuable instruction. Mr. Southworth maintained that the worker under the light must first become familiar with the human face; that there was in fact something in all faces which he would call the *poetry of the human face*, which must be studied and learned before *any* particular light would be valuable. Mr. Black said more attention should be given the matter of making the sitter *feel at home*, thus enabling the *operator* to obtain a more natural expression. Mr. Burnham illustrated his idea of a skylight by drawings, and Mr. Foss invited all to call and inspect his peculiar mode of lighting the model, for he believed none treated the subject as he did.

Mr. Sonrell donated to the Society a large number of British photographic journals, for which the thanks of the Society were tendered.

Mr. Loomis promised to give a lecture on the next meeting night (Mr. Loomis and Mr. E. L. Wilson were the originators of the grand organization known as the National Photographic Association), when the rooms are expected to be filled with eager listeners. And here I wish to state Mr. Southworth was surprised to find in the report of the National Photographic Association (from Buffalo), a statement that he was not pleased with the work of the Convention, when in fact *he never enjoyed himself better*, and Messrs. Black, Brown, Barry, Rand, and many others from Boston gave a glowing description of the gathering. Mr. Benjamin French (of the firm of Benjamin French & Co.) stated the success at Buffalo was without a parallel in the history of the helio art, and that Mr. Baker, the Local Secretary, had shown himself a perfect Briareus, for to him was largely due the success of the Exhibition, undertaking it, as he did, at the last moment. I find many photographers were pleased at the bold stand taken by Mr. Carbutt in his exposition of the enlarging process, and express their wish that he may always be found at the front *at the right time*. Here I will state that the fraternity of this section feel proud of the magnificent display made by the stock-house of Benjamin French & Co.; this firm having on exhibition many thousand dollars worth of the Voigtlander and Darlot tubes and lenses, of which they are the agents, and all concede that it was the best display of tubes and lenses ever made in this country. And now, Mr. Editor, I wish to inform you that many have expressed a wish to have a full report of the great Convention at Buffalo in a bound volume for future reference, and hope you will publish it by subscription, as that will enable you to tell how many will be wanted. Let all who desire a copy forward you the amount of the book, so you will be sure of your pay before you undertake the job. Therefore, I hope you will start the ball rolling. Let us know in your Journal what you think about it, and let all the secretaries of the different societies get up a list of names of subscribers and the *money at the same time*. Every one engaged in photography should have the proceedings of the Convention *bound*. No more at present.

Photographic Institute (Chicago), November 3d.—Mr. Charles Gentile was unanimously elected a member of the Institute.

Mr. Green volunteered to read a paper before the Society on the evening of the first Monday in January, 1874, subject,

"Art Principles as Applied to Photography;" and would, with the assistance of the members, illustrate the same with the magic lantern. It was further, on motion, decided that all the members of the Institute be expected to furnish transparencies and papers relative to the subjects of light and shade, posing, &c., for that occasion. On motion, Mr. Green was appointed a committee of one to arrange for that evening.

The subject for discussion for the evening being announced ("Transparencies for Enlargements"), Mr. D. H. Cross kindly explained the process by which they were made, as follows:

Mr. Cross said: Flow the plate with bromo-iodized collodion, such as ordinarily used; sensitize in the nitrate bath as usual; after which wash the sensitized plate under the tap in the dark-room about two minutes, and flow plate with coffee preservative, made as follows: Coffee (Mocha or Java), roasted and ground, ½ oz.; loaf sugar, ½ oz.; water, 10 ozs. Boil the water, then add the coffee and sugar; let cool and filter perfectly clear; after flowing the plate with above it must be carefully dried. The best method for drying is that given by M. Carey Lea, on page 185, vol. v, *Philadelphia Photographer;* for the benefit of those who can not conveniently refer to it, I give it briefly. In a box of required size fit a rack, to prevent contact of the surfaces of the plates. When the desired number of plates have been prepared and placed in the box, place a saucer or small evaporating dish, containing 2 or 3 ounces of sulphuric acid, underneath the rack; close the door of the box and leave the plates in this box twelve hours or more before using them. This method of drying insures perfect freedom from moisture. These plates will keep in this sensitive state for years when properly prepared and protected from light and moisture. When dry, place this plate, film down, on the negative from which the transparent positive is to be made, in a common printing-frame, and expose to diffused light from two to ten seconds, as experience may dictate; rinse under the tap in the dark-room a few seconds, and develop with pyrogallic acid, made as follows: Pyrogallic acid, 40 grs; citric acid, 30 grs.; acetic acid, 2 ozs.; water, 20 ozs.; flow the plate with above and drain off into an ounce bottle; now add two drops of a 20-grain solution of nitrate of silver; in a few seconds the image should appear; when the developer has become red it should be washed off the plate and the same process repeated, until the required depth and detail is attained; wash well and fix in hypo-sulphite of soda, to which has been added a few drops of a solution of chloride of gold; wash well and dry, and if required, protect with any good, well-filtered varnish or albumen.

These plates are also well adapted for views, as far as my experience goes; none excel them in any respect. They are reliable, easily prepared, and at hand. When these plates are used for views, I prefer the alkaline development, especially when sensitiveness is an object. I have been very successful with these plates (when the alkaline development has been used) in making pictures of animals, &c. Ordinarily I would expose the plate about twice as long as would be required by the wet process. The greatest requisites are good water, thorough washing, clean hands and vessels, a little experience, and a little common sense. If some of the fraternity will try this process, I have attained the object for which I have arranged these few remarks.

Mr. J. K. Stevens exhibited a transparency developed with iron developer, which was admired as possessing peculiar merit.

Mr. Hall exhibited an enlargement, 14 x 17, from a card photograph; the positive developed with pyrogallic development, and the negative developed with iron. This picture was much admired, and it would seem that in Mr. Hall's hands this method can be worked as successfully as any other mode of enlargement.

Mr. Hall said that he was very sorry that while the subject of enlarging had been so thoroughly discussed so few of the members had exhibited enlargements, and hoped that in the future those subjects requiring illustration in that way would be better illustrated with specimens of work, for we can at all times much better explain a method by showing samples of work executed by that method, &c.

Mr. Cross volunteered to read a paper on "Developer" at the next regular meeting, and all the members were requested to be prepared to take part in the discussion of that subject on that occasion.

Brooklyn Photographic Art Association (Brooklyn, N. Y.), Oct. 13th.—This Society has at last obtained a proper President, Rev. Dr. Chas. H. Hall having been installed as such this evening. Vice-President Hannay made an address and was responded to by Dr. Hall.

Mr. Frank E. Pearsall exhibited his new camera, and gave all the liberty to use it as a model.

Mr. Berger read a paper on "Zincography," and Mr. Williamson made an address on the "Decline of Art."

Mr. Abraham Bogardus, President of the National Photographic Association, was present and made an address.

The meeting then took a social turn, and Miss Williamson gave a few illustrations in drawing on the screen, and a recitation.

Music and a collation followed; the whole concluding with a vote of thanks to Mr. Williamson, at whose galleries the meeting was held.

Chicago Photographic Association (Chicago), November 5th.—After opening business, Mr. H. L. Bingham, late of Kalamazoo, Mich., on his way to San Antonio, Texas, being present, was called on for remarks. Mr. Bingham stated that the duties of preparation for his departure had occupied his whole time, and he had given little attention to photography; he was glad to meet the members present and would listen to the proceedings; possibly asking the indulgence of the Society's attention if he found his experience of any value on the subjects under discussion.

The subject of "Enlargements" being in order, Mr. Hesler said: I do not think as yet we have any process for enlargements as good as the solar, and a solar print made skilfully from a good solar negative has not as yet been excelled; but many times we find it necessary and profitable to make enlargements other than by aid of the solar camera, and in such cases I find the Edwards process most satisfactory.

Messrs. Abbott and Greene did not agree; the latter saying that he did not think the results were better with this Edwards process than with collodion, the coffee dry process, or Carey Lea's emulsion formula, and direct printing in making the transparencies is used most successfully.

A member requesting information as to the burnishing process, the President asked those who were producing this finish to give their methods.

H. L. Bingham: I have used the Sibley bed-plate press, secured to a table, with a hole cut through beneath the press, and heating the bed-plate with an alcohol lamp. I secure, I think, as fine a surface as that obtained by the Weston burnisher.

Mr. Hesler: I find the Excelsior roller press better adapted to burnishing than the Sibley, for the reason that it does not accumulate the fine dust which tends to scratch the surface of the picture. I can keep the Excelsior perfectly free from this annoyance.

Mr. Bingham: I found that a small piece of steel plate, slightly concave, fastened to the bed of the Sibley press, was a great advantage, and that to roughen the roller lengthwise by drawing a file along its surface greatly assisted in the process of burnishing. Regarding the preparation for preparing the surface for the finish, it has been my practice to use soap of some kind; Mr. L. G. Bigelow, of Grand Rapids, Mich., is using a thin wash of gum arabic and water; brushing it, not only over the surface of the photograph, but over the card-mount also; he tells me that in this way, aside from its benefit in preparing the surface for a fine finish, he can use the enamelled surface cards without trouble.

Chas. Aiken: Has any one present found, or can they suggest, a remedy for the removing of the ink used in touching out spots? This occurs during the process of burnishing, and cannot again be successfully put on the highly glazed surface.

H. L. Bingham: Has any one had pictures returned to be reburnished, they having become badly soiled by handling?

Mr. Hesler: To remove the finger-marks, &c., on the burnished surface, I take a soft cloth and, breathing on the soiled surface of the picture, gently rub it; this removes all

the marks and leaves the surface as clean as when fresh from the press; for a preparation for the surface to burnish, I use: White castile soap, 3 grains; alcohol, 16 ounces.

H. L. Bingham: I noticed in your minutes of last meeting a discussion on the blister troubles, and I wish to say a word regarding them. I have never been troubled except when using the double gloss paper; noticing that a photographer of my acquaintance using the same paper was not troubled with blistering, I asked him how he avoided it. He said he had no formulæ other than I was using, except in silvering he used an old negative bath; I tried it and found the trouble ceased. I take an old negative bath and add a little hydrochloric acid, filter out the deposit, then neutralize with liq. ammonia, filter and use. I make the bath thirty grains strong, and silver until the paper lays flat on the solution.

Mr. Hesler: I would state that in addition to my methods as given at previous meetings, I always add a little sal soda to the hypo soda solution.

Mr. Abbott: It was stated by a member at our last meeting that salt as used in our solutions for washing and toning injures the paper; this I cannot admit, for using the salt in my formulæ, I can show as fine results and as brilliant surface as any that can be produced.

Mr. Alfred Hall: A member of our Society present with us this evening, and who produces very fine work, tells me he is never troubled with blisters, but silvers his paper only fifteen to twenty seconds, and it strikes me that possibly long silvering has something to do with this trouble we are striving to control.

Mr. Klein: As Mr. Hall requests me to give my formulæ, I would say they are simple, and as follows: I use a plain silver solution, sixty grains strong; float the paper fifteen to twenty seconds, according to the weather; after the third washing I use a little acetic acid in the next washing; tone in sal soda and gold bath, and use salt after fixing, gradually weakening the salt solution.

A. F. Wells and Charles Aiken were elected members. The name of H. L. Bingham, San Antonio, Texas, was added to list of honorary members.

## Photography at the Annual Exhibition of the American Institute, N. Y.*

Our absence from home compelled us to confine our visit to the Annual Exhibition of the American Institute to a couple of hours only, and then in the evening of the day before it closed. The display of photography was in excess of any former one, and very creditable indeed to those who contributed to it. Yet withal it is not as great as it should be. That whole art room, erected for photography, should each year be *filled*, so that the photographs could not be "peppered" and spotted here and there with chromos, drawings, sewing-machine work, &c. *Next year let them all be crowded out.* The parties who exhibited made a fine display of their best work; they show that they improve constantly, as follows:

Scovill Manufacturing Company, New York, American Optical Company's apparatus, Morrison lenses, dreg bottle, &c.; L. Dubernet, New York, frames, passe-partouts, &c.; German Photographic Society, New York, the handsome collection exhibited at Buffalo; and Photo-Relief Printing Company, New York, a fine collection of Woodburytypes on paper and glass; also photographs of all varieties and styles, embracing all the newest and best examples of colored and plain work, by the following photographers: New York, C. D. Fredricks & Co., Schwind & Kruger, A. Naegeli, A. Jordan, G. A. Flach, E. & H. T. Anthony & Co., William B. Holmes & Co., W. Kurtz, G. G. Rockwood, W. R. Howell, and Baars & Spier; Brooklyn, Alva Pearsall and Mr. Richardson; Hudson City, A. B. Costello; Newark, J. Kirk; Long Branch, C. W. Pach; Jersey City, Theodore Gubelman; Niagara Falls, Charles Bierstadt and George Barker; San Francisco, C. E. Watkins.

It will be remembered that our old friend and correspondent, Mr. Charles Wager Hull, is the General Superintendent of the

* For list of awards see last page.

American Institute, and to his energy the success of this great annual exhibition is due—never a greater success than this year. We found him busy enough at his post, sometimes working all night, and must compliment him and congratulate him on his ability to manage so vast an affair with such satisfactory results following.

## NOTES IN AND OUT OF THE STUDIO.

BY G. WHARTON SIMPSON, M.A., F.S.A.

*The Crawshay Prizes—Splitting Films—Kaolin for Discolored Printing Baths—Cleaning Glasses—Toning Powers of Gold—Photographing the Invisible.*

*The Crawshay Prizes.*—I cannot but think it is matter for regret that amongst the masters of large-sized photographs which America undoubtedly possesses, that none have sent pictures to compete for the Crawshay prizes. After the last moment, and when the prizes had been awarded, some unmounted prints, which from a hasty glance appear of good quality, arrived from America, from a gentleman whose name I have not yet ascertained. Another year Mr. Crawshay will give a similar series of prizes, with slight modifications, and I shall hope to see both America and Continental Europe enter the lists of competitors. This year only Englishmen have competed, and the prize-takers are as follows: for the best three heads on plates 20 x 16, the faces measuring eight inches, Messrs. Robinson & Cherrill take the prize of £50, and Col. Stuart Wortley the second prize of £25. For the best three heads on 15 x 12 plates, faces four and a quarter inches, Mr. Valentine Blanchard took the first prize of £25, and Messrs. Robinson & Cherrill the second prize of £12. For the best enlargement Mr. B. J. Edwards took the only prize of £25; some of his most charming enlargements being from American negatives. There were many fine pictures sent to compete for all the prizes, and of course there are many disappointed competitors, and as usual some who consider themselves peculiarly ill-used. Col. Wortley, who sent some very fine pictures, was disqualified for the competition for 15 x 12 pictures because his pictures all measured 24 x 18, and the faces in all cases exceeded the prescribed standard. He protests against this disqualification, because he thinks that the phrase "not less than 15 x 12" and "not less than 4¼ inches" should include any amount of excess, which to carry out the argument *ad absurdum*, would permit pictures the size of a house, if they could be taken, to compete for a prize intended for 15 x 12 pictures. I presume, however, that disappointed competitors are often illogical, and should have some consideration in virtue of their disappointment. What a pity that in such competitions jurors cannot carry out the spirit of Dryden's line—

"They too had crowns who but endeavored well!"

*Splitting Films.*—A simple remedy for another occasional trouble, the splitting of films, was brought before the South London Society recently by Mr. W. Brooks. He says:

"Splitting of the collodion film on drying is a source of great annoyance to photographers in general at this season of the year, through not being able, perhaps, to give sufficient exposure, and being obliged to force the development on account of the inactinic power of the light, and various other causes too numerous to mention.

"I have for some time past been able to avoid this evil with the utmost certainty, which is very simple. I do not think it has ever been published.

"I have brought with me two plates this evening which I think will be a positive proof, to all, of its efficacy. It is well known that the part of the film which is free from the deposit of silver is the part that splits on drying. In the two plates that I have brought with me I have gone to extremes. In the first instance, I was not very particular in cleaning and polishing the plates (which goes a great way to cause the evil), then again I have given short exposure in a dull light, and forced the redevelopment, and the subject photographed was a piece of white cardboard in the centre of a black velvet focussing-cloth, the deposit of silver representing the card being in the middle of the plate, the black

velvet being free from deposit (bare glass), which would split and leave the glass under ordinary circumstances; but in this instance the whole of the film remains perfect in every respect after being rapidly dried by the fire (being another method of encouraging the evil).

"The remedy is this: after the plate has been developed, intensified, and fixed in the ordinary way, should any iridescent markings be seen in the transparent parts of the negative, which is almost a sure sign that it will split, stand the plate up on end to let all the surface water run off, so that it is not seen on the surface; but before any part of the film gets dry, take the plate and pour over it ordinary methylated spirits of wine—on and off—so as to wash out all the water from the film; it may then be set to dry without fear. If it is a very bad plate, it may be varnished first with a very thin varnish while the plate is still wet with the spirit, and dried rapidly by the fire, and then varnished again with the ordinary varnish in the usual way.

"The methylated spirit seems to restore to the film the elasticity which it originally possessed before the application of those powerful astringents the developers."

*Kaolin for Decolorizing the Printing Bath.*—Notwithstanding the existence of very simple and efficient methods of removing the color from old printing baths, there are some photographers who cling with tenacity to the old-fashioned kaolin. If the bath be kept strong enough, if a little alcohol be added in making it, and if the paper is excited in a sufficiently dark room, I don't think that discolored baths ought, as a rule, to exist; but as they do, they must be cleansed. The methods with permanganate, with chloride of sodium, carbonate of soda, &c., have all been described often enough, and everybody knows the old mode of using kaolin; but a correspondent sends me an improved mode of using it, which he describes as efficient and seems less troublesome than usual, therefore I place it before your readers:

"When my bath has been discolored, I have taken about one teaspoonful of kaolin, and placed it into the solution, shaken the bottle well, allowed it to remain about five or six hours, then filtered into another bottle (or, if going to work immediately, filter into the bath dish); when finished, put into the bottle the same quantity of kaolin, and one spoonful of white sugar, without shaking, and when wanted to work again I find my bath perfectly free from any discoloration. I do not know anything so simple, or anything so easy to keep the bath clear, the printing bath being a very troublesome thing."

*Cleaning Glasses.*—Amongst the various modes of cleaning glasses, here is one which is not, I fancy, sufficiently well known amongst photographers.

Probably the most efficient of all the mechanical agencies used in cleaning glasses is the oxide of tin, used in various art industries for polishing purposes. The particles of this material, although exceedingly fine, are very hard, sharp, and readily polish the surface of the glass by cutting it away, without, however, under ordinary circumstances, any scratching or injury. The most obstinately stained glasses, plates which have been used before for varnished negatives, may, by means of this material, be made quite as perfect as new glasses. The varnished films may be removed by the application of hot soda or potash solution, and then the moistened putty powder applied with a piece of woollen rag, steadily rubbing all over the plate, the result being that the old stained surface is removed, and a new surface laid bare. This method I recently saw used in Mr. Sarony's establishment at Scarborough, and has permitted of the use of an enormously large collection of old negatives which had before been regarded as so much useless lumber.

There is, it should not be forgotten, always the safeguard of albumenizing, by which glasses of doubtful cleanliness are made absolutely trustworthy. As, however, some photographers still object to this method of obtaining security, distrusting the effect of the albumen on the bath, methods of securing absolute cleanliness without the aid of preliminary coating will always possess interest for a large section of photographers.

*Toning Powers of Gold.*—I recently met with a paper which gave some details very

suggestive of the coloring powers of gold. Professor Faraday gives the following interesting facts: "Suppose that a leaf of gold, which weighs about 0.2 of a grain, and will cover a base of nearly 10 square inches, were diffused through a column having that base, and 2.7 inches in height, it would give a ruby fluid equal in depth of tint to a good red rose; the volume of the gold present being about the $\frac{1}{500000}$th part of the volume of the fluid; another result gave 0.01 of a grain of gold in a cubic inch of fluid. These fine diffused particles have not as yet been distinguished by any microscopic power applied to them." The amount of chloride of gold represented in the above-named quantity would be something less than half a grain. The statement manifestly suggests the fact that if all the gold in the photographer's toning solutions were actually deposited as a toning agent a very much larger surface should be colored than we ever found in practice, or saw recorded.

*Photographing the Invisible.*—A paper read at the British Association recently revives an old and interesting question, namely, the adiactinic qualities of sulphate of quinine. The object of the paper was to call attention to the property of disulphate of quinine and other fluorescent substances in arresting the transmission of chemical rays, his illustrations consisting of designs made on white paper by means of the quinine solution, and of course nearly invisible, and photographs of the same designs vigorously rendered; and also of photographs of glass vessels containing respectively black ink and colorless solution of the quinine salt, the image of the latter being as dark, or nearly so, as that of the vessel containing ink, whilst a similar vessel of water readily transmitted chemical rays, and gave a light image.

The subject is an old one, and various experiments in connection with it were recorded by Mr. Robert Hunt in his *Researches on Light* twenty years ago, who at that time found that a solution of the quinine salt impeded photographic action in but a very slight degree. The same fact was further elucidated in a series of experiments by Mr. Crookes a year or two afterwards. Various other experimentalists at intervals gave attention to the subject, without leading to any important practical issue. Four years ago, however, Professor Morren, in a paper read before the British Association, stated that he had found the quinine solution so efficient in arresting chemical rays, that a screen five millimetres thick, consisting of the solution confined between two plates of glass, would, whilst freely admitting illuminating rays, so effectually stop the chemical rays that it might with advantage be used as a substitute for yellow glass in the dark-room.

In Professor Morren's experiments a sensible thickness of the solution was employed, amounting, in English figures, to about three-sixteenths of an inch. The statement was definite, and, coming from an authority worthy of respect, was entitled to the consideration it at once received. It is scarcely necessary to say that the alleged fact was a most important one to the photographer, inasmuch as it would have permitted him to work with the light of day in his dark-room. It would have permitted him to illuminate the interior of his camera with daylight, allowing of screening various portions, without risk of injury to his sensitive plate. It would, in short, have possessed a variety of advantages, of which many photographers would have eagerly availed themselves. Unfortunately, the alleged fact was not verified on being brought to the test. At my request, Mr. Spiller, whose trustworthiness as a chemist and experimentalist all photographers know, undertook a careful re-examination of the question, making a series of precise experiments, the conclusions from which were in complete opposition to the statement of Professor Morren, and showed that a much thicker screen of the quinine solution was quite powerless in arresting photographic action.

Mr. Spiller's experiments were tried with solutions of the quinine salt of various strengths, from half per cent., the strength recommended by Professor Stokes for exhibiting fluorescence, up to five per cent. An ordinary commercial example of bromo-iodized collodion with iron developer, and the afternoon light of a dull October day,

were employed in the experiments. An exposure of a single second was sufficient to give a distinct image on the plate when the light had passed through a screen one inch thick of this solution, whether of the strength of one per cent. or five per cent. Professor Stokes, who has made the subject of fluorescence his own, writing to Mr. Spiller, at the same time stated that in the course of his experiments he had found that the quinine solution did not by any means stop all chemical action.

The vivid photographic image of a faint and nearly invisible design drawn in quinine affords a striking and readily appreciable illustration. Nevertheless, it is even doubtful if the result obtained be due to a fluorescent quality of the quinine salt at all, as it may be due to a change of surface or texture. The case is not without analogies. Some recent experience in photographing old manuscripts in the British Museum is to the purpose. In the course of some work in this direction, Mr. Sawyer, of the Autotype Company, has found that in the case of some manuscripts, portions of which were so faded and obliterated as to be nearly invisible and quite illegible, his photographic reproductions gave a perfectly legible and vigorous rendering of the whole. So important has this power been found, that a society, with the express purpose of reproducing old manuscripts by photography, has been formed, and numbers nearly two hundred members. This is not the first experience of the kind. Some years ago M. Silvy presented to the French Photographic Society a photographic reproduction of an old engraving, in which an inscription before invisible had been rendered with perfect legibility. Other analogous cases are on record. But in these cases a careful examination has generally shown not only a slightly yellow impression, differing, it is true, so far as ocular inspection is concerned, from the paper, but having a different actinic value, but also a decided difference in texture, a dulness of texture absorbing rather than reflecting light.

Replying to some observations to this effect which I made in commenting on this paper, Dr. Gladstone adds some further facts which seem to show that the subject still demands further consideration and experiment. He observes:

"Fourteen years ago I showed experimentally, as you are probably aware, that the alteration of the refrangibility of the extreme rays of the spectrum by fluorescent substances diminishes their photographic power. This was exhibited at Aberdeen, and published in the English, French, and German scientific periodicals of the time. Some months ago, however, a friend, on looking at my old photographs of drawings in quinine, objected (as your article does) that the effect might, after all, be due to a difference of surface produced by the covering salt, or even by the paper having been wetted. I put this to the test by writing on a piece of white paper with black ink, bisulphate of quinine, bisulphate of potash, common salt, and pure water, in five different compartments, and having it photographed. The result showed that the mere wetting, and the non-fluorescent salts, had no perceptible effect, while the fluorescent quinine destroyed a large portion of the chemically active rays. It was the possession of this photograph (of which I inclose a copy) that mainly induced me to bring the subject before the Physical Section; and the fact that the objection has also been urged by you is the best proof that my observation was really novel and important.

"I am very glad that the exhibition of these photographs at Bradford has roused so much attention, for the phenomena of fluorescence being by no means rare must have a considerable effect on practical photography. I may also add there is really no discrepancy between my results and those of Mr. Spiller. I find that quinine destroys some, but not all, of the chemical rays; he finds that a quinine solution allows a good deal of these rays to pass through. It is the same fact, but viewed from opposite directions."

The photograph inclosed by Dr. Gladstone was very interesting. The writing with plain water, and the sodium and potash solutions, present no trace of the inscription, whilst that with the quinine solution is gray, and that with ink black. The fact

is, I think, sufficiently important to demand renewed consideration for the subject.

## OUR PICTURE.

The bright little maiden who honors us with her picture this month has our best thanks, inasmuch as young ladies seem to think generally that it is degrading to have their picture appear in our purely photographic magazine. We hope to have opportunity of displaying these same bright eyes again, when they are twice as old, in this same way.

The negatives and prints were made by Messrs. Trask & Bacon, 40 N. 8th St., Philadelphia, and are reproduced from the original negative by the Edwards process, about which there seems to have been considerable excitement. The picture was intended to show our readers a fair example of the power of this process in the line of multiplying negatives, but so rapidly has Mr. Edwards improved his method that neither he nor Messrs. Trask & Bacon are willing to offer it as an example of the best they can do. It is much to say that they are able to do this well, for there are many times when the ability to multiply a negative, large or small, to any size, will secure a lucrative order. Our readers will remember distinctly that we never recommended them to purchase this or any other secret process. How could we, without knowing what a process is, recommend it? What we *did* do was to *praise the results*, and we repeat what we said about the *capabilities* of the Edwards process.

If photographers see best to refuse to purchase it because it is a secret, they only do what we have so long enjoined them to do generally. But having assured them of the good results of the process without any other idea than to hope that they would exercise their own will in the matter, we again affirm our good opinion of the results, and once more leave the whole subject with our readers.

The paper on which our prints were made was manufactured by Trapp & Münch, Mr. Willy Wallach, New York, agent.

The mounts are from the well-known manufactory of Messrs. A. M. Collins, Son & Co., Philadelphia.

# Editor's Table.

Home Again.—We are again at our desk, after wandering among the galleries of Europe and the art treasures of Italy, safe and well, neither scared nor hurt, but satisfied, with renewed health and vigor for the work at our hands. Our tour was one of continued pleasure and prosperity—a perfect *gala day* throughout. We have seen, and felt, and gathered, and treasured up much, *very* much, and trust that the result will be increased usefulness to our readers. We have proven by personal acquaintance the friendship of many with whom we have corresponded for years, and have seen the editors of all the photographic journals in the world but two, we believe. Now we are back, it seems like a dream, but it was a fact, and in our next number we shall begin some systematic way of telling you of the things we saw, of most interest and value to you, in a series of articles, illustrated profusely by engravings and drawings, which we shall call *Views Abroad and Across.*

We hope for a year of prosperity for us all, and wish you, one and all, substantially, a *Happy New Year!*

*Does your subscription expire with the present number?*

Removal!—As will be seen by the outside cover, we have removed our entire business to Sherman's building, S. W. corner Seventh and Cherry, where our magazine was born, and where we have always had it printed and had our *sanctum sanctorum*. Those who know us personally know that part of each day we were to be found at No. 822 Arch Street. Want of space to accommodate our growing business has compelled us to enlarge at Seventh and Cherry, and we now have our *entire* business concentrated there. We invite all our patrons to visit our new rooms. In our office will be found a writing-table for visitors who may desire to use it, and on the walls

we hope to exhibit constantly a fine display of photographs. You are all welcome. Come and see.

THE TENTH ANNIVERSARY of the birth of the *Philadelphia Photographer* is *now!* $5 *a year!*

A COMPLETE INDEX, with title page, for the current volume is presented with this number.

PROSPECTUS FOR 1874.—Please read it on the third page of the cover, and *cover us* with demands for premiums.

THANKS to our correspondents for many good hints, which we must lay over until our next.

ART STUDIES FOR ALL are crowded out this month. We shall resume them in our next.

PARDON us if we neglect to fulfil any favor asked this month. We came home to a table overloaded with matters of interest, but we have not yet been able to plough down to the bottom of them. *All* shall have our *best* attention *very soon.*

THE Loescher & Petsch pictures charm all who see them. The first set sold was ordered by Mr. William Kurtz, of New York, who not only makes good work himself, but also buys and studies that by others.

FRENCH CORRESPONDENCE.—We shall add to the attractions of our magazine next year a monthly record of *Photography in France*, to be written by Mons. Ernest Lacan, our talented contemporary of *Le Moniteur de la Photographie*, Paris, France. M. Lacan will begin his new undertaking in our next issue with an illustrated description of the studio of Mr. Charles Reutlinger, to be followed in February with all the details concerning the studio and working of Mons. Nadar. These papers will be most interesting and valuable, and we predict a hearty welcome for Mons. Lacan among our readers.

AT the Exhibition in Louisville, Kentucky, our friends Klauber, Webster, Washburne, Wybrant, and others, have captured the newspaper men and the public generally by their fine display of photographs. At Brooklyn, N. Y., Messrs. Alva and Frank Pearsall, Troxell, Rawson, Spitzer, and others, have also won new laurels for themselves and for our art. At Cincinnati, Messrs. Landy and Van Loo and others raced it, but no prizes were offered, so none were won.

EVIDENCES OF PROSPERITY reach us from all quarters, inasmuch as we almost daily receive newspapers from our subscribers announcing that they have opened either new or newly fitted up rooms. Among those of which we receive glowing descriptions are Messrs. Rawlins & Co., Wooster, Ohio; Tresslar Bros., Fort Scott, Kansas; —— Cadwallader, Marietta, Ohio; F. B. Clench, Lockport, N. Y.; Smith & Motes, Macon, Ga.; Charles Huntington, St. Paul, Minn.; Silas Selleck, San Francisco, Cal., and D. J. Ryan, Savannah, Ga. The latter gentleman also has five new stock-rooms well filled, and a supply of Benerman & Wilson's publications always. All these gentlemen receive the *Philadelphia Photographer*, which is a sure evidence of prosperity also.

WE have received specimens of their work from Messrs. A. Hesler & Son, J. W. Wykes, H. H. Halsey, Frank Abell, J C. Toler, Silas Selleck, Foster & Bro., J. G. & F. R. Barrows, Rawlins & Co., and D. H. Anderson. Messrs. Sproule & Co., Peterboro', Canada, and J. C. Moulton, Fitchburg, Mass., have likewise favored us with fine stereoscopic views. Dr. J. C. Mills, Penn Yan, N. Y., sends us a stereo picture of an eight-pound trout which "made a desperate leap for a boy" —and the boy—and his mother.

MR. A. MONTAGNA, one of our subscribers in Mesagne, Italy, has sent us several dozen of most interesting views made in Egypt,—Alexandria, Cairo, the Pyramids, Sphynx, &c., &c. They only increase our regret that while so near that ancient land we did not visit it. Mr. Montagna has shown excellent taste in the selection of his views, and proven himself able to baffle with his chemicals in a hot climate.

MR. JOHN L. GIHON, our able correspondent, now with Messrs. Chute & Brooks, Montevideo, S. A., arranged to have a pleasant surprise awaiting our return to our office, in the shape of several magnificent views of South American scenery and of a number of examples of his portrait work. The views are simply treasures, and have "cloud effects" introduced, such as Mr. Gihon won such celebrity by while in this city. The portraiture is also first-class and beautifully printed.

MESSRS. JOOP & SIEBE, Dresden, Germany, have sent us some beautiful examples of portrait work well worthy of themselves and of the famous fine art city where they live.

ITEMS OF NEWS.—A visit to New York a week or so ago convinced us that photography must be in a prosperous condition there at least. Scovill Manufacturing Company are erecting a splendid new iron front store in Broome Street near Broadway, and Mr. William Kurtz a handsome

art palace at Twenty-third Street and Broadway. Both of these new places will be occupied about January 1st, when we shall fully describe them. —Calling upon President Bogardus we found him enjoying a fine business, and as well and as genial as when we last saw him waving his handkerchief on the Cunard Company's dock in August last as we sailed for foreign parts.—Mr. L. G. Bigelow is having great success with his "cloud effects," and will soon present a sample of his work to all of our readers. His negatives are for sale by all dealers. The results are tasteful in the extreme.—Mr. J. Carbutt, Superintendent of the "Woodbury Works" in Philadelphia, has recently issued a new catalogue of lantern slides. These slides are excelled by none. Mr. Carbutt has also sent us an 11 x 14 view of the interior of the grand Exhibition Hall of the American Institute, New York, which is a splendid picture. The "works" are now 624 North Twenty-fourth Street.—Mr. S. R. Stoddard, Glen's Falls, N. Y., has issued a new and beautiful catalogue of his views.—The Pennsylvania Photographic Association offers prizes for the best work. See "Society Calendar."—Several of our subscribers have sent us clippings from newspapers concerning "the lost art." It is an old story revived, concerning the once famous Hill's "daguerreotypes in colors," which were generally considered to be *sham*.—Mr. Albert Moore, *the* solar printer, requests those sending him negatives to insert their names in some part of the package, that he may know from whom the negatives are sent; he has several on hand, and does not know who to deliver them to. —Several circulars of a certain party offering "A Process for Retouching Negatives" have been sent us. Thanks. But why should you even *consider* the purchase of such a process when you don't need it.—Mr. J. Wege, of London, manager of Mr. Jabez Hughes's stock-house, called upon us about the time we were striving to find him amid the fogs of London.—Messrs. W. & F. Langenheim of this city were the first to introduce photographic magic lantern slides in this country, and as early as 1851 received most flattering testimonials from the lamented Daguerre, the King of Prussia, and other notables. See *Mosaics*.

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THE NURSERY, published by Mr. John L. Shorey, Boston, comes to us this month fuller of glee than ever. It will pay any photographer to take it for the woodcuts, which suggest capital poses for the little ones. $1.50 a year. The *Philadelphia Photographer* and the *Nursery* for 1874 for $6. Supplied by us.

MESSRS. WILSON, HOOD & Co., 822 Arch Street, Philadelphia, have issued a new and beautiful price list, a copy of which they have sent us elegantly bound.

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THE FERROTYPE AND HOW TO MAKE IT, by Mr. E. M. Estabrook, N. Y., has reached its second edition, a copy of which has been sent us by Messrs. Gatchell & Hyatt, Cincinnati, Louisville, and St. Louis, who are the publishers. Chapters on the non-reversed ferrotype, giving full instructions how to make them, with diagrams, are added, making the book thrice valuable. It is a credit to author and publishers, and nicely gotten up.

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CORRECTION.—A letter from our publisher to Mr. Kurtz, which was written in answer to Mr. Kurtz's request for information, was published in *Anthony's Bulletin* last month, and Mr. Landy seems to think it did him injustice, as he also was awarded, as was published in *our* last issue, the large medal of *merit*, at Vienna, for his admirable work. We are glad to bring Mr. Landy's deserved success once more before our readers in order to congratulate him upon it, and to correct any false impression which may have been caused in the manner mentioned above.

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THE ANTHONY PRIZES.—Our readers will not forget the prizes offered by Mr. Edward Anthony of New York. Full details will be found on page 295 of our September issue, and the time is limited to February 1st. You have no days to lose. While it seems a singular thing to ask the National Photographic Association to appoint a committee to make the awards in this matter, who are neither members of the Association or practical photographers, but amateurs, who, with one or two exceptions, have scarcely made a negative for several years, yet all such offers promote healthful photographic exercise, and we should like to see the subscribers of the *Philadelphia Photographer* carry away the entire five hundred dollars. They undoubtedly *will* do this if the prizes are awarded at all, for all *good* photographers take the *Philadelphia Photographer*, and good ones are continually growing in numbers.

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OPINION ON THE WESTON PATENT.

For the benefit of those interested we publish the following:

BANGOR, Nov. 17th, 1873.

HON. J. P. BASS.—*Sir:* The question submitted to me, as to whether the stoppage of one roll of the Excelsior Roll Press, and its use in polishing photographs, either with or without heat, would infringe the Weston reissued patent of February, 1873, for a burnisher for photo-

graphs, &c., has received my attention. Basing my opinion on the specification and claims of said reissue, which is *prima facie* valid, I do not hesitate to pronounce said alteration and use an infringement of each and, if heat is used, all the claims.

Stopping one roll of said press and feeding the card over it by revolving the other, polishing it in its passage, is covered by the first claim of the reissue. It produces a "burnishing machine by which a surface is given to the article to be polished, by feeding it under pressure over the surface of a stationary burnisher," and such machine is what Weston claims. Stopping the roll converts it into a "stationary burnisher"—as far as its operation on the picture is concerned—its *shape* being a matter of no consequence, and the combination of this stopped roll with the revolving one is substantially the combination of the feed roll and stationary burnisher set forth in the second claim of the reissue. Heating the stationary roll introduces into the combination the elements which Weston's third claim is based upon.

I consider the device as simply a colorable variation of Weston's machine, performing substantially the same work in substantially the same way, and should advise the prosecution of infringing parties, having confidence in the validity of the patent, and believing that it will be sustained by the courts.

Very respectfully,

WILLIAM FRANKLIN SEAVEY,
Counsellor at Law and in Patent Cases.

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SPECIAL NOTICE.—*To the Photographic Fraternity of New England:* You are cordially invited (*with ladies*) to a social gathering of the members of the Boston Photographic Society on the evening of Friday, December 5th, at the studio of J. W. Black, No. 173 Washington Street, Boston.

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MR. KURTZ'S VIENNA AWARD.—Some dispute having occurred as to the exact awards made at Vienna, Mr. Kurtz sends us the following for publication:

NEW YORK, Nov. 18th, 1873.

EDWARD L. WILSON, ESQ.—*Dear Sir:* Inclosed please find a letter of Dr. Vogel, of Berlin, which I received back from Harper's only now; they have published it, and you would oblige me by having it published in the *Philadelphia Photographer*, and returning it to me with the envelope immediately after you have used it for that purpose.

Yours truly,
WILLIAM KURTZ.

BERLIN, Sept. 24th, 1873.

DEAR SIR: I am surprised to read that there are published in America quite erroneous lists of medals as awarded to American exhibitors at the Vienna Exhibition, and that there are persons who mystify the people with such false statements.

As member and secretary of the photographic section of the jury of the Vienna Exhibition, I feel obliged to explain in the interest of truth and justice the following:

The jury, composed of six gentlemen, amongst whom were Mr. Davanne, of France; Mr. Luckhardt, of Austria; Mr. Von Melings, of Austria; Mr. Pooter, of Holland; Mr. Levitzky, of Petersburg; and myself, from Germany, have seen fit to give the highest award to *but two portrait photographers* in the world, *yourself* and Loescher & Petsch in Berlin. This highest award is the *medal of good taste, with mention of progress.*

The jury mentioned the progress, too, because we proposed to give to you *two* medals, one for taste and one for progress, but it was declared afterwards by the chief director, Baron Von Schwartz, that only one medal could be given to one exhibitor for the same subject.

No other American photographer has got a medal for good taste.

As the next highest award for photography, the jury declared the *medal of progress*, which was given to fifty-three exhibitors; four of them are Americans.

As the last in rank was regarded for portrait photography the *medal of merit*, and it was distributed to about *one hundred and forty* (140) photographers, one of them to *Mr. Howell, New York City.*

Of co-operator medals, one only is given, for America, that is for Mr. Elbert Anderson, in your studio.

Of honorable mention, two came to New York City; one to Messrs. Schwind & Krüger and one to Mr. Nunevehr (a third for Mr. Spahn; it was not given for pictures, but for apparatus).

I have sent an official list of the American medals already, the 26th of July, to Mr. Edward L. Wilson, editor of the *Philadelphia Photographer.* I regret that this official report is not published till now. I hope it will be done in the meantime.

A list of *all* medals given by the photographic section is published also in No. 107 of the *Photographische Correspondenz,** of Vienna, which

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* Also in the November number *Philadelphia Photographer.*—EDITOR.

I sent to you by book post. You find therein your name ahead of all.

Very truly, yours,

DR. H. VOGEL,

Member and Secretary of the Photographic Section of the Jury on the Vienna Exhibition.

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ADDITIONAL FORCE.—We have the pleasure of announcing that we have secured the services of Mr. Robert J. Chute as an *attache* to our establishment. Mr. Chute's short, pointed, practical communications to our pages are much valued by our readers, and as he is one of the very best photographic operators in the country, we are sure that our readers will be glad to hear that we have engaged him to sit at our side, and to take from our shoulders a part of the labor which each year in the life of the *Philadelphia Photographer* grows more and more burdensome. His old friends in Philadelphia will be particularly glad to have him make his residence here again after a year's absence in New England.

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ANNIVERSARY EXERCISES.—The tenth anniversary of the marriage of the *Philadelphia Photographer* with the photographic fraternity of the United States and with the rest of the world occurs this month, and in honor of the occasion an entertainment will be given towards the end of the year, *to which all of our subscribers are cordially invited.* The programme is being prepared by our friends, and will consist of an exhibition of photographs, magic lantern, addresses, toast, toasts, &c., &c., usual on such happy occasions. Those of our patrons who can be present will please do us the favor to send us their names by the 15th inst., when a ticket of admission and full particulars will be sent them at once. Positively no admission without a ticket, and no other invitation will be given.

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PICTURES RECEIVED.—Messrs. Johnson & Glenton, Nashua, N. H., have sent us some specimens of elegant photography, which are a happy surprise to us. Two years ago the work of these gentlemen scarcely reached mediocrity, now it is well worthy of being placed side by side with that presented in the *Philadelphia Photographer.* We will state the secret of their success in our next issue.—Messrs. Fosnot & Hunter, Keosauqua, Iowa, have sent us their "first trials at outdoor work," being two 8 x 10 photographs of the new bridge at that place. We think they may be encouraged to push that branch of their business.

OBITUARY.—Our Texas alligator died on the evening of November 24th. He was a photographic alligator, a great pet in our office, and —he is dead.

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MR. J. F. RYDER'S NEW CHROMOS.—"Pluck No. 1," and "Pluck No. 2," are the titles, as will be seen by his advertisement, of two charming chromos published by Mr. J. F. Ryder, the eminent photographer at Cleveland, Ohio. What shall we say about them? It has been a long time since the walls of our sanctum have so literally been *shaken* by mirth as they were on the opening of this pair of chromos there a few days ago. They were placed on a table, face out, and it was a most interesting study to see visitors come in, look at those chromos, and then sit down in a perfect effervescence of laughter. The subjects are such as touch the heart and the risibles of every man. Little "Pluck" goes out with his dog-cart to take his two tiny sisters a ride. The dog sees a rabbit, and makes for it full speed. "Pluck" holds on to the lines bravely, while the smallest youngster tumbles out in the rear, head first. Just as the dog reaches the rabbit (in No. 2) a fallen tree intervenes, the cart is smashed, and destruction generally follows—of cart, children, tree, rabbit, and all—except the lines, which "Pluck" pluckily holds on to, until the end of the race. The entire scene is so full of spirit and life and so natural that every one must buy the pair. They should by all means be hung in every photographic reception-room, in order to put your sitters in a good humor. They teach a moral lesson also, *i. e.*, he who pluckily holds on, wins. The price of this jolly pair is $9.50 and $10. See advertisement.

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THE Awards by tne American Institute, a list of which Mr. Hull sends us just as we are ready for press, are as follows: *Silver Medal* to Scovill Manufacturing Company, W. Kurtz, C. E. Watkins, W. R. Howell, A. W. Jordan, C. D. Fredricks & Co., G. G. Rockwood, William Richardson, Charles Bierstadt. *Bronze Medal:* T. Gubelman, G. A. Flack, German Photographic Association, G. W. Pach, J. Weber, Schwind & Krüger, George Barker, R. Morrison. *Diplomas:* Joseph Kirk, A. B. Costello, A. Naegeli, Boors & Spier, R. B. Talfor, L. A. Finley & Co., Alva Pearsall, E. & H. T. Anthony & Co.

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IMPORTANT.—We have some correspondence between Messrs. Sherman & Shaw, which must be delayed until our next, it having arrived too late for this issue.