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THE

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Original Communications.

ART. I.—Report to the State Society by Committee on Rheumatism.

BY SAMUEL DU BOIS, M. D.

To make this Report as full of interest as it were possible, your Committee sought aid, by early appointing as auxiliary members several gentlemen well qualified to render assistance, but unfortunately they, in every instance, failed to make their contributions; — therefore, coming from such a source, and unaided, the inferiority of the production will give no surprise. But, justice to ourself requires it to be said, that circumstances have almost wholly deprived us of the necessary time and opportunity for consultation of others.

To form a just conception of what is expected is, perhaps, the greatest difficulty connected with the duty with which this association has thought proper to honor us; for the almost universal tendency in man is to *overreach*, especially in efforts to be brought before the public. That it is not a Treatise on Rheumatism that is here called for, the fullness of the works extant, coming from men of the highest talents, abundantly

argues; but, supposing it to be, to simply set forth what observation and experience have led us to believe to be some of the best established facts in relation to the nature of the disease and its best mode of treatment, and in the absence of something better and more appropriate, we submit to you the following:

New discoveries we can claim none; but in that part of our State in which we have been acquainted, Rheumatism has appeared to be on the increase with the improvement of the country, with an increasing tendency to the acute form for the last few years; and from opportunities afforded for the basis of an opinion, would say: If there is, among the diseases with which the human body is afflicted, one which is the result of *altered chemical conditions*, it is Rheumatism — all its phenomena pointing to a poison contained in the system, somehow introduced, or elaborated within, or, what is more probable, consisting of effete material which has failed to be conveyed out of the system, composed of one or more elements, the result of certain elective affinities, and possessing, as some have supposed, an acid re-action, from the prevalence of acids in the excretions, and the nature of the remedies that have proved most successful. These views seem to be supported by the fact of the supervention of the complaint in those persons inhabiting climates where the variations of temperature, called changes of weather, are sudden and frequent, and especially in those whose exposure to such vicissitudes (in combination with moisture) have the effect of suddenly modifying the amount of excretions of the body, particularly that of the skin.

A general acquaintance with what has been said by our Standard Authors upon the disease rendering unnecessary a full description, we will only notice a few main points of interest.

For consideration, it is usually divided into Acute and Chronic, or Inflammatory and Non-Inflammatory, but we see

all grades of intensity of action, from the high and peculiar inflammation down to the most trifling local manifestation.

Besides its migratory characteristics, the great point of difference to be noticed between rheumatic and the ordinary inflammation is, that we never see the former running to suppuration, or to several other results common to the latter, of equal intensity. True, it is claimed by some, that they have witnessed rheumatic inflammation of such intensity that suppuration was produced; but it is probable that this effect in the cases referred to was due to an intercurrent inflammation of the erysipelatous, or common variety, or that the occurrence of a deep-seated abscess, as in the hip-joint, was mistaken for Rheumatism — a case of which came under our own observation, in which the deception was truly marvelous, yet in time well cleared away. Following the distinction a little farther, as says one of our first authorities, "Throughout all this febrile disturbance, there is no coma, no marked trouble of the stomach or of the bowels, no vomiting, no diarrhœa, no petecchiæ, no aphthæ, no sordes about the mouth, all of which are of ordinary occurrence in the course of common continued fevers"; which it is fortunate to remember in some masked cases of difficult diagnosis.

There seems to be a little difference of opinion among writers, as to whether the Acute form is apt to run into the Chronic.* Our own limited observation leads to the belief that such a transition may frequently be *expected, even under active treatment.* And here, we beg leave, in few words, to give a case.

Young L., on a bright warm Sunday, in March, A. D. 1856, amused himself by wading in water running over the ice, following the course of a stream connecting two small lakes for the distance of nearly a mile; then spent some time on the

*See Miller's Principles of Surgery, 4th American Edition, page 61; Also, Watson. Then Dunglison's Medical Dictionary, 9th Edition Revised, on Rheumatism.

ice. In a few days he was attacked with Acute Rheumatism; his pulse about 120 to 130. The usual alterative and alkaline treatment assisted by opium, was resorted to, which considerably controlled the symptoms for several weeks, but with little real improvement. Fibrous deposits, and the consequent enlargement of the joints, occurred, followed by the usual manifestations of the chronic form of the complaint, when he fell into the hands of a Quack of the Thompsonian species, and is to this day a cripple.

The marked contrast observed in symptoms, and in the kind of treatment indicated in the two forms of the complaint, has tempted some into the belief that they were really two diseases; but we regard such differences only as results growing out of the same philosophical grounds, as that which discovers as striking a difference in the symptoms and treatment called for in the sthenic and asthenic forms of ordinary inflammation. Another important view of the subject may be taken by distinguishing it as *Articular, Visceral, or Neuralgic.* Mixed cases are of every day occurrence; which is sometimes a fortunate circumstance, as a means of correct diagnosis, which would in some cases be otherwise difficult.

The first point of interest in the purely *Articular* is the chronic enlargement-deformity, and consequent failure of function of the joints, which frequently occurs, and *sometimes* in patients under vigorous and orthodox treatment. Of this, we meet with two kinds: one, which is the result of fibrinous deposit, the other of synovial effusion; in both the diseased action is, at first, exterior to the synovial cavity. The former we meet with most frequently in the robust and plethoric, with more frequent tendency to attacking the heart, while the latter oftener is seen in those of weak constitutions, sometimes approaching a cachexia.

Another lesion attendant on the more chronic cases, is that peculiar state of the synovial cavities and sheaths of the tendons which produces the friction-sound, a peculiar squeaking

both to be heard and felt. This may, however, often be discovered in the sub-acute form of ordinary inflammation of these structures, resulting from violence.

Among internal organs liable to be attacked, we would notice the heart and its appendages, the diaphragm and pleura (constituting Pleuritic Rheumatism, or Rheumatic Pleurisy), the ligamentous attachments of the liver and the stomach (constituting Gastric Rheumatism, or Rheumatic Gastralgia).

If delirium occur in a case of Acute Rheumatism, almost certainly the heart is implicated; which it is well to remember, at least so far as to lead to such examination of the case as to not allow this fearful complication to escape detection; for it may here be remarked, that if pericarditis once establish itself, and the patient temporarily escape with his life, the organ usually undergoes lesions that are, in time, certainly fatal. "With this exception" says Watson, "we do not find patients in Acute Rheumatism delirious." But we have observed that patients who are apparently laboring under a strong tendency *towards* an implication of the heart in the disease, or in whom the heart is almost imperceptibly affected, appear as though inspired with a strange horror of some thing, they know not what, and somewhat resembling what has been described by patients laboring under hydrophobia, but to a minor degree, and yet seem to recover without the usual phenomena attending rheumatic pericarditis.

The *Pleuritic* we have known to so closely resemble ordinary pleurisy as to render the case puzzling to our limited training in diagnosis, at the first of the attack. It is quite frequently confounded, no doubt, with an attack of the intercostal muscles, and oftener accompanied by the same. A peculiarity of the disease in this locality is, that, when carefully sought for, the friction-sound may be discovered, although sometimes only when the patient forcibly elevates the ribs by deep inspiration—indicating the state of a portion of the pleural surfaces. And we have sometimes witnessed sudden

and violent traumatic attacks of the complaint in the pleura and intercostals, following the puncture of abscess in the mammæ, etc. The acute and continual pain that is often experienced, with the great stricture in breathing in this form of attack, is little short of that which is characteristic of true pleurisy in its severest form; and when it is of a more chronic character, the pain in the chest is of such a peculiar character, that some hypochondriac and hysterical grannies of both sexes have tried in vain, with their "pain in the chest," year after year, to die with "consumption," even down to a good old age. And, when extending to the appendages of the liver, it constitutes a large share of the "*liver complaint*," now so polite an affection, affording Quacks an opportunity to try their skill with mandrake pill; and they are generally successful, in time—so far as the pocket is concerned.

Rheumatic Gastralgia is one sort of, or rather is frequently taken for, dyspepsia; and is often an intractable complaint, the more so from being so frequently misunderstood.

And this brings us to another boundary of the subject, viz., the *Neuralgic* form; which is, according to our observation, most usually combined with anæmia, and the consequent peculiar irritability of the nervous system; difficult to distinguish from ordinary neuralgias, if indeed there be a difference; exceedingly painful, at night especially; affecting the teeth, jaws, face, ears, etc., and, as above said, the stomach. And here we beg liberty to offer the conjecture that *angina pectoris* with all the discovered structural or organic changes in and about the heart, will yet be found to be due to the chronic lurkings of the poison; also that fearful tetanus;—both the the eccentric offspring of the rheumatic diathesis, strange as it may appear.

We also see Rheumatism fixing itself in the most aggravated form, upon those whose constitutions have undergone a decided depression from the effects of mercury or syphilis, producing the most horrible distortion of the frame—as

Watson says, "one crooked joint is the copy of its fellow." A striking instance of this was the case of Mr. B., an early settler in this State—strong and healthy—after using an astonishing quantity of *Ung. Hydrarg.* by way of a general friction, for what he supposed to be itch; following its specific effects, he was attacked almost immediately with Rheumatism, which soon transformed him into the most dreadfully misshapen cripple for life.

Thus we have here a disease, appearing to occupy an intermediate place, insensibly blending with the febrile or inflammatory on one extreme, and with the cachetic on the other.

When we consider that few diseases are capable of inflicting greater amount of suffering, within a given length of time, than Rheumatism, it becomes exceedingly desirable to arrive at a knowledge of the most ready means of relief. But, says one of our most reliable medical authors—"Now you may be sure—when men's opinions concerning the treatment of a disease which is of common occurrence, and easy recognition, are thus unsettled and diverse—you may be sure, first, that no specific for that disease has yet been discovered, and, secondly, that the disease is not very obedient, or not very steadily obedient, to any remedial plan." This was uttered several years ago, and to-day we do not feel very well prepared to contradict it, but from observation and testimony, naturally infer that that class of remedies which may be more directly addressed to the peculiar chemical condition of the system under the disease, will be most successful. And such experience proves to be true, besides a strictly chemical view. The treatment is therefore *antiphlogistic*, *alterative*, and *restorative*.

Among the *Antiphlogistics*, the means that have proved most useful in Rheumatism are, first, those of direct depletion, as bleeding, purging, and emetics; secondly, sedatives, as opium, antimony, veratrum, and colchicum in large doses. The *Alteratives* are, mercury, the alkaline salts, iodide of

potassium, colchicum, and counter-irritation (the word "alterative" being used in this paper in the sense of including the agents of the direct chemical action). The *Restoratives* are, iron, quinine, iodide of potassium, and *warmth.*

Referring again to the standard works for the details of treatment, we merely notice certain points of particular interest; and, first, with regard to *Bleeding.* Some authors recommend bleeding with considerable freedom; others, with great caution. The latter class receive our most hearty approbation. And WATSON (whose views of this disease as a whole please us best of any we have seen), after recommending the practice with some freedom, says: "Yet, looking to my own practice in Acute Rheumatism, I find that although I am in the almost daily habit of treating it,—for it is a disorder from which our wards are never perhaps entirely free,—I rarely prescribe phlebotomy." And, again: "So that the cases in which I am tempted to employ the lancet, are few and far between." The *rule* we would here offer is: In cases of highly inflammatory re-action, as shown by the pulse, and if the patient be young and plethoric, *bleed*, and not otherwise, even in the cardiac complication, unless early in the case, and in all cases with the greatest caution; for in some patients the cardiac affection will be produced by injudicious bleeding, when it would not otherwise have occurred. And in the cases which promise most from bleeding, if it be carried to the extent (by error of judgment with the practitioner, or peculiarity of the patient) of producing any thing approaching what may be called the hæmorrhagic pulse, almost certainly the patient is lost; for if the heart be too much emptied of its contents, a greater task is imposed upon it, in the greater effort required in the performance of its function. Then, when bleeding is resorted to, let it be conducted with a view to producing the greatest sedative effect, with the least loss of blood, yet guarding against actual syncope, as favoring the deposit of one of those little mischievous appendages

about the valves, from the fibrinous state of the blood, with all its dreadful consequences, endocarditis being so often coincident. Admitting the temporary relief to be usually immediate and great, and the greater facility with which other remedies act, yet we regard a tolerably full heart (other things being equal) of the two the most favorable to the desired result of this fearful complication.

In addition to bleeding, judiciously employed, we most heartily endorse the sentiment of Watson, in saying that *Mercury*, boldly pushed to its defibrinating effect, with *Opium*, is the only hope, after pericarditis is once fairly established. It is then that the matter becomes that of a choice between two evils,—mercurialization, or death of the patient more or less immediately: and it is then that the class of *Quacks* who plead "No Mercury," become most ridiculous, as there is no other article that will answer as well. And in the less urgent cases, the more cautious use of mercury with opium is the most valuable means in the treatment of all cases of the inflammatory form, to allay the violent action then to be superseded by the milder alteratives or eliminatives.

Pretty free *Purging*, or at least an active state of the bowels, is very essential in assisting to eliminate the poison and reduce the febrile excitement. As a sort of temporary cure, any thing that produces a great sedative or relaxing effect on the system is generally highly successful, at least in allaying the more acute symptoms; therefore we frequently find that an antimonial emetic, will produce very beneficial results; also veratrum viride, or, what seems to act still better, veratrum and colchicum, equal parts, given once in three hours in such doses as to produce a great sedative effect; or the colchicum alone in large, or we might as well say, dangerous doses, as we found in one or two instances in which we prescribed it, in the early part of our practice, and being a little deceived as to the strength of the article, the doses

given producing some of its specific effects, such as protracted vomiting, but the Rheumatism, which was of a high grade of violence, was speedily missing, on which we took occasion to congratulate ourselves, yet secretly confessing the remedy almost as bad as the disease. This plan of operation is understood by some aside from our Profession. The Thompsonians accomplish the same by giving the lobelia inflata, in large quantities. And too good to be lost, is the expression of a gray-headed specimen of this sect, who, on hearing the above case related, and evidently ignorant of the remedy used, put on a sapient look, and gravely remarked, "*I should have paralyzed her* [the patient] *with Lobelia!*"

The colchicum in small doses, as ordinarily given, probably assists, but more especially in gout, by promoting the elimination of urea from the system.

What has been said of the merits of the alkaline salts, we believe experience will justify; and are inclined to the belief that most of the apparent failures with these remedies (at least in our own practice) has been attributable to their not having been given in sufficiently large doses, and *sufficiently continued;* for almost frightful quantities seem often to be required—not grains, but drachms and ounces.

Counter-irritation is most particularly beneficial in the rheumatic affections of the internal organs. A patient is attacked with what his friends suppose to be a pleurisy of violent character; but, from some peculiarities, we infer the difficulty to be rheumatic, and apply a blister to the chest, when suddenly all the stricture is relieved, plainly distinguishing it from real pleurisy. Thus blistering over the stomach and liver, in rheumatic cases, often does great things in a short time—in this respect differing from their effect in inflammatory cases.

And this introduces the subject of *External Applications* in general. In the inflammatory form, patients are apt to think cold applications agreeable and beneficial; but we do

not hesitate to say that they are, not only dangerous, but hurtful, favoring metastasis, and even hindering the most speedy disposition of the case. The best external application with which we are acquainted, is a hot alkaline solution, made from the wood ashes always at hand in the fireplace. These fomentations are to be large, and continued, and the results have often suggested the idea of a local specific, or chemical effect, from the potash. The more chronic cases that generally call for stimulants and frictions, may be treated externally by the rubefacient effect of strong ammoniated liniments.

In the *Neuralgic* forms, accompanied by anæmia and scrofula, ammonia must be mostly substituted for the salts of stronger base, and iron sesq. ox. used freely and *protractedly* with iodide of potassium, and, above all things with those of rheumatic habit, *extra warm clothing* of wool. Morphia will often be required for immediate relief.

And after we have said all, we sometimes find ourselves most rascally mortified for want of success, in a given case—at any rate patients will take it out in grunting, if for no other reason than to dampen the feelings of the physician in expectation of his fee.

These fragments of thought are respectfully submitted to your consideration. They are thus brief, and scattered, for want of greater facilities, and because given at random, and especially because we would avoid, as far as possible, unnecessarily repeating what has been already said by others, and therefore uncalled for; and if we have not the ability to carry it out, we would at least indorse the sentiment—

> "Floriferis ut apes in saltibus omnia libant
> Omnia nos itidem."

ART. II.—Report to State Society on the Diseases and Topography of Livingston and Ingham Counties, Michigan.

By G. E. Corbin, M. D.

Having been a resident of the State of Michigan only about six years, and of this County less than two, an accurate description of the diseases peculiar to this locality, in former years, can not be expected of me. In June last, I addressed letters of inquiry concerning the diseases and topography of their respective localities to various physicians, residing at different places in Livingston and Ingham Counties, in order that I might thus approach as nearly as possible to a faithful discharge of the duties assigned to me by the Michigan State Medical Society, and, with one single exception, none have as yet seen fit to respond. My Report will therefore, of necessity, be but a very imperfect one; and yet, if taken in connection with other more complete Reports, it may possibly add something to the general fund of data from which important conclusions are constantly being adduced.

My friend, Dr. C. H. Sackrider, of Mason, has furnished me with valuable information concerning his locality, together with a Table showing the character of acute diseases most common in his practice during the first ten months of the present year.

Concerning Mason and its vicinity, he makes use of the following language:

> Mason is pleasantly situated on the east bank of the Sycamore Creek, within one mile of the north line of the town of Vevay, being the county-seat of Ingham County.
>
> The town has been settled over twenty years, and was in a flourishing condition when Lansing was located in the north-west part of the County, but most of the business men, seeing a better chance of investing their means, left, and located in Lansing; consequently, since that time, it has been in nearly a dormant condition till, within a year or two past, its fine locations and arable lands have attracted many immigrants, and it is being settled as fast as could be expected of an inland town.

It is well watered by the Sycamore Creek, which passes through it in a north-west direction, and empties into the Cedar River near Lansing. This creek is but a small stream of one or two feet of water at low-water mark. It has a feeble current, and occasionally affords a site to a mill. The water is colored, probably from the great amount of flood-wood accumulated in its course.

The most of the township is heavily timbered, principally with beech, maple, oak, and ash.

The soil, in most parts of the township, is of sand and clay, the clay predominating.

The prevailing diseases are Intermitting and Remitting Fevers, Bilious Pneumonia, Diarrhœa, Dysentery, and Rheumatism. These are prevalent; but, as additional, we have more or less of the whole nosological list under our care at one time or another, and nearly all diseases are modified by the ever-present genius of evil, — *Malaria*.

Most of the diseases which have presented themselves during the past season have assumed a very mild character, and have readily yielded to the ordinary treatment laid down in our Text-Books.

The Counties of Livingston and Ingham are the most elevated of any in the southern part of the State, and give origin to numerous small and sluggish streams, the waters of which assist in washing the banks of the Shiawassee, Huron, Kalamazoo, and Grand rivers. The first mentioned river runs in a northerly direction, and empties into Saginaw Bay; the second, in a south-easterly direction, and empties into Lake Erie, near the mouth of the Detroit River; Kalamazoo and Grand rivers empty their waters into Lake Michigan.

A comparatively level section of the country giving origin, as well as such a diversity of directions, to the numerous small streams, must of necessity contain many small lakes, marshes, swamps, and pools of stagnant water.

The surface is quite undulating, and by far the greater part is what our farmers term "hard land."

The soil is various, embracing nearly all grades, from a light, rich, black loam, to a firm and heavy clay. In some parts, the soil is of a light yellowish sand, and the surface so broken that it receives the appellation of "sand hills." Wells sunk in this soil afford an excellent quality of water,

and the timber growing upon it is of that variety known as "oak openings." The clayey soil is generally less uneven in surface, contains most of the stagnant water, and, where in a state of nature, is heavily timbered—principally with beech, maple, oak, and ash.

Within the limits of these two Counties are occasionally to be found natural springs, the water of which has a metallic taste.

The farmers are mostly in a flourishing condition, having good buildings, and farms well cultivated, notwithstanding that twenty years ago they were laboring under all the disadvantages incident to a new country.

Within the limits of these Counties is still to be found considerable land yet unoccupied, it having been taken up by, and is yet in the possession of, speculators. These lands (mostly heavily timbered) are now, however, being rapidly settled and fitted for cultivation.

In such localities, we find more sickness than in parts which have been longer settled, and diseases of a somewhat different type.

The population of Livingston County is greater than that of Ingham, it having been settled somewhat earlier.

Lansing, the young and beautiful Capital of our State, is situated in the north-west corner of Ingham County, near the junction of Cedar and Grand rivers, in what at the time of its location was a dense forest. Concerning the diseases in this locality, I have not been informed, but should conclude that those of a malarious origin would predominate.

The village of Stockbridge is pleasantly situated on the west bank of Portage River, a stream which, though quite sluggish, supplies the power for an occasional mill, and ultimately empties into the Huron River. The township forms the south-east corner of the County, and has been settled something over twenty years. The soil is principally sandy, and was originally covered with short, scattering oak trees,

constituting "oak openings." The diseases here at an early day are said to have been much more frequent, severe, and obstinate than of late. The difference in type between the diseases of an old and a new country, I have been enabled to observe, to a *limited extent*, in my own practice during the last two years.

The township of White Oak adjoins that of Stockbridge on the north, Waterloo on the south, Unadilla on the east, and Bunker Hill on the west. The township of White Oak is densely timbered, and at the present time is being settled and cleared away very rapidly. There is more or less new ground broken up each year, and a vast amount of decaying vegetation exposed to the searching rays of the sun.

All the other townships mentioned were originally much more sparsely timbered, and have for some years been settled and tolerably well cultivated.

In proportion to the population, according to my own observation, diseases of malarious origin are more abundant, and those of non-malarious origin more frequently assume intermittent or remittent forms, in the "timbered land" than in any of the other townships mentioned.

The health of the community in this section has been very good during the past summer and autumn, there having been less miasmatic diseases than in the summer and autumn of 1856. Chronic diseases are quite numerous and diversified.

Of the births which have fallen under my supervision since July 1st, 1856, the males were to the females as 9 to 16.

STOCKBRIDGE, December 21st, 1857.

STATEMENT, showing the Character of Acute Diseases most common in the Practice of C. H. SACKRIDER, M. D., of Mason, *during the first ten months of the present year—the Diseases being named in the order in which they were most abundant.*

JANUARY—Pleuritis, Pneumonia, Bronchitis, Rheumatism, Erysipelas.
FEBRUARY—Pneumonia, Pleuritis, Catarrh, Rheumatism, Erysipelas.
MARCH—Pneumonia, Ague, Neuralgia, Bronchitis, Carbuncle.

April — Pneumonia, Pleuritis, Intermittent Fever, Chlorosis.
May — Intermittent Fever, Pneumonia, Pleuritis, Neuralgia.
June — Remittent Fever, Intermittent Fever.
July — Dysentery, Diarrhœa, Remittent Fever, Intermittent Fever.
August — Bilious Remitting Fever, Dysentery, Intermitting Fever.
September — Dysentery, Intermittent and Remittent Fevers, Enteritis.
October — Typhoid Fever, Tonsilitis, Remittent Fever, Pneumonia.

STATEMENT, showing the Character of Acute Diseases most common in the Practice of G. E. Corbin, M. D., of Stockbridge, *since July 1st*, 1856—*the Diseases being named in the order in which they were most abundant.*

1856.

July — Ague, Dysentery, Diarrhœa, Intermittent Fever, Bilious Colic, Ophthalmia, Neuralgia.
August — Ague, Dysentery, Scarlatina Simplex, Intermittent Fever, Urticaria, Paronychia, Ophthalmia, Erysipelas.
September — Dysentery, Intermit. Fever, Diarrhœa, Eczema, Erysipelas.
October — Bilious Remittent Fever, Croup, Diarrhœa, Neuralgia.
November — Cholera Morbus, Neuralgia, Pneumonia, Pleuritis, Peritonitis.
December — Catarrh, Neuralgia, Diarrhœa, Paronychia.

1857.

January — Pneumonia, Erysipelas, Tonsilitis, Cholera Morbus.
February — Catarrh, Pneumonia, Rheumatism, Croup, Tonsilitis, Peritonitis.
March — Pneumonia, Parotitis, Neuralgia, Erysipelas, Cholera Morbus, Ophthalmia.
April — Pneumonia (very common), Bronchitis, Catarrh, Erysipelas, Carbuncle.
May — Pneumonia, Catarrh, Bronchitis, Ague, Rheumatism, Neuralgia, Varicella, Erysipelas.
June — Remittent Fever, Ague, Catarrh, Varicella, Paronychia.
July — Ague, Diarrhœa, Intermitting Neuralgia, Stomatitis.
August — Diarrhœa, Carbuncle, Diseases of Skin, Ophthalmia, Cystitis.
September — Intermittent Fever, Dysentery, Pertussis, Ague, Paronychia, Scarlatina Simplex, Cholera Morbus, Phrenitis.
October — Intermittent Fever, Bilious Remittent Fever, Pertussis, Diarrhœa, Ague, Pneumonia, Sciatica.
November — Catarrh, Pneumonia, Diseases of Skin, Paronychia, Croup, Rheumatism.

ART. III.—Report to State Society by Committee on Vaccination.

BY SAMUEL N. AXFORD, M. D.

WITH the history of Small-Pox you are all familiar. That for centuries it was the most dreaded, loathsome, and fatal of all the diseases that have afflicted the human family, no one will pretend to deny. From the nature of the disease, its universal contagious tendency, the difficulty of arresting its progress when once developed, and destroying on an average one-third, or at least one-fourth, of all whom it attacked, it was more to be feared than the dreaded Plague or Cholera. In its history, we have three distinct periods to compare with each other,—a period anterior to the introduction of Inoculation, a period during which Inoculation was practiced, and a period during which Inoculation has been superceded by Vaccination.

Inoculation was introduced into England in 1721; and the deaths from Small-Pox during the ten years previous to 1720 will fully represent the mortality of Small-Pox unmodified by inoculation, which we find to be 31,416 to a million of inhabitants. But inoculation did not become generally practiced until the last quarter of that century, and the ten years from 1790 to 1800 will mark the time when it was largely and generally practiced; during which time we find the average of deaths to be 22,863 to a million. The ten years from 1840 to 1850 will represent a period when Small-Pox inoculation having fallen into entire disuse, and been even declared an illegal practice, vaccination being the only preventative employed or permitted; and during this period, the deaths from Small-Pox were only 4,798 to a million. And it must be remembered that large numbers of persons at that time, as well as now, remained unvaccinated, although the greatest facilities were offered for the performance of the operation.

Although feelings of doubt and scepticism prevail among a few, and the question has lately been asked by some distinguished medical men, What has vaccination achieved? we ask what stronger evidence is wanting of its protecting influence? But some statistics which we have been able to collect, showing how the mortality of Small-Pox has diminished in proportion as efficient means have been adopted to ensure perfect vaccination, may be of some service.

From the Report of the Epidemological Society of London, we find that in various German States, before vaccination was used, out of every 1,000 deaths 66 occurred from Small-Pox, but after the introduction of vaccination, the number was reduced to 7. In England, where vaccination is voluntary, and frequently omitted, the deaths from all causes being 1,000, the deaths from Small-Pox were, in London, 16; in Edinburgh, 19; in Glasgow, 36; in Limerick, 41; in Birmingham, 16; in Perth, 25; in Dublin, 25; and in all Ireland, 49. In other countries where vaccination is more or less compulsory, the deaths from all causes being 1,000, the deaths from Small-Pox we find as follows: in Westphalia, 6; Lower Austria, 6; Venice, 2; Saxony, 8; Bohemia, 2; Sweden, 2; Rhinish Provinces, 3; Lombardy, 2; Bavaria, 4.

Another mode of illustration is given; which contains two series of facts side by side, and shows, first, how many persons in each million of the population annually died of Small-Pox before the introduction of vaccination, and, second, how many in each million annually have died since its use.

	1777—1806.	1807—1850.
Lower Austria	2,484	340
Trieste	14,046	182
Bohemia	2,174	215
Moravia	5,402	245
Prussia	5,593	912
Westphalia	2,643	114
Sweden	2,150	158
Copenhagen	3,128	286

Again, the following illustrations, selected by SIMON from various sources, show the extent of the security against death possessed by the vaccinated compared with the unvaccinated, and, as he himself states, can be expressed only by the terms "almost absolute":

		No. of Cases.	Deaths per 100 among Unprotected.	Deaths per 100 among Protected.
France . . .	1816—1841,	16,397	16 1-2	1
Quebec . .	1819—1820,		27	1 2-3
Philadelphia . . .	1825,	240	60	0
Wirtemberg . . .	1831,	1,442	27	7
Breslau	1831,	223	53	2
Vienna Hospital . . .	1834,	360	57	12
Lond. Small-Pox Hosp.	1836—1856,	9,000	35	7
Lower Austria . . .	1835,	2,287	25	11

Thus it appears that the death rate among the vaccinated varies from an inappreciable small mortality to 12½ per cent., while that among the unprotected it ranges from 14½ to 53 per cent. Mr. MARSON, who has been Resident Surgeon of the London Small-Pox Hospital for twenty years, and vaccinated over 40,000 persons, and whose long experience gives his opinion greater weight than that of any other man, states that when vaccination is known to have been perfectly performed, the mortality is uniformly found to be reduced to less than one half of one per cent. And it is also an established fact in this country, where vaccination is altogether too voluntary, that the combined mortality of Small-Pox, Scarlatina, and Measles is not now half as great as the mortality formerly occasioned by Small-Pox alone.

Gentlemen may think it strange that I should collect the above statistics at this time, to prove that vaccination confers a large exemption from attacks of Small-Pox, and almost absolute security against death from that disease; but, as I shall strongly recommend compulsory vaccination, I thought it best to fortify my position by the above statistics, as they might at some future time be useful.

But, undisputed as is the superiority of vaccination, and undoubted as are the benefits it has conferred, they are but small indeed compared with those which it is calculated to bestow if the practice of it had been as universal as it ought to have been. It was the cherished opinion of JENNER himself, that we possess, in vaccination, a means of entirely eradicating the Small-Pox; and some facts are on record which seem fully to sustain him in his opinion.

Thus, Sir GILBERT BLANE informs us, that vaccination had been practiced with so much energy and success in Lima, that for the last twelve months there had occurred, not only no deaths from, but no cases of, Small-Pox; that the new-born children of all ranks are carried as regularly to the Vaccination-House as to the baptismal font; that the Small-Pox is entirely extinguished all over Peru, and nearly so in Chili; and he farther adds, that it is a matter of irrefragible historical evidence that vaccination possesses powers adequate to the great end proposed by its meritorious discoverer in his first promulgation of it, namely, the total extirpation of Small-Pox. The first proof, however, we have of this was at Vienna, where, in 1804, no cases occurred, except two strangers who came in the city with the disease upon them. In 1809 there did not occur a single death from it in Copenhagen. True, in the years 1762 to 1792, the number who died from Small-Pox in the Danish Provinces amounted to ten thousand; in 1802 vaccination was first introduced, and, from that period until 1810, but fifty-eight persons died of Small-Pox. At that time, vaccination, by command of the King, was unanimously adopted, and inoculation prohibited; and, between the years of 1810 and 1819, not a single case of Small-Pox occurred.

Dr. LACCO, of Lombardy, stated, in his Annual Report (Jan. 3, 1808) that the Small-Pox had entirely disappeared in all the large towns in that country, and that in the great city of Milan it had not appeared for several years.

Dr. ODIER, of Geneva, says, that after a vigorous perseverance in vaccination for six years, the Small-Pox had disappeared in that city and all the surrounding districts, and, when casually introduced by strangers, it did not spread, the inhabitants not being susceptible.

The Control Committee of Paris testify, in their Report of 1809, that the Small-Pox had been extinguished at Lyons and other districts of France.

Again, in the English Army we have some striking illustrations of the protective power of vaccination, when systematically pursued. In Her Majesty's dragoon regiments, which are submitted to inspection, and vaccinated without exception where it is found to have been omitted, the deaths from Small-Pox, during a period of seven years and three months, on an annual average strength of 6,165 men, were only three — a proportion which would represent an annual mortality of one in 15,000 adults.

In our own country, I can not find that we have much proof of the extirpating power of vaccination; and throughout the length and breadth of this favored land I have no doubt the lamentable fact exists which we find in our own city, — children grown up and mingling in our public schools, and everywhere else, who have never been vaccinated.

But another important fact in favor of vaccination is, that it is more certain in its protecting influence than either inoculation or Small-Pox itself. In the epidemic in Scotland in 1818 and 1819, out of two hundred and five cases unprotected, fifty died, being one in four; out of seventy-one in which Small-Pox occurred a second time, three died, or one in twenty-three; while, out of three hundred and ten cases after vaccination, but one died, making the protecting power of vaccination thirteen times more powerful than Small-Pox itself. Again, in the epidemic in Marseilles, in 1828, among the unprotected, one in four died; among the inoculated, one in five; while, among the vaccinated, only one in one hundred.

Another superiority is, it leaves behind it no deformity, blindness, or lingering disease.

But it has been urged by some that its power, by transmission from one to the other, becomes gradually weaker, and finally dies out. But we can see no more reason why vaccine should die out by transmission than the diseases of Small-Pox, Scarlatina, or Measles. It is a specific disease unlike any other, and we do not understand how it can die a gradual death; that it will continue to generate its own peculiar disease, is far more probable. However, there is pretty strong proof that its protecting influence is not always lasting, and that re-vaccination, after a time, is the only safe measure to adopt. It is a fact that, in proportion to the distance of time that has elapsed from the first imparting of the vaccine virus, so is the better development of the secondary vaccine vesicle produced by a re-vaccination.

Of the results of re-vaccination, no doubt the most reliable statistics we have are those of the Prussian Army, a portion of which are as follows:—In 1836, the entire number of persons re-vaccinated was 42,124; of these, 32,635 exhibited the cicatrices of a former vaccination—in 6,543 the cicatrices were not satisfactory, and in 2,840 there were no traces of them. In the re-vaccinations of that year, regular vaccine vesicles, or pustules, were found, out of 18,138 instances, in 9,940; they were of irregular or imperfect development, and in 14,040 the operation failed in producing any effect, but on repeating it a second time it took effect in 1,569 cases, and again failed in 8,205. The number of pustules varied from one to thirty in different individuals. Among all the persons who were re-vaccinated during this and the preceding two years, fourteen were only attacked with any of the forms of the prevalent varioloid disease. There was not, however, a single case of genuine Small-Pox met with, though the epidemic existed in the country. The lymph employed was usually taken from the arms of young children, and dr

lymph was always avoided. In 1837, the number of troops re-vaccinated was 42,258; of these, 32,249 bore evident marks or traces of previous vaccination; doubtful marks, 6,903; no traces in ———. They were followed by regular pock in 21,308 cases; irregular in 10,537; and had no effect in 15,-393. The latter were again vaccinated, with success in 2,243 cases, without success in 9,771. Of the whole number vaccinated, or re-vaccinated with effect, there were attacked (during the year 1837), with varicella, 14; with varioloid, 7; with true Small-Pox, none.

Again, in Silesia, Dr. AGGENS practiced re-vaccination on 912 persons in 1836. The operation succeeded perfectly in 822 cases; in 68, the pustules did not exhibit a mature or complete development; and in the remaining 72, no effect whatever was produced.

Professor WOOD, of Philadelphia, stated, in his Address before the American Medical Association in this city, that thousands were annually perishing from Small-Pox in this country, for whose deaths we are, as a Profession, in some degree accountable; that there was no occasion for this mortality; and that vaccination and re-vaccination, duly performed, and under proper circumstances, were not an absolute certain, but a nearly certain, safeguard; that he never knew of a death from Small-Pox, after an efficient re-vaccination, and only one instance of varioloid.

Prof. DUNGLISON also states, that there is ground for the belief that, for full protection, re-vaccination is necessary.

But it has been urged as a strong argument against vaccination, that syphilis, scrofula, tuberculous affections, and other blood diseases may be transmitted through the medium of vaccination. Here is a wide field for argument, which time will not permit us to enter upon. The experiments of SIGMUND supported by by HEBRA, HEIM, RICORD, and others are strongly arrayed against this doctrine; still we would earnestly recommend, in all cases, to use pure, healthy virus

alone, as it can always be procured without much additional trouble.

But, as I have stated before, the proof of the protecting influence of vaccination, and the great benefits derived from it, being overwhelming, and the strongest arguments against it appearing to be only theoretical and those of prejudice, your Committee are of the opinion that if we had a law enforcing universal vaccination upon every man, woman, and child, and re-vaccination where it was deemed necessary, that Small-Pox would soon become almost, if not entirely, extinct; and, as it is a certainty that it will never become universal until it is compulsory, we say that the rights of community demand that it should be made so. As it has been stated by a distinguished physician, when speaking upon this subject, "As man has no right to set fire to his own house, for fear his neighbor's might be destroyed, which is the greater evil—that our houses should burn, or our families perish with Small-Pox?" If the evil were confined exclusively to the negligent, the public might possibly have no right to interfere; but whole communities suffer, and government may and ought to step in for their protection, and provision should be made, with legislative sanction, for universal vaccination.

That Small-Pox, for several years past, has been much on the increase in our midst, we all know; and we are safe in saying that within the past three years, there have been thousands of cases and hundreds of deaths from it in our own State. I have not only seen it spreading over a large district of country, but have also seen it conveyed in public conveyances from one part of the State to another, silently sowing the seeds of pestilence along great thoroughfares for a distance of over one hundred and fifty miles. I have also seen the pride of a household, when just in the bloom of beauty and loveliness, suddenly arrested in the course of a happy life, and, after days of the most intense suffering and anguish, rolled up in a sheet, and placed in the coffin a loathsome, rottening mass

of corruption, and borne away in the lone hours of night to the grave. These are sad and mournful facts, which should teach all (as they have taught some) a terrible lesson,—the folly and danger of not availing themselves of the priceless value of vaccination. The great mass know the good effects of vaccination, but are not sufficiently impressed with its importance, and hence are neglectful, and the physician who urges the subject is called a mercenary man, seeking after his fees alone; and the first impulse of human nature is, under these circumstances, to let the community suffer the penalty of their neglect—let them have the Small-Pox, and let them die with it if they want to,—we can make more out of one case of genuine Small-Pox, than by vaccinating a whole township.

But this is not right. If every one was as fully impressed with its importance as the physician, there would be no need of a compulsory law. He vaccinates and re-vaccinates his whole family on every approach of the epidemic, and knows he is on the safe side, and so it should be with every family. To effect that end, your Committee would recommend that the subject be agitated, in every way possible, by physicians in the communities in which they reside. Agitation has been the great secret of reformation in all ages, and to its aid we must look for success in this undertaking. Let the subject be thoroughly brought before the public. They would further suggest that a committee be appointed to again report upon it at our next Annual Meeting, which will be held at Lansing during the next session of the Legislature; and as soon as practicable let a bill be introduced, the main object of which shall be the security of universal vaccination, which shall be compulsory. And I have no doubt that by the co-operation of our brethren throughout the State, this end may be effectually secured, and a machinery readily devised by which it can be satisfactorily and fully carried out.

ART. IV.—Physiology of Metastasis.

By J. Adams Allen, M. D.

Perhaps in the entire nomenclature of medicine there is not an instance of a more unfortunate term than the word *Inflammation;* conveying to the mind of the teacher, as well as the pupil, the idea of certain definite phenomena, it is made to comprehend the most varying and totally dissimilar facts. The Pathologists, deeming their own branch of study antipodial to physiology, have labored to invent modes of operation in disease altogether diverse from those of health; on the one hand, their explanations have been grossly mechanical, and on the other, even absurdly transcendental.

But, not to delay upon this point, we observe, that nowhere is the common term "inflammation" employed more unfortunately than in connection with the phenomena of Metastasis. Thus the latter has been considered by the book-writers but as a mere transfer of inflammation from one point to another, more or less to be deprecated according as the organ affected is of greater or less importance to life. Where this change occurs by continuity of structure, or by simple increase of general disease, or by the influence of diseased blood, or by direct connection of function, it seems little difficult to account for; but in a vast number of instances neither of these conditions are present in the morbid problem to be solved. Anciently, a very proper distinction was established between "transposition of a disease, its nature remaining the same, from one organ to another," and "transformation of a disease into an affection of a different nature, and occupying a different organ," the former was termed *Metastasis*, the latter, *Diadosis*—the etymology of the terms sufficiently indicating the different conditions. The crude ideas with reference to inflammation, prevailing then and now, rendered this an approximation to the truth.

But, through the darkness of Pathology there is a glimmering of a guiding light. Changed conditions of cell-development vary forms and operations, tending ever to the type of those cells ordinarily developed under similar conditions. When the transformation is consistent with the usual function of the part, then it is little noticed; but when inconsistent, we recognize disease. That which is the natural or healthy form in one being, developed in another by the equable operation of the same all-pervading causes, involves impairment and dissolution: hence, definitions of health and disease fail, because the differences are but phases of normal organic life. Whatever modifies cell-action, then may become a cause of disease and death, without giving rise to "*rubor, calor, tumor, et dolor.*"

Medicine, as a science, will make but little progress until the term "inflammation" is discarded, or properly restricted. Thus in *Metastasis* or *Diodosis*, if we leave off the use of this arbitrary term, the phenomena are capable of ample explanation—at least so far as the *modus* is concerned.

An erysipelas spreads gradually along the surface by gradually involving in its changes cell after cell; or, it gradually dips down through the scalp to the cerebral meninges, in precisely the same manner; or, it suddenly leaves an extremity, and seeks the brain or some other internal organ. And so of the analogous phenomena of gout or rheumatism. In these cases, the action is readily, and the sudden change of of locality may often plausibly be, attributed to a *materies morbi* in the blood; but then the question arises, Why is the the original disease mitigated, or even apparently caused entirely to subside? Why are not other homologous organs attacked?

In the exanthems this change of locality is very often seen to occur with startling rapidity and effect. Thus, in scarlatina, subsidence of the external symptoms is often instantaneously followed by grave internal disorders; and this, not

only in the primary disease, but its sequelæ. Dropsical effusions in the serous cavities, or cellular tissue, disappear, and stupor or delirium, convulsions or paralysis and death, indicate clearly enough the new locality.

All practitioners have seen "paralysis of the pneumogastric" suddenly occur in this and many other diseases. Your patient goes on swimmingly for a time—and, *presto*, dies, and no scalpel can display the relics of inflammation. Parotitis descends to the testes, or mammæ, and upwards to the brain, and no *materies morbi* carried by the blood can satisfy us why. A blister cures pneumonia, and the same, or a burn, may cause a bronchitis. A *fistula in ano* relieves or kindles tuberculosis. An herpetic eruption or crops of pustules, too speedily cured, awake diarrhœa or hæmorrhage or hydrocephalus, and so on. These, and scores of similar cases, are examples of Metastasis; but some are slow in operation, and others are speedy, and the marked difference in intensity of the result is apt to draw off the mind from their real connection.

All forms of Metastasis which are not simply continuous extension, or general increase of disease (*e. g.* rheumatism gradually pervading the fibrous tissues), are but examples of the reflex action of the nervous apparatus; not, perhaps, in producing motion or sensation or secretion (*e. g.* the co-relation the skin and kidneys), in the unusually restricted acceptance of that term, but in modifying the nutrition of cells and fluids at one extremity of the nervous fibre, thereby inducing a molecular or integral change at the other extremity of the fibre, which latter change may have its sole result at that point, or be propagated to a tertiary, quaternary, etc., series of cells, and then eventuate in greater or less disorder and derangement. Whilst the reflex effect may be neither motion nor sensation, it may by no means be "engorgement of the blood-vessels," or inflammation or effusion. The varied nutrition is the thing. The mechanism is precisely that of a motion, a sensation, or an intellection.

The only difficulty in appreciating the modus is, in failing to see that the nerve fibre is not the seat of an occult force *sui generis*, to be called into action with uncertain result, but that it is a mere conductor, or indicator, which registers the distal change proximately, or *vice versa*—the result depending solely upon the kind of change and the structure.

The phenomena of traumatic tetanus are confessedly explained by the excito-motory system of HALL. Why does not tetanus always ensue upon a local injury involving a nerve (*e. g.* a nail piercing the sole of the foot)? Hydrophobia is another instance in point. These cases are strictly Metastatic, but the result being *motion*, was explained in 1836. Why does not Metastasis always occur in erysipelas, in rheumatism, in gout, in parotitis, in herpes, etc., etc.?—For the same reason that the rusty nail in the foot does not always produce tetanus, or the cutting tooth convulsions. The modus in each case, when the remote results do occur, is precisely the same, but the peripheral or distal change is not always of such a character as to determine the central or proximal change, in which the Metastasis consists. It is no more remarkable than that storm-clouds should pass harmlessly by the old oak for a century, and finally rive and destroy it.

It is very probable that, by careful investigation, we shall yet be enabled to perceive impending dangerous Metastasis, and prevent it, as we have already, to a limited extent, learned how to cultivate the therapeutic variety. But in so doing we must abandon *idolum verbi*, to wit, "Inflammation." The variety of symptoms often presented by the same disease are, mostly, but the results of true Metastasis. Thus in cholera, convulsions, an "excito-motory" result, may occur, or collapse, which is but the indication of internal fatal modification of nutrition—an "excito-secretory" result. Hysteria and Dyspepsia are striking illustrations of this principle. The hysterical joint of Sir BENJAMIN BRODIE is a Metastatic condition; the shooting pain from the epigastric to the interscapular

region of confirmed dyspeptics is but an incident of reflex action. Diabetes affords many remarkable proofs of similar import. Arising centrally, or peripherally, it may eventuate in general atrophy, in dropsy, in hemiplegia, or other paralysis, in cutaneous eruptions, or in apoplexy, etc. It is important to observe that the result is almost invariably reflex and strictly Metastatic. So in ague, where we every day see the reflex cell-modifying effect, producing the "masked" forms known to the books and practitioners; the chill, fever, and sweat, are simply distinct Metastases. The neuralgia, or asthma, the cholic, or diarrhœa, the vomiting, the jaundice, or the cutaneous eruption, proceed from the same cause.

I recollect a case occurring in the practice of my former colleague, Prof. N. HARD, now deceased, where, after fracture of the lower dorsal vertebra, the patient was seized with a regular tertian, and shook, grew hot and dry, and finally broke out in profuse perspiration above the fractured point, but the lower half of the body and extremities continued unchanged in temperature or appearance throughout.

Many remarkable exemplifications of the same modus might be adduced, but I reserve further remark for a future paper.

KALAMAZOO, February 28th, 1858.

ART. V.—Curability of Consumption.*

BY N. WILLIAMS, M. D.

THE belief that Pulmonary Consumption can not be cured is generally prevalent out of the Profession, and current to some extent within its limits—at least, so far as my observation extends, such is the fact. And so remarkable is the

*Read before the Ionia County Medical Society, Jan. 12, 1858.

skepticism of some physicians upon this point, that if others profess to have cured the disease, they will not admit the justice of their claim, and affect to believe it was not phthisis, but some other disorder; virtually, they allege that the attending physician knows less of the case than themselves, or that he has willfully misrepresented it. True it is, that men may hold to the foregoing sentiment, and that, too, conscientiously; but there are those who think differently, and who are equally honest and sincere. We judge others by ourselves, and in this we err. The standard is not always a reliable one, for "nothing differs more than man from man"; and whilst some in the Profession could not excise a simple tumor, there are others who have performed every operation, from the extraction of a tooth to the puncturing and removal of fluids, even from the pericardium itself. As in Surgery, so it is in the treatment of disease; and the difference in our achievements may vary no less in this respect, than in our surgical attainments. Well is it thus—well is it that our talents and capabilities are diversified; for by this means, the various departments of Medical Science and Practice are cultivated by those best adapted to them. It is not, therefore, safe to say, because we have not done thus and so, others have not, and because we have never cured a given disease, that others can not cure it.

So far, however, as the foregoing question is concerned, we must conclude from *symptoms*, whether phthisis really exists, and their removal is evidence of the cure of the disease. Strange indeed, if, when the symptoms have been fairly overcome, and the health of the patient has been fully restored, that we are to consider we have not cured Consumption, but bronchitis, or some thing else! If cough, purulent expectoration, gurgling, cavernous respiration, etc., indicate phthisis before recovery, why should they not afterwards? What has changed their meaning? Is their testimony "too good" to be true? But let us consider further in reference to this subject.

Symptoms are witnesses, and their office is to inform the physician of the nature and location of disease. To this end they contribute, and they utter pathological truths to the medical observer not to be misunderstood. I claim, therefore, that the removal of genuine phthisical symptoms, is evidence of the cure of the disease, and that, under such circumstances, we should not seek to connect them with some other malady.

And in urging the sentiment, that phthisis *may be*, and *often is, cured*, I am not only warranted by the foregoing considerations, but our latest and best authorities on this subject are of the same opinion. SWEET, SWEETSTER, NEWTON, GREEN, LOUIS, CLARK, WILLIAMS, BENNET, ANDRAL, BOUDET, etc., are among them, and testify, in effect, that cases of recovery are not uncommon.

I might quote from these writers to great extent upon this point, but it would be a work of supererogation to do so; suffice it, therefore, to offer the following, as illustrative of the question under consideration:

Says Dr. BENNET, of Edinburgh, in his great work on "Tuberculosis": "It is a matter of very great moment, to show, not only that tubercles may be arrested at an early stage of their development and when they are limited in extent, but that cavities of large size may be completely healed, and leave, even in the midst of healthy lung, unequivocal traces of their tubercular origin." He also adds: "If, then, the further deposition of tubercle could be arrested, there seems no reason why cavities in the lungs should not heal with the same frequency as abscesses in other internal organs. Indeed, the careful dissections of morbid anatomists have recently shown that this arrestment, instead of being of rare or occasional occurrence, really happens with extreme frequency." These conclusions, it will be perceived, are not of a speculative or hypothetical character, but are based upon post-mortem dissections and observations, which render them of infallible and unmistakable import.

In an article written by Dr. Cox, of New York, in allusion to the late Dr. PARRISH, of Philadelphia, he says: "He had tubercles at about twenty years of age. In 1823, his health having then been good for twenty years, he informed me of his case; and said, that such was the prejudice of medical men, that they would listen to no facts, or arguments, on the subject; and that he did not speak of it, as it only made them laugh." On the death of Dr. PARRISH, his lungs were examined, and his own opinion was found correct. He had had phthisis, recovered from it, and, eighteen years since, died of some other disease. Thus do "men prefer darkness rather than light," and the mazes of their own unbelief to the truths which Anatomical Science has furnished for those more willing to "come to a knowledge of the truth."

Most emphatically, therefore, do I dissent from the conclusion, that because a patient has recovered, he could not have had Consumption—to this "we demur," in legal parlance. On the contrary, I am satisfied that most physicians of experience have witnessed instances of its cure. For one, I have had cases in my own practice, and at least one of the kind now under treatment, and in an advanced state of recovery.

Such considerations as these should have their due and legitimate influence upon both patient and physician. And whilst to the one, they afford the health-restoring influences of hope, to the other they are an intimation that, under an appropriate system of treatment, *many are the cases of Consumption admitting a cure.*

IONIA, Michigan, January 22d, 1858.

ART. VI.—Valerianate of Ammonia.

By Frederick Stearns, Pharmaceutist.

In a paper published in the *Peninsular Journal of Medicine*, for June, 1857, I stated a method of preparing a syrupy solution of this salt from commercial valerianic acid, each teaspoonful of which represented four grains of the crystalized valerianate; as the use of this valerianate has increased and the demand is often for it in crystalized form, I propose, as an addenda to my former paper on the same subject, to state more in detail the method I employ for preparing, first, Valerianic Acid, and, secondly, its Ammonia Salt.

Valerianic Acid is produced when purified amylic spirit, or fusel oil (C_{10} H_{11} O + H O), is acted upon by a mixture of sulphuric acid, bichromate of potassa, and water; by means of these oxidizing agents, the amylic spirit gains two equivalents of oxygen, and loses two of hydrogen, and becomes (C_{10} H_9 O_3 + H O) Valerianic Acid. Crude fusel oil is readily obtained wherever alcohol is distilled in large quantities from corn or potato spirit, it forming a portion of the residue left in the still when the pure spirit has been drawn off. The cost of the crudely-washed amylic spirit is about one dollar and fifty cents per gallon. It is further purified by washing with water, and subsequent repeated distillation from chloride of calcium, preserving only for use that portion which comes over at a temperature of from 269° to 275° F.

The process for preparing the Acid is as follows:

Take Bichromate Potassa . *four and a half ounces.*
Sulphuric Acid . . *three and one-fourth fluid ounces.*
Pure Fusel Oil . . . *two fluid ounces.*
Water . . . . . *two pints.*

First powder the bichromate of potassa; add the water, previously heated to about 150°; then add the sulphuric acid

gradually; and when the solution has cooled, place it in a Florence flask, or retort of suitable size, and adapted to a receiver; then add the fusel oil, agitating the mixture; when the action has ceased, and it has cooled to 80°, connect the flask or retort with the receiver, and apply the heat; distil one quart, or until the contents of the flask froth up. The distillate, consisting of a watery solution of Valerianic Acid, is then—after having removed the thin superstratum of apple oil (valerianate of oxide of amyle)—to be neutralized by means of a solution of caustic soda, and evaporated until of a syrup consistency. This dense solution of valerianate of soda is then to be decomposed by means of muriatic acid, adding it in slight excess; the oily Valerianic Acid rises to the top, and is removed by means of a pipette or small glass syringe, and is purified by rectification repeatedly over chloride of calcium.

To prepare crystalized Valerianate of Ammonia from the Acid, a portion is super-saturated with freshly-powdered carbonate of ammonia. It should be prepared in a wide-mouthed, loosely-stopped bottle, adding the carbonate of ammonia gradually until the solution shows an alkaline reaction to test paper. In the course of twenty-four hours, it changes into a snow white, irregularly crystaline mass; this, from its deliquescent nature, should be placed in closely-stopped vials, containing not over one-half or one drachm each.

The minimum dose of the Salt is stated to be from four to six grains, in water or syrup.

DETROIT, March 15th, 1858.

ART. VII.—Meteorological Register for Month of February, 1858.

FURNISHED BY U. S. MARINE HOSPITAL, DETROIT.

DATE	BAROMETER.			TH'MOMETER. ATTACHED			WINDS—COURSE & FORCE.			WEATHER.			SNOW.			REMARKS.
	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCH.	
1	29·	28·9	28·7	20	32	30	N.E. 2	N.E. 3	N.E. 2	Cloudy	Cloudy	Cloudy	3 P.M.			
2	28·6	28·5	28·8	28	32	28	N.E. 1	N.E. 4	S.W. 3	Cloudy	Cloudy	Cloudy		9 P.M.	·19	
3	29·	29·	29·	29	22	13	S.W. 4	S.W. 5	S.W. 2	Cloudy	Fair	Fair				
4	29·	29·	29·	15	21	15	S.W. 1	S.W. 3	S.W. 2	Cloudy	Cloudy	Cloudy				
5	29·	29·1	29·	14	19	13	S.W. 2	S. 5	S.E. 2	Cloudy	Cloudy	Cloudy				
6	29·	28·9	28·9	15	29	28	S.E. 1	S.E. 2	S.W. 3	Cloudy	Cloudy	Cloudy	2 P.M.	6 P.M.	·005	
7	29·	28·9	29·	27	32	19	S.W. 2	S.W. 4	S.W. 2	Cloudy	Cloudy	Cloudy	9 A.M.	12 M.	·01	
8	29·	29·	28·9	21	33	28	S.E. 2	S.E. 1	S.W. 2	Cloudy	Cloudy	Cloudy				? Inaccurate.
9	28·7	28·6	28·7	29	36	28	E. 2	S.E. 2	S.W. 3	Cloudy	Cloudy	Cloudy	4 A.M.	8 P.M.	·22	
10	28·8	28·9	29·	15	9	14	S.W. 4	S.W. 3	S.W. 1	Cloudy	Fair	Fair	8 A.M.	12 M.	·008	
11	29·	29·	29·	—10	6	—10	S.W. 2	S.W. 2	S. 2	Fair	Fair	Fair				
12	29·	29·	29·	14	20	14	S.W. 1	S.W. 1	S.E. 1	Fair	Fair	Fair				
13	29·	28·9	28·8	13	21	20	N.E. 2	N.E. 4	S.W. 2	Cloudy	Cloudy	Cloudy	3 P.M.	10 P.M.	·12	
14	28·9	29·	29·	19	25	17	S.W. 2	S.W. 3	S.W. 2	Cloudy	Fair	Cloudy				
15	28·9	29·1	29·1	19	26	13	S.W. 2	S.W. 3	S.W. 3	Cloudy	Fair	Cloudy				
16	29·1	29·1	29·1	14	16	6	S.W. 2	S.W. 2	E. 2	Cloudy	Fair	Fair	4 A.M.	8 A.M.	·01	
17	29·1	29·2	29·1	0	15	17	N.N.W. 1	S.S.W. 2	S.W. 2	Fair	Fair	Fair				
18	29·	29·2	29·	12	24	15	N. 1	N.E. 2	S.W. 2	Cloudy	Fair	Cloudy				
19	28·9	28·8	28·8	9	15	12	N.E. 2	W. 2	S.S.W. 2	Cloudy	Cloudy	Cloudy	8 A.M.	5 P.M.	·17	
20	28·9	28·9	28·9	8	22	18	E.S.E. 2	S.W. 3	S.W. 2	Cloudy	Fair	Fair				
21	29·	29·	29·	21	30	0	S.W. 2	S.E. 2	S.W. 2	Cloudy	Fair	Fair				
22	29·1	29·1	29·2	—2	12	4	W. 5	W.S.W. 2	S.W. 2	Fair	Fair	Fair				
23	29·2	29·2	29·1	—1	22	9	W. 1	S. 1	W. 2	Fair	Fair	Fair				
24	29·	29·	29·	12	31	16	N.E. 4	S. 3	W. 2	Cloudy	Cloudy	Cloudy				
25	28·9	28·9	28·9	18	36	15	S.W. 2	W. 3	S.W. 2	Cloudy	Cloudy	Cloudy				
26	28·9	28·9	28·8	12	34	27	N.E. 2	E. 2	S.W. 2	Fair	Fair	Cloudy				
27	28·2	28·2	28·2	38	48	32	S.W. 3	S.W. 3	S.W. 2	Cloudy	Cloudy	Cloudy				
28	28·2	28·2	28·4	33	39	33	S.W. 2	W. 2	S.W. 3	Cloudy	Cloudy	Cloudy	1 A.M.	1:3 A.M.		? Inaccurate.
29																
30																
31																

Bibliographical Record.

THE PHYSICIAN'S HAND BOOK OF PRACTICE, AND MEMORANDA FOR 1858: Containing a Classified List of Diseases, with their Symptoms, Complications, etc.; an Alphabetical List of Remedial Agents, with their Properties, Preparations, and Doses; a Classified List of Poisons, with their Symptoms and Antidotes; Examples of Extemporaneous Prescriptions, and Abbreviations of the terms used in Prescribing, with their Translation into English. To which is added a Record for Daily Practice, prepared for the Names of thirty, or sixty Patients, and other Memoranda. Second Edition. By WM. ELMER, M. D. and LEVI REUBIN, M. D. New York: Stringer & Townsend, 1858.

A LONG title to a very small book; the title could not, however, be any shorter, for it is but a simple enumeration of the contents of the little book. It constitutes the union, in a pocket form, of a very much and very judiciously condensed manual of *practical* medicine, and the Physician's Visiting List, and other memoranda. To those who rely upon this kind of assistance to the memory, the little work under consideration must prove of very great value. The blanks, comprising the visiting list, a register for important cases, general memoranda, names and addresses, obstetric cases, bills and accounts made up, and names and addresses of nurses, we think are superior to any that have heretofore been published. We would suggest to the publishers the propriety of issuing an edition of the blanks, without the practical manual. We doubt not that the wants of very many call for an ample but compact form of blanks, occupying but little space in the breast-pocket. The comprehensiveness, shape, and size of

these blanks are admirable, and, without the manual, would form a remarkably thin volume, the presence of which in the pocket would hardly be noticed. G.

THE PACIFIC MEDICAL AND SURGICAL JOURNAL. Edited and Published by JOHN B. TRASK, M. D., and DAVID WOOSTER, M. D. Vol. I. No. 1. San Francisco, 1858.

Two or three attempts have been made in California to maintain periodical medical literature. Considering the failure of these very creditable attempts, we can not but admire the enterprise and boldness which have prompted the establishment of the *Pacific Medical and Surgical Journal*, the 1st No. of which has just reached our table, and gives us great hopes of its permanence. It is edited by JOHN B. TRASK, M. D., and DAVID WOOSTER, M. D. It gives us pleasure to welcome them to the fraternity, and to what we consider the not unpleasant duties of Medical Journalism. Dr. WOOSTER is, if we mistake not, a Wolverine, and as such, we extend to him our editorial digits for an extra pressure. G.

Editorial Department.

Salutatory.

The respective readers of the *Peninsular Journal of Medicine* and the *Medical Independent* have already been informed of arrangements for the consolidation of those two Journals into a new one, and that the present issue, under the present name, would appear at this time.

As this Journal,—The Peninsular and Independent—will be continued to the subscribers of the former Journals, unless, at the option of either, other arrangements are made, it is but just to those subscribers, as well as to all others whom we ask for support, or who may wish to take a journal of this character, that its objects and general policy should be clearly set forth.

The object in the consolidation which has occurred, and in the establishment of The Peninsular and Independent, is not to advocate and advance any specific measures or particular course of Medical Policy respecting which there are differences of opinion among the legitimate and recognized members of the Profession; neither is the object to advance the interests of any particular party, clique, or set of men at the expense of any other set of men whatever. This Journal is not to be the organ of any particular portion of the Profession—of any Section, or any School.

The right to establish organs of this kind, for the purpose of advocating particular measures, or representing particular schools or parties, or even the policy of doing so under

particular circumstances, is not questioned—it is only stated that such is not the object of this Journal. The interests which in this enterprise are attempted to be combined will not allow of such a policy; and it is foreign alike to our feelings, as well as to what we regard the best interests of the Profession among us, to be engaged in the controversies which would naturally occur in the organ of any party capable of being assailed.

In saying this, we by no means pledge ourselves to silence on all or any subjects of professional conduct or medical policy respecting which there may be differences of opinion among recognized medical men—we hope the Journal will ever be found firm in the maintenance of those great principles of Medical Ethics recognized and enforced by the highest authority among us; but it is promised that on all questions not already settled in the Profession, and which it shall be deemed proper to have introduced, its pages shall be open to a fair and courteous expression of opinions and statement of argument on either side, so long as improper personalities are carefully avoided.

Our ardent wishes are to make the Journal the organ of the whole Profession within the range of its circulation—to furnish a medium for the dissemination of professional knowledge, and the interchange of professional opinions—to build up a domestic medical literature, while, at the same time, we shall attempt to give a synopsis of medical intelligence, and record the improvements made in our Science and Art in every part of the world.

In the furtherance of these intentions, we have the assurances of the co-operation of a large number of the Profession—of those who have hitherto contributed to the former Journals, besides others whose productions have not appeared on their pages.

Of the manner in which the general scientific and literary interest of the new Journal will be sustained, those who have

been readers of its predecessors must judge for themselves. We can assure all, that efforts will not be abated, and that no labor and pains will be spared to make THE PENINSULAR AND INDEPENDENT not inferior in these respects to any of its cotemporaries.

We have great confidence in the additional interest and value which will be secured to our readers, by the establishment of the Pharmaceutical Department. A majority being practitioners, residing out of cities and larger commercial towns, in which latter places alone Pharmaceutists devoted to that business can find sufficient support, are under the necessity of selecting and preparing their own medicines, and dispensing their own prescriptions (indeed, all practitioners have more or less to do in this way—at least they direct the particular formulæ to be used); and in the conducting of the Pharmaceutical Department, special reference will be had to the condition and wants of the great body of practitioners. A physician's success so essentially depends upon the purity of his medicines, and the accuracy and neatness with which they are prepared and dispensed, that the importance of being instructed on all these points, and of being informed of all the latest improvements in rendering medicines more uniform and reliable in effects, and more eligible and agreeable in form, can but be appreciated by all. It is also intended to make this department important to Druggists and Pharmaceutists; and as all intelligent gentlemen of this class feel an interest in the general affairs of the Medical Profession, with which they have such intimate relations, a large circulation and extended field of usefulness among them is anticipated.

On the subject of controversies and personalities, from the peculiar circumstances under which this Journal has commenced, and as a guide to our future contributors and correspondents, it seems proper that we should be somewhat more explicit, and, once for all, that our course should be definitely

stated and distinctly defined. By an agreement made between the editors, it is specified that, "both in the production of their own pens, and in the contributions and selections, they will guard with vigilance against the indulgence of any partisan feelings or practices; that they will guard against the revival of past controversies connected with the history of the former Journals, or any of the persons and parties connected in any manner with them; that all improper personalities shall be excluded, and all subjects specially tending to the production of personalities, or the engendering of feelings inconsistent with the proper peace and harmony of the Profession; and that, in every way, due courtesy and forbearance shall be exercised towards all." In the observance of these rules, we shall endeavor to exercise a wise discretion, but a firm execution, guarding with vigilance the general peace of Profession.

Knowing how futile will be all our attempts at making the Journal what we desire, without the co-operation and and support of the great body of the Profession around us, we ask them for their active aid, both by their contributions and subscriptions, so long as we shall seem to deserve it.

A. B. PALMER.
MOSES GUNN.
FREDERICK STEARNS.

Editorial Individuality.

The species of acquaintance which is formed between the Editors of Medical Periodicals, and between them and their general readers, constitutes an interesting feature of periodical medical literature. This interest is entirely independent of acquaintance of a personal nature, and not unfrequently leads to the formation of bonds of sympathy hardly surpassed by ties resulting from personal intercourse. Mental and moral traits are evinced in editorial writings, oftentimes not less unmistakable than those which are shadowed forth in daily

friendly and professional intercourse. We thus gradually arrive at a *feeling* of acquaintance, the pleasure of which is only surpassed by that which is experienced in the manual grasp, and the recognition in which eye answereth to eye. A large portion of the readers of medical journals, also, experience this *feeling* towards the editors whose writings they periodically peruse.

The appearance of a journal upon our table, is not unlike the receipt of a letter from a friend, in which congeniality of thought strikes an answering chord, or a sentiment advanced awakens thought and prompts investigation. For ourself, we never read an editorial without experiencing a desire to know *whose* thoughts are addressing us, and, in the absence of this knowledge, we fail to derive a full degree of satisfaction. We regret that some of our editorial brethren choose to retire behind a signature which completely shrouds their individuality. We assure them that we would much prefer to know them more intimately. Will they not append their initials to their articles? The authorship of the editorials in the PENINSULAR AND INDEPENDENT will always be designated by our respective initials. G.

Reform in Weights and Measures.

The discussion of this reform has been continued by Prof. PROCTOR in a recent editorial (*American Journal of Pharmacy*, Jan., 1858), and by EDWARD PARRISH, in the March No. of the *Druggists' Circular*, both taking opposite views to those of Dr. GUTHRIE, expressed in his Report to the American Pharmaceutical Association, and of the writer, as stated in his article upon this reform, published in the November No. of the *Medical Independent*. They are advocates of the duodecimal system, from its convenience in dividing, even by the eye, *material* substances into halves, quarters, and eighths, over that system which requires such to be divided into tenths.

Now, if, as admitted by Mr. PARRISH, the calculation of mere numbers is best facilitated by the *decimal* way of reckoning, why is it not best to adopt that for all our scales of measurement, and for convenience sake apply the only special practical value of the duodecimal system to it, by using sub-divisions on the latter plan of the standard divisions of the decimal one; for example, the decimal pound, ounce, drachm, and scruple, in a set of weights and measures, could each be followed by its half and quarter, representing, decimally, five-tenths and twenty-five hundredths of each, as this same method is even now employed in our sets of weights. We think the utility of the duodecimal way of calculating would be retained.

We really can not agree with Mr. PARRISH in his desire to reform our coinage (such a change would make its eighths and sixteenths like those of the Mexican coinage), because we deem that the force of the argument, so far, is in favor of the reform of all systems of measurement, adapting them to the decimal systems of notation and coinage, and from the belief that the present and persistent use of Mexican sixpences and shillings, aside from their abundance in our circulation of coin heretofore, is due to the increased *profit*, obtained by their employment in small retail sales, there being usually as much of an article given a purchaser for a half-dime as for a sixpence, and as much for a dime as for a shilling.

The argument in favor of applying new names to the divisions of a new system loses, we think, much of its force, when it is remembered that each proposed decimal weight is nearest to that one in the present system from which it takes its name, and the addition of a symbol or the word "*new*," when the divisions of the new system were written or expressed, until it became thoroughly known, would be much easier than to remember the relations between the divisions of the present system and those of the proposed one, under new and strange names.

The admission of the fact that the decimal system is best adapted to the expression of great or minute quantities proves to us its applicability, in preference to the others, to our weights and measures, because we have shown that in practice, the principal advantages occurring in the use of duodecimals may accompany it.

So far in the discussion of this reform, the arguments are in favor, we think, of the applicability of the decimal plan to our wants, but we hope to see the views of others who are interested in this movement expressed through the pages of our Journals. F. S.

Agreeable Medicines.

We notice, with pleasure, the many efforts made nowadays by Manufacturing Pharmaceutists to overcome the nauseous taste and repulsive nature of medicinal agents, by putting them into forms the most agreeable to the taste and attractive to the eye.

Among the latest improvements of the kind is that of enclosing medicines employed usually in a pillular form in a coating of sugar and gelatine.

Cane sugar, in combination with gelatine, seems to us especially applicable to the covering of pills, and of more practical utility than the old ways, because the process can be conducted at a low temperature, without injury to the most decomposable of saline or extractive matters. The coating, being perfect, protects them from air and moisture, and tends to preserve them for a long period in warm climates; this coating readily dissolves in the stomach, which advantage does not apply to pills coated with gold or silver leaf, or with the gum-resins. Patients that have a strong aversion to taking medicines in the pillular form, readily overcome that feeling in taking these.

Our readers will find, in the Advertising Department, lists

of these preparations as made by TILDEN & Co., and as imported by Mr. REICHARD, of New York. F. S.

Publishers' Card.

THE PENINSULAR AND INDEPENDENT MEDICAL JOURNAL will be issued promptly upon the first day of each month.

We are confident that, from its abundant and able literary resources, this journal will assume a front rank in the periodical Medical Literature of the country. We are assured of the determination of the Editors to make it of real interest and of practical value—worth many times its cost—to all interested in the progress of Medicine and Pharmacy.

We have fixed the yearly subscription at the lowest amount at which such a Journal can be afforded, and made to pay its own expenses, even upon the largest of average subscription lists. In contracting, therefore, to publish it for a certain period of time, we have counted its cost, and are determined to adopt, and strictly to adhere to, the *Cash System*, and accordingly shall invariably require from all who become subscribers, the pre-payment of the yearly fee of two dollars.

Those gentlemen who receive this No., and not the succeeding ones, will understand a non-compliance with our terms to be the reason why it is not sent them.

Physicians, Druggists, Dentists, Chemists, and many Artisans will find in our Advertising Department, the business cards and lists of specialities of many of the best commercial and manufacturing houses in the Union, which, from business intercourse and from a personal knowledge, we can commend commend with the utmost confidence.

A Catalogue and Prices-Current is inserted in the advertising department, for the use of the Profession. It is to be corrected monthly, and will give them the current value of almost every article they require.

HIGBY & STEARNS.

Selected Articles.

On the Use of Biniodide of Mercury, in Combination with the Rays of the Sun, for the Cure of Goitre.

By F. J. Mouat, M. D., F. R. C. S.,
Inspector of Jails and Dispensaries, Bengal.

In the districts about Motiharee, Segowlee, Bethiah, Bhagoha, and on to Goruckpore—indeed, along the whole line of the Teraie—the goitre is so prevalent that it can scarcely be an over-estimate, to state that, in many localities, one individual in ten is afflicted with this horrible disorder.

In some cases the tumor attains a certain size, and passes into a chronic state, without serious inconvenience to the person affected; in others it increases rapidly, and, at the end of a few years, after becoming an enormous excrescnce, terminates in loss of intellect in some cases, and in others in death.

In the cold weather of 1854–55, Captain Cunningham, second in command, 12th Irregular Cavalry, began to apply the Biniodide to the goitre in the following manner:

An ointment was prepared, according to a formula, as follows:—

Melt 3 pounds lard or mutton suet, strain and clean; when nearly cool, add 9 drachms of Biniodide of Mercury, taking care to make the powder fine by trituration in a mortar.

Work in the mortar until no grains of red are apparent in the ointment, and put in pots for use, taking care always to keep both powder and ointment from the rays of light.

Use as follows:—

About an hour after sunrise, apply the ointment to the goitre with a spatula made of ivory or thin broad smooth bamboo, quantity according to size of tumor; rub it well in for at least ten minutes. Let the patient then sit with his goitre held well up to the sun, and let him remain so as long as he can endure it.

It is probable that, about noon, he will suffer severe pain from the blistering effect of the ointment, although no pustules are raised on the skin. About 2 p. m. the ointment should again be applied with a very

careful and tender hand; and the patient should be dispatched to his home, with orders not to touch the ointment on any account with the hand, but to allow it to be gradually absorbed, which absorption will be complete on the third day.

This treatment is quite sufficient for an ordinary cure. Should the case be a very bad one, the patient is ordered to return next year, for the removal of what may remain of the tumor. Except in goitres of the very largest size, this is seldom necessary. After the application of the second year, no goitre has been known to continue.

The patients begin to come about the middle of November, and continue to the end of March; after that time, the sun's rays act so violently on the medicine, that it is not advisable to apply it.

The cures effected have been very numerous. On my arrival at Segowlee, I was glad to join Captain CUNNINGHAM in this good work; but with him rests all the credit of having established it.

The cases are not now so numerous as in 1855. At that time, 500 or 600 were not unfrequently treated in a single day; a small charge of 2 pice for each cure was levied for some time, in order to make to make the people set more value on it; but as this seemed to check some patients, it was discontinued.

Until lately, no exact account of the numbers treated has been kept; but, since Captain CUNNINGHAM commenced, up to the present time, it can not have been less than 60,000. Many come from a very great distance—Goruckpore, Mozufferpore, Mulaye—but the cases in the vicinity are decidedly less numerous; in fact, the disorder is being extinguished. In no case, except one, have we failed to make a complete cure during the second year.

I am now on the point of departure for England, and I should be glad to think that the medicine might be continued to the people. I would propose that stations for its application should be established at Mozufferpore, at Motiharee, at Segowlee, at Bethiah, at Rutawal or Bhogaha, at Ramnuggur, and at Goruckpore. To each station might be appointed a dresser, on rupees 8 per mensem, to apply the ointment, which should be furnished monthly from a central station. It would be proper to order that the ointment be always applied in presence of the dresser. If given to be carried off, it will be sold. Nothing else on the subject strikes me at present; but cases have occurred when the patient rubbed off the medicine, when the smart became severe, and therefore the patients should be kept until sunset, after the stuff has been rubbed on. Any cooly can be taught to do it; all my servants apply it, and some of the troopers. A tender hand, and gentle use of the spatula, after softening the ointment by working up, is all that is needed.

Enclosed is the list of cases treated since the commencement of the present year by me. Capt. CUNNINGHAM has treated many hundred cases

in addition to these, and, as I write, patients are pouring into the compound. Setting humanity aside, I think that, in a financial point of view, it would pay Government to get these poor people cured, for each life or each sound man must be worth at least one rupee per annum to the revenue.

It appears to me, that the rays of the sun, either by some chemical action on the ointment, or by causing its more rapid absorption, have much to do with the cures effected; but I am about to make the experiment of treating one man by night, before a large fire, and comparing the case with one of a similar size and standing, treated in the usual way.

By this means, I hope to ascertain how much of the cure depends on the action of the sun's rays, whether as regards chemical properties or the absorbents of the skin.

[*Indian Annals of Med. Science, and Virginia Med. Journal.*

On Exsection of Bones—Re-Production of Parts, &c.*

By E. S. Cooper, A. M., M. D.

It has been known from immemorial time that lost structures are frequently re-produced. At present no intelligent medical man does not know that under favorable circumstances all structures are likely to be re-produced save those of cartilage, muscle, and brain. Cartilage is some times re-produced in very young subjects, but for the most part, its loss is supplied by the re-production of bone. Lost muscular substance is never re-produced, but tendon is replaced instead. It now becomes a question with me whether brain is not re-produced, though, so far as I know, the subject has never occupied the attention of medical men.

Perhaps of all lost structures, bone is the most surely re-produced, particularly after the middle period of life. In fact, after the age of forty, the human system tends strongly towards the bony formations; and while many other structures give place to bone even before that age, bone never changes into any of the other tissues. The arteries often become ossified, muscles become ossified, tendons become ossified in the advanced period of life; and my impression is, that in nearly all cases of healthy persons, bone is mnch more surely re-produced than any other structure. Physiologists have not, so far as I know, attempted to settle the question, as to whether brain is ever re-produced, and yet it strikes me that much evidence might be adduced in favor of the proposition that such is the case.

But having touched upon this question, I shall leave it for the decision of others, and pass on to the consideration of the practical points of my subject.

* Read before the Pacific Medical and Surgical Association, Dec. 17th, 1857.

Much is now known in regard to the practical results of re-production of bone, under favorable circumstances, after exsections, which was not known a few years since.

Among the more daring of the present European surgeons, operations are boldly performed, comparatively regardless of the extent of incisions requisite for the exsection of bones. Perhaps they carry the practice of exsection too far when applied to the hip joint, seeing that the dangers attendant upon the operation of cutting through the immense amount of soft parts to complete this operation, can only justify the procedure in cases which are hopelessly incurable otherwise. But upon the elbow, wrist, ankle, and even knee-joints, a judicious operation would seldom jeopardize a patient's life, and promises favorable results in nearly every instance, if the patient be otherwise healthy, and the case skillfully managed.

Probably there are no more praiseworthy achievements in surgery than the exsections of joints, and their restoration by re-production. But SYME, FERGUSON, and others, pioneers of this department of practical surgery, have omitted what I conceive to be a very important duty, viz.: giving more definite rules for the guidance of those who are to follow them in the performance of these operations. In fact, their own operations are often very deserving of censure; at least in one respect, if no other,—they make too many transverse incisions, and make them too long. It is true the transverse incisions afford the greatest facility for the removal of the diseased bones; but that convenience, the surgeon should always be willing to forego, in order to avoid the sacrifice of blood-vessels. It matters little about the length of the longitudinal incisions upon the arms and legs, if judiciously made; but the transverse incisions sacrifice both blood-vessels and nerves, and consequently endanger the safety of the extremity in proportion to their extent.

It is a very easy matter to exsect the entire ankle, wrist, or elbow-joints, without dividing a single important blood-vessel.

The most common fault usually committed by surgical operators is, that they do not allow themselves sufficient room by free longitudinal incisions, but cutting a little, first in one direction and then in another, they divide a large amount of tissue, and yet do not give themselves space to remove with ease the diseased bone. The process of re-production of bone is always tedious, and is some times rendered doubly so in consequence of the exfoliation of a considerable portion of the sound bone.

In saw an arm in a physician's office, in this city, in which a good result was promised, had time been allowed for the cure to be completed. In that case a large piece of bone had exfoliated, and caused the part to become painful, and was the means of its being amputated. I do not know the circumstances connected with the history of this case, as the physician was absent at the time I saw the arm; but was informed that the patient becoming dissatisfied, had consulted some other practitioner, who cut off

the limb. The arm was evidently sacrificed, as a new joint was already in process of formation.

In this case there was a piece of exfoliated bone still retained, which kept the part more or less painful for some time, and probably caused the the patient to consult another practitioner, by which he lost the arm. My present plan is, to keep a communication between the outer surface and the ends of all the bones operated upon in exsection of joints, until I become satisfied that all the bone disposed to exfoliation has been thrown off; and it would be difficult, if not impossible, to decide upon this matter, since healing may take place without having the wound kept open, and the part remain comparatively healthy for some weeks before a portion of bone disposed to exfoliate gives rise to any great amount of local inflammation.

More or less exfoliation often takes place after exsections, even when all the diseased bone has been carefully removed. The violence necessarily done the bone during the operation, may, and often does, cause this result, especially if the cancellated structure near the end of the bone has been passed through in the operation, which occurs in the large majority of cases.

Bones are re-produced to an extent beyond any of the softer tissues, and I am convinced that the shaft, or body, of the long bones might often be re-produced after removal, provided the blood-vessels and nerves were left undisturbed in the operation.

I have, in several instances, removed all the carpal, and most of the metacarpal bones, as well as the ends of both the radius and ulna, always with the finest results. In fact, my experience convinces me that it is not material now much of one of the long bones is removed, a re-production will take place almost as surely as if a smaller portion merely has been exsected.

If I had a case in which the entire bones of the arm, forearm, and wrist were diseased, I should not hesitate to remove them, under the fullest confidence that re-production would take place, provided there was nothing in the state of the patient's health otherwise to contra-indicate. There would be a re-production of soft tissues first, and with that the limb might be used more or less, but, as shown before, all the other structures tend to the bony formation as age advances, and it is a principle universally recognized, that nature tries to replace the same substance in the same place as that lost, in all cases, save it be in regard to cartilage, muscle, and brain — therefore, both analogy and experience would tend to prove that re-production might rationally be expected in such cases.

The following are among many similar cases I might detail in support of my opinions:

Mrs. A. M., aged 29, near Peoria, Ill., mother of two children, was thrown from a high lumber wagon, in May, 1852, which caused a luxation of the right ankle joint, and much bruising of the foot otherwise.

In February, 1854, she consulted me, when I found that a probe could be passed along the sinuses, through the bones of the foot and leg, either transversely or obliquely, in nearly a dozen different places. She had consulted many medical men, all of whom unhesitatingly condemned the limb to amputation. I had already a little experience in the results of exsections of bones, and as she resolutely refused to listen to any proposal for an operation that did not promise to save the limb, I undertook to gratify her, and at the same time to do my duty, but with many misgivings as to saving the limb, I must confess. She was placed upon her back and ether administered. I began the operation by making an incision, commencing at the upper part of the middle third of the leg, on the inner side, and at a line corresponding to the centre of the tibia. This incision was carried downwards over the centre of the internal malleolus, and terminated at the base of the great toe. A corresponding incision was made on the other side of the leg. These incisions were carried down to the bone, and looked frightfully large after being made. With an elevator I now pressed or forced the soft parts from the bones, and exposed them fully without dividing a blood-vessel of sufficient magnitude to require a ligature. The bones of the ankle were so much decayed that I could now turn the foot freely in any direction. Taking advantage of this circumstance, an assistant was directed to turn the foot to the left side until the ends of the tibia and fibula were exposed, by which I readily removed such portions as were diseased, with the amputating saw. The astragalus, or that diseased portion of it still remaining, was next removed. The anterior two-thirds of the os calcis was removed by the chain saw. All the tarsal and the basilar half of the metatarsal bones were then removed with the aid of the scalpel, bone forceps, and elevator.

The assistants in this case were the mother of the patient and two or three of the neighboring farmers, who fortunately possessed sufficient courage to assist me. The patient was extremely poor, and had bad nursing after the operation, but, notwithstanding this, recovered almost perfectly, and when I heard from her last, she could endure as much with that leg and foot as ever, but the motion of the joint was less perfect.

That re-production of bone has taken place, I have no doubt.

Case 2d: A. B., admitted into my infirmary, in this city, in February, 1857, with disease of the wrist, implicating the lower ends of the radius and ulna, as well as all the carpal and metacarpal bones. I made incisions about six inches long, on both the dorsal and palmar side of the forearm, near its centre—being careful not to carry the inside incision as far as the palmar arch—exposed the bones, removed the ends of the radius and ulna, all the carpal and the major part of all the metacarpal bones. This was done without sacrificing any blood-vessel requiring a ligature.

The wound was kept open for some weeks, until I became satisfied that the remaining bones were not disposed to exfoliation, when it was permitted

to heal. The patient is now, Nov. 10th, 1857, at work and comparatively well, though the radio-carpal joint wants that freedom of motion which attended the patient after the first operation detailed, but which, I think, is attributable chiefly to the fact that the latter patient had no courage to move the hand forcibly, nor permit it to be done during the progress of cure—and without which I consider it impossible to have ease of motion, the ultimatum of operations for exsection of joints.

This operation was performed in the presence, and with the assistance, of Drs. B. A. SHELDON, I. ROWELL, L. GROVER, REILEY, MCCAULEY, and others, who saw the patient frequently after.

I have two other cases at this time, similar to those detailed, and which are successfully going on to a favorable termination; and I take this opportunity of inviting members of the Association to call and satisfy themselves in regard to the propriety of the plan of extensive exsection I practice.

If the system be correct, it should be established, and almost universally adopted by surgeons, instead of sacrificing limbs, as was customary until within a few years past, and is still pursued by nearly all practitioners of this coast.

The following rules I follow in all cases of exsection of bones:

1st. Make the longitudinal incisions very free, and as remote from the track of the blood-vessels as possible.

2d. Never make a transverse incision if it is possible to remove the diseased bones without.

3d. Keep the wound open until the ends of bones operated on become covered with healthy granulations.

4th. When the articular extremities forming an entire joint have been exsected, institute a forced motion, to a greater or less extent, as soon as suppuration is fairly established.

In addition to facilitating the removal of all portions of bone disposed to slough, early motion has the finest influence in hardening the new deposit which is to be appropriated to the formation of the articular surfaces of the future joint.

The practicability of exsecting the entire articular extremities of bones forming important joints, has been long recognized by surgeons who noticed that strength and motion were frequently restored afterward. Thus DUPUYTREN exsected the os astragalus as early as 1818; and MUTTER, of Philadelphia, removed the sternal extremity of the clavicle and a portion of the summit of the sternum for caries, and in eight weeks the motion of the upper extremity was fully restored; the space thus left in this important articulation being filled up by the re-production of fibro-cartilaginous substance (*vide* Cooper's Surgical Dictionary by Reese). In this case, the important practical fact of a restoration of motion equal to that possessed by the joint before its exsection, was recognized without assigning it to the

aid of a re-production of bone which, however, was the case without doubt, because, as shown before, the tendency of the various structures is to change into bone, while bone is never changed into any other elementary tissue: besides, what better evidence do we want of the parts being the same, than afforded by the motion of the joints being the same. All surgical writers agree that the lost articular cartilage tipping the ends of bones is replaced often by a layer of smooth, ivory-like bone, instead of the cartilage, which was never known to be re-produced in such a case, unless it be in cases of young children. All agree that a loss of a portion of the cartilaginous plate that connects the false ribs to the sternum, is supplied by bone. Is it strange, then, that bone should be re-produced in healthy persons whenever and wherever lost? It does not require the periosteum to be saved, in order to secure re-production of bone. Those practitioners who make transverse incisions, and cut off tendons, under the specious plea of saving the periosteum, show an uncommon degree of ignorance.

December 17th.—Since writing the above, one of the patients mentioned as having been recently operated on, has sufficiently recovered to walk twenty or thirty steps without either crutch or cane, and is constantly improving. He wears a boot, and can move the joint considerably. The space made by the exsection of bones in his case, was kept open and is not entirely healed yet. The process of re-production of bone could be distinctly watched for three or four weeks. The joint will not be the same as the original. The lower ends of the tibia and fibula will be but one bone, and the articular concavity of the tibio-tarsal joint will be in the new bone corresponding to the os astralgus below, while the convexity will be in the tibia and fibula above: just reversing the usual order of things. I directed the attention of several medical gentlemen to this interesting fact, during the period in which it could be distinctly noticed. Among them, if I mistake not, were Drs. Grover, Wooster, and McCauley.

[*Pacific Medical and Surgical Journal.*

On Some of the Useful Applications of the Permanganate of Potassa.

By G. F. Girdwood, M.D.

I had lately a distressing case of *cancer of the os uteri* under treatment: the pain was often agonizing, and the discharge so offensive as to add bitterly to the sufferings of my patient, who possessed a keen sensibility. It was a case in which I felt the want of some deodorant and escharotic combined, and was induced to try the permanganate of potash. I em-

ployed it as a lotion (20 grains to the pint) injected frequently during the day, and was much pleased with the comfort given to the patient by it.

I was next induced to try it in the case of a naval officer of high rank, afflicted with *cancer of the breast.* Here also the application has been most serviceable. Its application as a powder, sprinkled on the sloughy mass, or as a lotion (10 grains to the ounce) to the surface of the wound, has not been attended with pain. From a gaping sore, in most offensive condition, it has occasioned the wound to assume, in some parts, a disposition to granulate. The odor of the apartment, previous to the employment of the permanganate, was so offensive as seriously to compromise the comfort of the family. This inconvenience is entirely removed.

I was consulted in the spring, respecting a most *unhealthy eroding ulcer on the thigh.* It was one of those foul ulcers met with in constitutitions broken down by syphilis or intemperance, and where the dyscrasis is so great as to baffle the ingenuity of the profession to restore the healthy action in the system. The permanganate was here applied as a lotion, and was most efficacious in removing the slough, cleansing the sore and inducing healthy action.

An elderly female, long afflicted with *caries of the tibia*, which, from the offensive odor, prevented her performing the duties of her position in life with any comfort to those around her, has enjoyed perfect freedom from this annoyance ever since she has had recourse to the permanganate as an application to the leg.

[Dr. Girdwood then details cases of *scrofulo-syphilitic* and *constitutional indolent ulcers* in which he used this drug with success, and adds:]

The foregoing statement indicates the variety of cases in which the permanganate of potash may be applied. I have used the remedy generally as a lotion; but although I have not found it necessary, for the purposes I have generally required, to use it in a stronger form, I would recommend, when it is wished to destroy masses of cancerous growth, its use in the solid form, either as a powder, as I have done, or in a mass, as the sulphate of copper or other caustics. The lotion supersedes all the charcoal, yeast, and carrot poultices: let this simple solution — make it as weak as may be thought requisite to effect the object — two to twenty grains, or more, if liked — be used on a piece of lint, instead of any of these applications. The permanganate of potash is more useful than any of the other compounds of manganese and potash as a caustic or deodorant. The permanganic acid contains more oxygen than the manganic. The permanganic acid has the composition Mn^2O^7, whilst the manganic acid has a composition MnO^3.

As the escharotic action of these bodies, as well as their deodorant quality (a quality which has been long known to chemists), depends on the ease with which they part with the oxygen with which they abound, clearly that preparation which yields the larger quantity of oxygen must be preferable: this is the permanganic acid as permanganate of potash.

As a *deodorant*, as an *escharotic*, as a *stimulant*, it is a most useful application, combining, as it does, all these three qualities; but as a quality still to be claimed in its favor, is the ease of its exhibition as a lotion applied to, or in powder sprinkled on, the sore, or as an injection. To conclude, I may say, that whilst from the foregoing relation its advantages have been attempted to be illustrated, its use is also suggested in every sort of case where it is desirable to combine all the qualities this agent beneficially possesses; in such cases, for instance, as old chronic ulcers, warty growths, syphilitic sores, as a caustic in the primary stage, or in gonorrhœa as a stimulant injection.

I have found it a most desirable deodorant. A teaspoonful of the substance powdered, added to a teaspoonful or two of water, just enough to moisten it well, and sufficient to cover the surface of a flat dish — a dinner plate, for example, being used for the purpose — giving a broad surface for absorption, and this plate placed under the bed, or anywhere most convenient in the sick chamber, all odor disappears; and it has an advantage above those in general use in the sick-chamber, that it has no odor of its own. Vinegar and chlorine and nitrous acid gas, are often of themselves a nuisance; whilst destroying one odor they create another; but the permanganic acid has none. It only destroys; it does not create. I have employed the solution successfully in my stables, and in other places engendering odors. It does not require frequent change. Has it lost its original beautiful purple color? Has it become black and slimy? If so, renew it, but not till then.

The permanganate of potash was introduced some time ago as a remedy in diabetes, so that it is well known to chemists.

[*Am. Jour. of Pharmacy March*, 1858, *from London Chemist, Jan.*, 1858.

Miscellany and Brevities.

Minutes of a Meeting of the North-Eastern District Medical and Scientific Association, held at the Exchange, Utica, Jan. 27th, 1858.

The meeting was called to order by the President, Dr. C. M. Stockwell. Minutes of last meeting read and approved.

On motion, a committee, consisting of Drs. Taylor, Smith, and Willson, was appointed to report the names of new members, who reported the names of Drs. J. E. Willson, of Rochester, and W. W. Andrus, of Utica, who were elected members of the Association.

On motion of Dr. Knight, 4 o'clock P. M. was made the hour for the President's Address.

On motion of Dr. Taylor, Dr. L. T. Jenny was elected an honorary member of the Association.

On motion of Dr. Knight, the Association proceeded to the election of officers for the ensuing year, which resulted as follows:

President—Dr. Paddock, of Pontiac.
Vice-President—Dr. Smith, of Troy.
Secretary—Dr. Knight, of Utica.
Treasurer—Dr. Willson, of Pontiac.

Very interesting Reports were made by Drs. G. B. Willson, Stockwell, Smith, Knight, Taylor, and others.

Dr. Smith, of the Committee to Report upon Epidemics, asked for an extension of time. Granted.

Dr. Smith in the Chair; the following resolution was adopted:

Resolved, That the thanks of the Association be extended to Dr. Stockwell, and the retiring officers, for the prompt and faithful manner in which they have severally discharged the duties of their offices.

Dr. Andrews, of Romeo, submitted an interesting Report upon Meteorology, which was adopted.

Dr. Andrews, chairman of a Committee to Report a Plan for making Meteorological Observations, submitted a Report on that subject. The Committee was continued.

Dr. Stockwell offered the following resolution, which was adopted:

Resolved, That the Reports prepared, and not received, be submitted, through the Secretary, to the Committee on Publication, if received in time; if not, to be submitted at the next Semi-Annual Meeting.

The hour having arrived, the retiring President (Dr. Stockwell) was called upon to deliver his Address, which was listened to with much interest. It embraced a history of the Association, commencing with the first county organizations in the north-east; their growth and ultimate consolidation into that of the North-Eastern District, and while it recounted the beneficial results obtained by this organization, it also plainly pointed out the evils existing, proposed a remedy, and counseled a reformation.

The following resolution was offered by Dr. Andrews, and adopted:

Resolved, That a committee of three be appointed to report at the next meeting in relation to the publishing of the Proceedings of this Association in pamphlet form, and to make any other suggestions of means for rendering our organization more useful.

Drs. Andrews, Stockwell, and Taylor, were appointed said Committee.

The Association then proceeded to elect delegates to attend the National Medical Association at Washington. The following persons were elected:

Drs. H. M. Snell, James N. Cole, A. R. Stone, M. C. Kinny, J. P. Willson, G. L. Cornell, W. C. Smith, and G. B. Willson.

On motion, the following Committees were appointed to report at the next meeting of the Association:

Action of Remedies—Dr. L. A. Hubbard and Dr. W. W. Andrus.
Surgery—Dr. Travers and Dr. G. B. Willson.
Obstetrics—Dr. Lauderdale and Dr. W. H. Haze.
Epidemics—Dr. A. R. Stone and Dr. Strobridge.
Meteorology—Dr. S. L. Andrews.

On motion of Dr. Stockwell, it was made the duty of the Vice-President to deliver an Address at the Semi-Annual Meeting.

The case of Dr. Buffum was taken from the table; and, after due consideration, he was expelled from the Society.

On motion of Dr. G. B. Willson, it was

Resolved, That when this meeting adjourn, that it adjourn to meet at St. Clair, on the second Wednesday of June next.

On motion of Dr. Stockwell, a committee of three was appointed to report a plan for a certificate of membership. Committee—Drs. Stockwell, Willson, and Travers.

On motion, Dr. Knight was appointed to report upon Typhoid and Remittent Fevers in the North-Eastern District.

Dr. Knight offered the following resolution, which was adopted:

Resolved, That the thanks of this Association be extended to Dr. Stockwell for the able and highly interesting Address delivered at the

terminus of his official year as President of this Association, and a copy be requested for publication.

At 7 o'clock P. M., the Association retired to listen to an Address by Dr. G. B. Willson, before the Society and citizens of Utica.

BUSINESS RESUMED.

Dr. Taylor offered the following resolutions, which were adopted:

Resolved, That the warmest thanks of this Society be tendered to the citizens of Utica for the very courteous respect given us on this occasion.

Resolved, That the thanks of the Association be tendered to Dr. Willson for his able Address delivered on this occasion, and a copy be requested for publication.

Resolved, That the thanks of this Society be given to our host, B. C. Gunn, of the Exchange, for the sumptuous entertainment furnished us at this meeting.

The Society then adjourned to meet at St. Clair, on the second Wednesday of June.

Dr. W. C. SMITH, *President.*

Dr. P. A. KNIGHT, *Secretary.*

University Medical College.

Medical Commencement occurred on Thursday, March 25th, on which occasion twenty-seven gentlemen received the degree of Doctor of Medicine. They were addressed by Dr. J. H. BEECH of Coldwater. The following are the names of the successful candidates:

A. L. Anderson, A. B.	Tenn.	Thomas Lothrop, jr.	Mass.
W. P. Baird	Pa.	J. M. Lord	Ohio.
William Bovie	N. Y.	W. M. Lyon	Pa.
Ira Brown	Ill.	W. J. McHench	Mich.
S. F. Chapin	N. Y.	M. L. Meads	Md.
J. J. Comfort, A. B.	Mich.	J. H. Miller	N. Y.
W. G. Cox	Mich.	S. S. Smith	Wis.
H. M. Darling	Pa.	David Spaulding	Mich.
W. A. Davis	Mich.	Daniel Thomas	Mich.
W. C. Fisher	Mich.	Wm. E. Thompson	Ind.
Charles Hancock	Ill.	E. B. Ward	Mich.
A. M. Helmer	N. Y.	E. M. Winslow	Ill.
Cyrus Hosack	Ohio.	E. H. Wood, A. B.	Ill.
M. L. Leech	Mich.	—27	

PHARMACEUTICAL.

NOTE.—It is the design of this Department to record, each month, abstracts, with editorial comments, of such recent improvements, new processes and formulæ, and other matters relating to Pharmacy, as may be thought of interest and importance to the Physician and the Pharmaceutist.

Compound Syrup of Phosphates, or Chemical Food.

A syrupy solution of the Phosphates of Iron, Lime, Soda, and Potassa, with the foregoing title, has been employed for several years back in the city of Philadelphia. The modes of preparing it have varied with various Pharmaceutists. The concern claiming to have the approval of Professor JACKSON (who first it introduced into use) for their preparation, decline to make their mode public. In all of them, however, phosphoric, lactic, and muriatic acids are employed as the solvents. We received, in June last, from Mr. PARRISH, of Philadelphia, his formula for it, which he has since published in the *American Journal of Pharmacy* (November No., 1857). Though differing somewhat from that sent us, we give it place, as follows:

Take of	Protosulphate of Iron	ʒ x.
	Phosphate of Soda	ʒ xij.
	Phosphate of Lime	ʒ xij.
	Phosphoric Acid, glacial	ʒ xx.
	Carbonate of Soda	℈ ij.
	Carbonate of Potassa	ʒ j.
	Muriatic Acid, Water of Ammonia }	of each sufficient.
	Powdered Cochineal	ʒ ij.
	Water, sufficient to make	ß ℥ xx.
	Sugar	℔. ij. Troy.
	Oil of Orange	m. x.

Dissolve the sulphate of iron in two fluid ounces of boiling water, and the phosphate of soda in four fluid ounces of boiling water. Mix the solutions, and wash the precipitated phosphate of iron till the washings are tasteless.

Dissolve the phosphate of lime in four fluid ounces of boiling water, with sufficient muriatic acid to make a clear solution, precipitate it with water of ammonia, and wash the precipitate.

To the freshly precipitated phosphates as thus prepared, add the phosphoric acid previously dissolved in the water. When clear, add the carbonates of soda and potassa, and afterwards sufficient muriatic acid to dissolve the precipitate.

Now add the cochineal mixed with the sugar, apply heat, and when the syrup is formed, strain and flavor it.

Each teaspoonful contains about 1 grain of phosphate of iron and 2 1-2 grains of phosphate of lime, with smaller proportions of the alkaline phosphates, all in perfect solution.

Mr. Richardson, in a formula for this Chemical Food, published since the above, proposes the employment of pyrophosphate instead of protosulphate of iron, and of citric instead of phosphoric acid, as it lessens the cost of its production.

This compound syrup is permanent, and agreeable to the eye and taste; is but slightly acid and ferruginous; the naturally insoluble phosphates being in a state of solution, are more readily absorbed. It is employed as a nutritive tonic in place of less agreeable and efficient tonics and chalybeates, in those cases of chronic debility, or conditions in which there exists a waste of the elementary matter of the system.

Amylene.

This hydro-carbon, which was introduced into use as an anæsthetic, by Dr. Snow, in 1856, has been condemned recently by the Académie de Medicine, of Paris. The following is an extract from the memoir of M. Jobert to the Académie:

That it is less active than chloroform, is only true when administered in the open air, and is explained by the rapidity of its evaporation.

If an apparatus be employed, Amylene becomes a most energetic anæsthetic, the desired result occurring in two, and often in one minute. The effects of this agent are to increase the number of the pulse by thirty or forty, the modification of the blood, and the perturbation of the nervous system, producing insensibility, coma, and the abolition of the intellectual power. It is thus a toxical agent, acting simultaneously upon the vascular and nervous systems. . . . . .

Chloroform does not, like Amylene, deprive the blood of its red color; and while chloroform depresses and renders the pulse slower, Amylene quickens it, producing congestion of the organs. Amylene is difficult of administration, while chloroform is easily given.

Chloroform furnished him the same satisfactory results at all ages, and he believes that it is not more injurious in infancy than at a later period. He concludes "that Amylene exerts an energetic and dangerous influence."

Previous to the presentation of the above-quoted memoir, M. Duroy, in a communication to the same society, showed conclusively that the employment of Amylene was not as yet practicable in an *economical* point of view, from the great cost of its manufacture, and that the products employed by Dr. Snow, M. Menier, and M. Hepp, under the name of Amylene, were mixtures of several carburets, as they contained paramylene, metamylene, and amylic alcohol, together with pure Amylene (C_{10} H_{10}).

He considers that if these mixtures possess useful anæsthetic properties, that the precise character of the mixture to be employed should be determined. This can be done by its highest boiling point, and by never using a product leaving a residuum on distillation beyond this *maximum* of heat.

M. Duroy states in detail in his memoir the difficulties to be overcome in preparing Amylene, in purifying it from amylic alcohol and the isomeric carburets, which so persistently cling to it; and says that, after repeated rectifications of Amylene, in apparatus constructed for the purpose, he obtained only a fluid ounce of the pure Amylene of M. Balard from one gallon of amylic alcohol—rather discouraging on the score of economy, but offering strong inducements to chemists and pharmaceutists to devise means for obtaining this agent in as pure a form and at as low a price as possible, in order that its practical value as an anæsthetic agent may be more clearly determined.

New Furniture-Labels for Druggists and Physicians.

The Latin-Label Committee of the Philadelphia College of Pharmacy have recently issued a new series of Labels for shop and office furniture. The series is executed in three different styles.

The first set, some 1600 in number, is printed from engraved blocks, the body of the Label being bronze, and the border and letters of a deep steel-blue color. These, for brilliancy and elegance, compare favorably with the best of those produced by the usual mode of lettering upon gold leaf, and upon the score of economy are much more desirable. We believe they may be relied upon for accuracy, and would commend them to those Pharmaceutists who design re-labeling their furniture, or fitting up new establishments.

A second set is printed of similar form, upon yellow paper, in black ink, being much cheaper.

They also issue a Book of Labels for physician's use, suitable for office furniture, saddle-bags, medicine-cases, etc.

Iodide of Cadmium.

Dr. A. B. Garrod, in the *London Pharmaceutical Journal* for November, 1857, proposes to substitute the employment of this, in place of other iodides, for external application of iodine in the form of ointment. He states the objection to the *Comp. Iodine Ointment* of the London Pharmacopœia to be the free iodine, which is often too irritating, besides it possesses a disagreeable odor and stains the skin; also that the simple *Iodide of Potassium Ointment* is generally too gritty from careless preparation, so as to render its application to tender skins impracticable, and that this salt, when mixed with fat, is not readily absorbed by the skin. He objects

to the employment of *Iodide of Lead Ointment* because it stains the skin yellow, and is apt to induce, from long continued use, the injurious effects of lead when absorbed into the system. He says:

I believe, however, that *Iodide of Cadmium* possesses all the valuable qualities of iodine, iodide of potassium, or iodide of lead, when applied externally, and at the same time it is free from the various noxious properties of these preparations. The salt occurs in the form of mother-of-pearl-looking plates or six-sided tables, quite white and transparent, unaltered in the air, very readily soluble, both in water and alcohol. . . . . It forms a perfectly white and soft ointment, producing but little local action upon the skin, and appearing to be readily absorbed when properly applied with friction.

Under the use of an ointment of this salt, consisting of one part of the iodide to eight parts of lard, I have witnessed in many cases enlarged scrofulous glands, rapidly reduced to their normal dimensions, great relief likewise given in various forms of nodes, and have also, in several instances, seen much advantage from its application to joints affected with chronic forms of inflammatory disease. It is extremely applicable in some forms of cutaneous disease, chilblains, etc. There is besides every reason to suppose that the absorption of cadmium into the system would not be attended with any injurious consequences, as it appears to be closely allied to zinc in its action upon the animal economy.

As Iodide of Cadmium is now much employed in the Photographic Art, it is easily obtained of most Pharmaceutists. For the benefit of those who may wish to prepare the salt, we give here the process for making it:

Digest in a pint Florence flask eight and one half drachms of iodine, four drachms of metallic cadmium in filings, and eight fluid ounces of water; agitate frequently. Should the intensity of re-action cause vapors of iodine to rise, modify it by placing the flask in cold water. When the action has ceased, and the liquid has become clear (it may require heat towards the end of the process), filter and evaporate it upon a water bath until a pelicle appears upon the surface; then set it aside for crystalization. Drain these, and dry by means of a gentle heat. The crystals are in the form of beautifully white, mother-of-pearl plates, unaltered in the air, and dissolving readily in water and alcohol. They consist of one equivalent each of cadmium and iodine, and consequently have the atomic weight of 182.

We have known iodide of ammonium to be recommended in place of the ordinary iodides, for external application, for the same reasons as those offered by Dr. Garrod in favor of the cadmium salt.

Glycerine.

Messrs. Hennell Stevens & Co., Manufacturing Chemists, of Philadelphia, have sent us a specimen of their Distilled Glycerine, which they are are now making in large quantities. This, in color, density, and freedom from odor, approaches nearest to perfection of any we have ever met.

We believe their process and apparatus is patented; it consisting essentially in acting upon the refuse of Candle Works, soap-waste, and any thing containing Glycerine, by super-heated steam, in a distillatory apparatus adapted to the purpose. Fats having Glycerine for a base, are decomposed in contact with steam at high temperature, the volatile fatty acids passing over first; the Glycerine afterwards. This is obtained in a pure state by changing the receiver.

PRICE's Glycerine, hitherto considered the best in our market, we notice in the February No. of the *London Pharmaceutical Journal*, has an acid re-action; that of Messrs. HENNELL STEVENS & Co. has not. This we deem an evidence of its superiority over that of PRICE's manufacture.

It is to be hoped that the enterprise of these gentlemen in furnishing us with this important element of our Materia Medica, in its greatest state of perfection, will be rewarded by a deserved profitable return.

U. S. MARINE HOSPITAL,
DETROIT, March 5th, 1858.

Messrs. EDITORS:

With this I hand you a copy of our Meteorological Register for February. It is not as complete as we hope to report through the summer, as we have not the full complement of instruments, nor are all we have in use. We expect hereafter to be able to give a full Report each month.

Respectfully Yours,

L. S. HORTON,
H. P. to U. S. M. H.

[From the above, our readers will notice that, having made arrangements with the "Clerk of the Weather" for this district, they may expect each month a full Report upon the various changes in that subtle element. —EDS.]

To the Subscribers of the Medical Independent.

With the present No. of THE PENINSULAR AND INDEPENDENT, we transmit bills to such of the subscribers of the *Independent* as are yet in arrears, with the request that they will remit their dues to the publishers of this Journal, Messrs. HIGBY & STEARNS, who are authorized to receive the same, and give receipts therefor. MOSES GUNN.

THE

PENINSULAR AND INDEPENDENT

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Original Communications.

ART. VIII.—An Address to the Graduating Class of the Medical Department of the University of Michigan.*

BY J. H. BEECH, M. D.

HAIL, DOCTORS OF MEDICINE! Welcome to the right hand of fellowship—to all the rights and emoluments pertaining to your degree—to the wages of your years of toil over dry bones, putridity, drugs, chemicals, and tedious pages.

Presuming that, by virtue of the long feast you have enjoyed, a temporary satiety cumbers your relish for scientific disquisitions, deep-meaning facts, abstruse doctrines, and medical logic; that you have had a surfeit of hard nuts to crack during the last few days; that you have drank sufficiently deep in physiological and pathological enigmas for the present,—I shall, during a few moments allotted to me by the kind consideration of the Medical Faculty of the University, endeavor to prepare your minds for new scenes in the drama

*Published by request of the Class.

of life by some common-place remarks, for which we take no patent of originality, as the only novelty may be, their applicability to yourselves, in the relations which you are about to assume.

The ceremonies and circumstances of which you are now the centre, have long ago been instituted by the stern necessities of our fragile race. On the turrets of our temple, Integrity and Virtue have stood as sentries, and should continue their vigils in all times and in all climes. Many who have passed its threshold have been ministering angels to the suffering and life to the dying, while a grim legion who have climbed up by other ways are ever distinguishable from the genuine physician. These honors were anciently guarded by strong oaths and pledges, and conferred with mystic rites, grand and imposing; but the present is a working age, and deals less in vain exhibitions. American genius, in science, requires progress and not pomp. You, this day, receive sufficient attention to impress your minds with the fact, that, as an event of your lives, you may expect none to exceed it. Intelligence, age, youth, and beauty have assembled, to bear witness that twenty-seven alumni of Michigan's most cherished Institution have received that "laying on of hands" which belongs only to the pure in heart, persevering in effort, and bountiful in kindness. In presenting yourselves here, you have pledged your honor, in a manner as solemn and binding as an oath, that you will observe all the dignity of enlightened manliness, in all the spheres of your future lives, and that the honor of our Profession shall be inseparable from your fondest interests.

Whilst we congratulate you upon the happy termination of the days of pupilage, we also sympathize in your longings to reach home and tried friends, where your hearts shall glow with increased fervor, as you witness the proud and worthy gratification which your several households enjoy in the honors you bring them. Parental fondness and fraternal

confidence are enhanced by this success, and loving circles are in anxious expectance of mutual glee. The drapery of midnight has been agitated by the brain-wrought images of yourselves. Family altars and holy retreats still reverberate with petitions for the absent. The convivial board will soon be spread, in honor of your return; and perhaps some tender hearts outside of the *old* family circle are beating nervously over the result of this day's doings.

How different the studies of your Profession appear to you from what the visions of youth had painted them! In your anticipations were ideas of limit, which you were to measure—the dimensions of accident and disease were to be positively ascertained—the weight and measure of cure, already in possession of your preceptors, were to be committed to memory—the hyperbole of medical progress was to be reduced to comprehensible data, ere your majority—and your diplomas were to be an infallible key to wealth and honor. The Junior Year of your medical curriculum found you tolerably well satisfied with the advancement you had made, and you already began to fix your eyes on the distant boundaries of the Universe, as your imagination had plotted it. Ere to-day, you have discovered that the horizon recedes with the altitude you attain and with your augmented powers of vision; that the Ocean of Science is only outmeasured by that of Eternity; that its soundings are in no danger of being recorded until you have had full opportunity to exercise your skill with the lead and line of research. Yet all this should not mar, but rather enhance the pleasure of the present time. What appeared to you as the "*ultima thule*" of knowledge was only a fog-bank of ignorance, whose deceptive refractions you have already passed, to find before you unlimited beauty, wonder, and sublimity, where the high behests of philanthropy consist not in mere routine of empirical arts and rehearsals, paid only in kicks or countable coppers, but where each demand for your skill may furnish a lesson of scientific

interest worth the exercise of the most noble capacities of man, and give you a hold, by the Anchor of Gratitude, in the deepest recesses of the human heart. Your studentship has thus far been alloyed by the exactions of form and conventional order. Your probation is now accomplished and you are received in full communion to the seniority of perpetual students — the Universe your University, all Nature your Text-Book, and the Eye of OMNISCIENCE your Censor.

Graduation in this Institution, where opportunities have been had, by repeated trials and exercises, of thorough acquaintance with your progress, where the course of instruction has been modeled after the recommendations of the highest authorities in our Profession, and where the full rigor of final examination is untrammelled by interest or favor, is evidence of conscious fitness which fears no scrutiny. You enjoy to-day the commendation of your teachers; which may well quicken the spirit of every scholar, and be remembered with stirring emotions as long as you continue worthy of their painstaking. You have received in proof of this, from the highest educational authority in our State, the world-renowned and time-honored degree of *Doctor of Medicine*, and as mementos have received a durable document, setting forth these facts.

Having, in obedience to the counsels of your instructors, possessed yourselves of the outlines of the regions you are to explore and the duties you are to perform, you are now endowed with rights and privileges of independent effort and observation. The spirit of the present age has rendered necessary that your acquirements should place you, at the outset, in advance of many who have added years of practical labor to the exactions of former times. You have had opportunities of familiarizing your senses with the operations of chemical agents. Retorts, crucibles, and test-tubes, "agents," "reagents," and affinities, are not to you like cosomoramic exhibitions, or the animals of a menagerie, treated with a glance,

dreamed of in confusion, and irretrievably lost in the morning. You have not only mental diagrams of the superficies in other sciences—charts of the hidden strata, and sketches of the currents below—but the voice of the laborers in this Heaven-wrought economy has penetrated your ears, and their language you have been taught to interpret. In the aggregate you comprehend far more than we of former days were taught; and, in segregation, the microscope has shown our atoms to be Andes.

The riddle of nerve-power has received further solution, in a manner so legitimate to the light of previous knowledge that the offspring seems almost the parent-self; and several honest accoucheurs claim the honorarium. We are happy to believe that this Institution was among the earliest to diffuse correct teachings in this department of physiology.

Assimilation and secretion have revealed almost all their mysteries to untiring investigators. Methods of exploration and investigation, as well as further aids in diagnosis and treatment, have been evolved, enlarged, and corrected, with magic rapidity. The dark recesses of Etiology are illuminated by the multiform manipulations of Chemistry and Philosophy; and the remedial agents placed in your hands are far superior to the armamentaria of "days of yore."

You may now hush your agonized patient in "Lethean dreams," to while away the moments in happy visions of health, witting nothing of the gory track of the bistoury—the wrench and tug of mechanical power, applied to shivered limbs—or the throes of nature's severest trial. Abnormal accumulations have found their solvents which work harmless amid the delicate machinery of the living organism, and wasting floods are more certainly restored to natural channels. All these increase the surety of treatment, by scientific Medicine and Surgery.

In Hygienic Science, correct observation is establishing the *laws* which govern atmospheric vicissitudes, and their

influence on physiological and pathological conditions, in place of vague hypothesis and mythical tales ; you know where the ambrosial gales, the trade winds, and the simoon wend their way, and where the Upas vapors contaminate and destroy ; and are declared able and true men to enter the service of our Profession, qualified to develope, by exercise of your discrimination and judgment, unseen mysteries—qualified to practice the important duties of physicians in highways and by-ways—qualified to act your parts as men elevated to positions of responsibility, which may be your glory or your gallows. The honors which you have this day received are like a two-edged sword, and will wound yourselves if you use them against the rights and interests of your fellow-man.

Having, by strict examination, been found to possess abilities which fit you for the highest class of public benefactors, will you continue to cultivate those abilities by studious observation, or allow them to tarnish, while you pass slothfully through the round of external duties, day by day, and month after month? Shall an annual decade find your medical knowledge as this day leaves it,—changed only by the disintegration of forgetfulness? Shall the proper signification of the initials of your degree be transformed, ere a score of years, to *Marcidum Doctor?*

These may be impudent questions; but our privilege shields us, and our duties to you and the communities which are to receive you demand that we deal in meaning, if not in polished, sentences. You are about to sever the sacred links which have so long bound you to these halls, to these friendly and thoughtful instructors, to your fellow-travelers whose probation is yet unfinished, to this Rural City, to its hospitable citizens, and to each other; and in obeying the mandates of your individual tasks, conditions, or judgments may soon find yourselves at antipodes, or still farther separated by the parting of life's brittle thread. Having enlisted in the service of humanity, and prepared yourselves according to the best of

your abilities for the most solemn trusts, it becomes your duty to devote your lives to your calling, through prosperity and adversity. No evil forebodings or timid reserve should fright you, nor should golden tales nor pleasure's chimera lure you from paths of duty, though veiled at times in gloom. You are, in all probability, as well adapted by nature for these responsibilities as hundreds who have dispensed blessings broad-cast among the sons and daughters of Adam, and your fidelity will be the measure of your future acquired talents. The same efforts which would crown you with success in other departments of life, will not be lost in this. Idleness or vacillation multiply and magnify difficulties, but perseverance dispels them. Hoary heads and shrimping limbs are yet gathering laurels which will bloom in memory's vase, when the immortal man shall leave the worn-out tenement for the Haven of Virtue. Familiarity with Medical Biography will stimulate your fainting spirits, and put to shame your thoughts of desertion. If educated men abandon the field, the world must of necessity trust to pretenders and quacks. Entering then, as we trust you do, upon a life-service in the capacity of physicians, it is proper at this time that you should take a perspective view of your obligations and interests, in your new relations, over which you may have already cast your thoughts in trains of more perfect regularity than I shall endeavor to lead you; but the principles we shall inculcate to aid you in your transition are such as have hitherto proven valuable.

Your degree of citizenship is different from that you left a few months ago with the same moral and social surroundings. While you have been immured among the tomes and cabinets of science, thinking only of these, and the necessary demands of nature, the associates of your youthful years have been intent upon the chances of trade and productive arts. They have been learning how to get rich, and are dull scholars if they are not already well skilled in the theory and practice of

gain. Yours has been a nobler object, and nobler ends are attained. You are now to enter the field with them, with higher cultivated perceptions, and may hope to soon cope with the foremost in the arena of their glory, while you also raise more enduring monuments of your existence. It will be no disgrace to you if you never learn some of the elementary rules of their success, further than self-preservation demands.

You will find inducements to return to the same relative positions in the circles which you left, but, if your *tastes* have not changed, your welfare and influence render more circumspect deportment necessary.

You hardly have a right to give your uppermost thought to money, ease, or fashion, after the expectations of others have opened a way for higher aspirations. Speculation and jockeyism are rocks on which many a professional banner has bleached in forgetfulness. Risk your craft near neither, but trim your sails by the demands of enlarged philanthropy, till you are familiar with the counter-currents—extending your operations as you acquire prudence and self-control.

To be rich must be very convenient, but great dangers attend hasty efforts for wealth. It is better to give the riches of health, than to receive the best treasures any other class can bestow upon you.

You must have occasional relaxation from care and labor, or vigorous thought, and cheerful, efficient action will merge in listless drudgery and automatic monotony; but the wail of the afflicted should arouse your senses sooner than the notes of mirth.

Amusements and company are necessary, but must not be allowed to usurp an over-measure of time.

We must eat, sleep, and converse; but to snore, gormandize, and gabble should not be the business of life.

The *wine cup* is a hackneyed theme, but it is the great "maelstrom" of our Profession. It is suicidal to drive your

flagging energies with its scorpion lash, when merited repose would soon restore healthful vigor. The Bacchanalian ring has long been considered incomplete, unless Dr. Somebody was there; and it would be well for us to lose such unenviable notoriety. Pleasure and our professional honor are steeds of different gaits; and he who endeavors to ride both, is likely to sit in the mire between the two.

Having stepped on sanctified ground, if you have not yet put off the sandals of youthful frivolity, it is time to loosen their clasps. Your every step will be watched, by friends and foes, with interest, acute, but various. As your inmost desires are directed, so will you render our ranks stronger, or impair their strength. A jealous world will eye you at every turn; but while in Virtue's path, you need have no fear of their gaze or envy. To turn aside in pursuit of goblin tales of what you have committed or neglected, would display a weakness which opens the joints of your armor, and makes you an early victim, when an upright and steadfast deportment would send back such missiles with fatal recoil.

As you are not to fear the tongue of gossip, nor court its aid, so are you to strenuously avoid being its messenger. "The Doctor" is a very convenient gazette, if he has not a happy tact of forgetting. Giving your authority only makes a sad preface to a tale rendered interesting by the fortunes or foibles of others. Morality claims that you should not lend a willing ear, and never be coaxed or tortured into public rehearsals of other people's private affairs, even to define your own conduct, except where *justice* imperatively demands it.

Your opinions of religion or politics need not conform to the tenets of the times or people you dwell among—nor be hidden, lest they hinder your professional popularity. Of course you have no right to *wrong opinions*, nor to promulgate them; but if you have coolly and intelligently established your mind, it should not be easily jostled; still, our liability to err, so often taught in the history of the past,

renders modest firmness more appropriate than arrogant assurance. Candid and frank expression, or enthusiastic argument, will be tolerated in intelligent and commanding circles; but harping over hobbies, violent invectives, or captious meddling, never convince, never fail to irritate, and are beneath the dignity of your calling—a waste of time better used in "mending your nets," if no fish are running—and will surely contravene your interests.

It is supposed by some that a peculiar kind of shrewdness or mental legerdemain is necessary, to succeed in our Profession, aside from actual knowledge and judgment, but I am no believer in such "*ignes fatui.*" The world *hates* the *managing man*, and will ultimately discover the he has allowed the talents given him to gather canker, while he has been trying to get usury for bogus currency. The only true generalship is in conquering legitimate victories—surmounting the difficulties which disease, accident, or ignorance oppose to us, without especial regard to the clamor of triumph.

Inspire your efforts with ardent love of science, and its application to lengthen human life and lessen human woe, and you need not spend your time to look in the treacherous mirror of public opinion, nor framing public sentiment; for every friend cajoled or purchased to our favor, may be duped or bought away.

You are not only to practice manly virtues, but to inculcate their principles, on every reasonable opportunity; for your influence will never be felt as it should, without your voluntary exercise of it.

Far be it from me to advise you to shun the social circle and social relations of civilized and enlightened men. In them, rests the elements of your usefulness and the honors of our Profession. It is there that your step should be known by its evidence of discipline. Your footfall should hush the lying tongue, the lips of scandal, and the brawls of discord, as well as the sobs of anguish. The healthy and the gay

may sneer at your reserve and studious habits; but the time comes, in every one's life, when physicians have none too much knowledge and skill. Your careful cultivation will then rank among the real blessings of earth, while their practices will appear in a very different light.

They may cite you to those who seem to override all such necessities, and, by arrogant assumption, flourish upon the heedlessness or credulity of their employers. If you are to choose them as your models, you should first graduate from an old-fashioned penitentiary, where your consciences may be be rarified to psychological imponderability, or you will be annoyed by unpleasant qualms. It is very probable that the gullibility of the populace will only be changed, never annihilated; but pandering to such propensities is too mean business to do for any amount of pay. Yet, some physicians of "easy virtue" have been tempted to seek a short road to wealth, by catering to the popular predilection for hidden mysteries and extravagant pretensions; but few of the most perfect *humbugs* exist but a summer. Within the memory of some who hear me, many generations of ephemeral medical satelites have flashed and vanished. Vapors, in my boyhood, filled the atmosphere of pepper-plied, puking dupes; but scarcely a sick-room steam-box can now be found, and "lobelia" has retired to its little niche, to be seldom called out, except when common sense dictates. "Animal Magnetism" played its antics among grannies of both sexes and all ages; but its "passes" and villainies have had their day. Thermal and frigid floods have flowed and ebbed—carrying some treasures and much flood-wood to the ocean of forgetfulness. Concentrated *nothingness* waxed in phantom light, and has waned to stupid rhodomontade of its dishonest appropriations; but, "far-fetched and dear-bought" as it was, its shimmering gleam would hardly be sufficient to introduce the next medical mountebank upon the popular rostrum, if its "Eclectic sister" did not mount the pillion, and spur the goblin steed.

Regular Medicine has nothing to fear from such parasites —a disagreeable titillation is the limit of their power, and a crusade against them is bootless.

Nostrum mongers, emanating from drug shops and prescription offices, dealing in stale or stolen recipes of reputable men—spoiling their intrinsic value by universal application, and monstrous lies—have been more successful in acquiring wealth, than quacks who have endeavored to originate doctrines and remedies. Printing a thing makes it true; and people wonder that death will interfere, when, according to the bills, a cure is almost accomplished;—and still they wonder, and believe.

Frequent temptations will be presented to you (unless this world becomes suddenly reformed) to use your skill for purposes of doubtful morality or unlawful and unholy ends. As you value *real* above *pseudo* philanthropy, I beseech you, environ your hearts with principles which will not be shaken by golden bullets or the bombshells of individual influence. Arm your tongues with such adverbs of negation as will convince all, at first, of your integrity, and forthwith become the assailants, with arguments for virtue, humanity, and law.

The vocation you respond to, needs honest, conscientious men, and no others. You have found its portals guarded, for the purpose of sifting your motives and powers; and if you have succeeded in bringing past the paling, either the muffled jaws of the wolf, or the disguised form of a more stupid animal, time is sure to reveal the facts, but with the moan of injured innocence, and shame to yourselves, your friends, and your instructors.

As you value your fair fame, have respect to the fame of the fair. To amuse yourselves by taking unwarrantable liberties with the indiscreet, sneer at what you may deem prudery, or roughly approach the sensitive, are equally adverse to your success and respectability. Nor are you to be easily hindered by squeamishness, from thorough and careful investigation,

when you have undertaken responsibilities; candid, manly deportment will uniformly overcome false delicacy.

Invalids must be made to understand that you feel an interest in their misfortunes and sufferings, beyond the mere matter of fee; and that you are anxious to promote their comfort and safety by all honorable means

Children have horrid ideas of their medical benefactors, as a class, and should be impressed with different notions, before their physical condition can be ascertained. Their fears and their palates deserve respect and consideration, as much as older persons. To trifle with their feelings is unfair; but candor and kindness, as well in accidental interviews as when they require professional attention, will be repaid by respect and confidence, which will put you in possession of facts no others can obtain.

Humane intentions, which should ever put to silence the voice of personal convenience, demand that you should endeavor to meet requirements for your services with promptness, and dispatch the main business (*i. e.* the relief of your patient) before you dishearten them by irrelevant gossip with their attendants. When the visible means have been set at work, that tranquilizer, *sociability*, deserves consideration.

To secure promptness, you will find some order indispensable in our most irregular of all occupations. Your health is valuable to yourselves and to others, and should not be jeopardized by hunger, wakefulness, and fatigue, except in the most extreme cases.

If your location renders it necessary for you to dispense your own medicines, see that standard articles are kept in the most usable form, and that your cases are always supplied with tangible remedies for ordinary diseases and accidents, before you retire for the night or turn your thoughts to ease or pleasure. An empty portmanteau at midnight, and an excited messenger, are scarcely consistent with collected, efficient ideas. Blustering and hasty fudging may charm a few

lookers-on, but they will not be those whose admiration you value most. Cultivate, therefore, deliberate but active habits of thought and deeds—being neither precipitate in giving undigested opinions, nor tardy in putting decisions to thorough tests in cases of emergency. Gracious rolling of the eyes, and declarations that "another moment's delay would have been fatal," and then doing nothing, or worse than nothing, "because something must be done," will, as it should, make you the butt of ridicule or victim of remorse.

Displays of technical terms in useless profusion, or their use at all, when avoidable, before the unlearned, may make them gape with curiosity, but brings contempt ere the echo has died away. Mormon gibberish is as good evidence of piety as hard words are of learning, and the people know that real intelligence and refined tastes forbid the perpetration. Especially, when called before Courts of Justice, if you would avoid vexatious examinations, prepare yourselves to express all relevant facts and opinions in such language as will not require you to make dictionaries of yourselves, to be turned hither and thither by crafty attorneys or uneducated jurors.

While you discharge faithfully the responsibilities of our Profession as an art, and add to your worldly substance by its pecuniary considerations (for the laborer is worthy of his hire), remember that each of you possess vital interests in the development and "*status*" of medical truths and all collateral elements. Some return to the general fund is due, as usury for the capital entrusted to us. Let us never tire till our mite is added to the millions already contributed. Many generations of men will yet find employment in analyzing the nebulæ of facts which belong to, and influence, the human organism. Beams of light have been radiating unobserved from pre-Hippocratic times, through the firmament of our science, and yet gleam on enveloped in error or mystery, as Orion's rays traversed their rapid way through the long cycles of earth's molten and maturer centuries, in chaste

sublimity, until science and art, in adolescence, unveiled their charms.

You can not expect that your natural capacities, or present acquirements will avail any thing in this work, unless you keep pace as much as possible with the standard-bearers, and pioneers; which you can only do by subscribing for, paying for, and reading regularly, one or more reliable Medical Journals. You will require one, published at short intervals, from that vicinity to which your interests are most closely allied, to whose pages you may contribute whatever you may find of general interest; and can hardly do without one or more of those stately visitors which supply us with essays, reviews, and foreign medical literature. But do not suppose that these will supply the place of a well-selected, and frequently-consulted library of standard books.

Further, Gentlemen, let me urge you to make yourselves familiar with the Code of Ethics of the American Medical Association. Peruse it frequently, lest you forget the least of its valuable precepts, and conform your actions to its principles, whether your guarded etiquette is reciprocated or not. You may not find its rules in use the world over. Some of us "old fogies" do not appreciate, at first, that you are "grown up men," and entitled to equal consideration with us doughty knights of "experience." But you will out-grow your youthfulness, and should harbor no resentment, for time, and a thinking people will send retribution. Coals of kindness will burn through an enemy's head, sooner than the embers of malice.

It will be your duty to inform yourselves of the principles which govern the ordinary pursuits of life—of the chances of success or failure of enterprises, and undertakings—as far as the past will apply to the present or future. Communities look upon you as educated gentlemen, and your advice in non-professional matters will occasionally be solicited, and should be dictated by knowledge and common sense; for your

professional merit will often be judged by it. As you value knowledge, it will be your duty to stimulate and aid others in its pursuit.

Examples of studious cultivation, and counsels to those youths whom you find inclined to mental labor, may furnish the world with some well-grounded scholars where superficial conceited pedants would have grown. Neither wisdom nor pursuits are hereditary among us. The sons of each class choose entirely different vocations from their fathers; and who shall point them to the proper paths of preparation with more propriety than those whose care they first receive—on whom life, health, and happiness, amid a thousand ills and dangers, so often depend—whose skill supports tottering age along the margin of the grave, and smooths the rugged threshold of the tomb—and who, by tastes and circumstances, are led to become the patrons of science.

Again, Gentlemen, as one of the *most important* elements of success and happiness, as men, citizens, and physicians, we may advise you to attend early to that agreeable duty,—the union of interests with good wives. When you have made that desirable acquisition, please remember that a physician's wife has greater trials, privations, and anxieties, than any other legitimate department of female life, and that she should receive from yourselves corresponding consideration and attention.

If the halcyon boon of wealth, with all its pleasant visions, delays to crown your labors, complain not of the world, for it uses no class better than it does our Profession; nor of yourselves, for the most enviable abilities have struggled in poverty; but strive to possess your reward in consciousness of meritorious efforts. Protect your hearts from evil tendencies by active virtues, for your diplomas are not surety against ultimate depravity.

Finally, Gentlemen, you are not to be contemners of religion, nor dogmatists—satyrs, nor pedants—niggards, nor

spendthrifts—moles, nor bombasts—extortioners, nor prodigal of professional services—nor to imitate the most excusable of such practices; but love and foster *virtue*, *science*, and *purity* so long as you shall live. So shall your *Alma Mater* have glory in the record of this day, the degree MEDICINÆ DOCTOR increase of honor, and the high and noble of the earth shall rise up with the meek and grateful, and call you blessed.

ART. IX.—Report to the State Society on Zymotic Poisons.

BY W. W. HIPOLITE, M. D.

As I have been absent from your State during a greater part of the time since our last meeting, I am not prepared to report on the subject assigned me, namely, the Zymotic Poisons of the State of Michigan; for I do not even know whether any of these poisons have been sufficiently active in the production of disease within the limits of the State, since that time, to require particular attention, aside from a consideration of others of the same great class. But wishing to do some thing towards the fulfilment of my duty as a member of the Society, I submit a few considerations, of a general character, relative to this class of agents. It is with much diffidence that I do this, as the subject is one upon which men of high scientific attainments and extensive observation and research differ; and for one who has just left his Alma Mater, and stands trembling upon the threshold of the great field of practical medicine, fearing yet to enter, to venture to say any thing upon the subject may seem to savor too much of arrogance and egotism. I do this, however, not with the expectation of throwing any additional light upon the subject, nor of intensifying any of that which has already been shed upon it, for this I am unable to do, but to show a willingness to perform my appointed duty to the Society, so

far as I am able. And if the Society should reap any benefit whatever from my efforts, it will be in the encouragement my example may give to some of its members in the performance of their respective duties, rather than in becoming better acquainted with the subject of Zymotic Poisons.

The term *Zymotic* (from ζυμη, *ferment*) was originally applied to a class of toxical agents which are supposed to have an action upon the blood analogous to that which a ferment has upon the fermentable compounds — the former causing the materials of the blood to resolve themselves into a poison like itself, by a process similar to that by which the elements of the latter arrange themselves into new forms, possessed of new properties. If confined to its literal meaning, the term would be limited to those poisons which are supposed to act in this way, but it is now generally made to include all epidemic diseases, "and signifies that material specific poisons are the essential causes of these diseases."

It may be urged, as an objection, that a Zymotic Poison is a mere hypothetical entity — that "no positive morbid material has been discovered." This objection is good, so far as it goes; but the simple fact, that we are unable to directly demonstrate their existence by isolating them and rendering them cognizable to the senses, or determining their chemical composition, is very far from proving their non-existence. From the obvious fact that every effect is necessarily the result of the operation of a cause — or of a combination of causes, — and that the relations which exist between cause and effect must hold good in medicine as in every other science, it is evident that morbific agents of some kind are essential to the development of so-called Zymotic diseases.

It may at once be admitted that our belief in most of these agents is dependent upon inferential proof; that, save perhaps in a few instances, these subtle poisons have never been detected by the acutest human sense: but it must not be forgotten that the evidence of Chemistry itself is often

purely inferential; as, for instance, when we fail to prove the existence of a chemical substance by obtaining it in a separate form. Besides isolating such substances, we recognize their presence by witnessing the re-actions they display with various tests.

Now, the human body forms the most appropriate testing-apparatus of the Zymotic Poisons; and it is this alone which affords us the means of judging of their *dynamical* character —a knowledge of which is of vastly more importance than a knowledge of their physical or chemical properties. In Chemistry, less is known of the essential properties of a substance by examining it in a separate state than when it is studied in connection with other bodies, where its relations to these bodies may be ascertained. So it is with these poisons: if we could always obtain them in a separate state, and could subject them to chemical analysis, we should know much less of their most important properties than that which we can ascertain by studying their actions in the living system. By studying them in this manner, we find that they differ from the ordinary causes of disease in several striking peculiarities. The diseases which they produce can not be referred to a modification of the sensible or appreciable conditions of the atmosphere, for this notion is contradicted by the fact that they prevail in all climates—at all seasons—in every possible thermometrical, hygrometrical, barometrical, and electrical variations; and that they are distinct and specified in character, and preserve their identity under all these varying circumstances.

Let us now turn our attention for a few moments to an examination into the manner in which these peculiar morbific agents are supposed to operate in the blood, to re-produce themselves with such remarkable rapidity, and to so great an extent, as we know they do, based upon the hypothesis that they are organic compounds in a peculiar state of decomposition, which, owing to catalytic action, multiply themselves like a ferment.

Organic compounds generally are characterized by a great proneness to decomposition; and this instability is especially marked in those compounds which contain nitrogen; for in its relations to the other elements, this is the most remarkable element we know. Many of the compounds which contain it, can not be kept more than a few hours after they have ceased to be under the control of vital laws, without the commencement of decomposition; and, when they have once entered into this state, they acquire the properties of a ferment, and are capable of exciting a similar metamorphosis in another compound, if placed in contact with it.

In this transformation, the elements of the ferment take no chemical share in the metamorphosis of the body acted upon, but only act by inducing a state of change. Its agency, therefore, does not consist in furnishing any *material* to be employed in the composition of the resulting products, but in the *propagation of force;* it is not a *material*, but a *dynamical* influence.

The existence or non-existence of nitrogen in fermentable compounds gives rise to their division into two groups,—the azotized and the non-azotized. Those comprising the first variety have their particles re-arranged in such a manner as to form a substance having all the properties of the ferment originally employed; while those comprising the second variety, although susceptible of metamorphosis, are not resolved into substances capable of exciting a like change in other bodies;—in other words, the ferment is *re-produced* in the azotized compounds, but is not re-produced in the non-azotized. Hence, the potency of a ferment will, in a great measure, depend upon the presence of a nitrogenous substance in which it can excite the same change, and through which it can act upon other fermentable matter.

Now, the blood contains a large proportion of nitrogen, and it is well known that there is no other part of the organism which can be compared to this fluid, with respect to the

feeble resistance it offers to exterior influences. Its chemical affinities are constantly tending to its decomposition and to the arrangement of its constituent elements into different forms from those existing; but it is endowed with a vital force, which so modifies and controls the play of these affinities as to prevent decomposition while in possession of this force. As soon, however, as this is diminished below a certain point, the chemical affinities are enabled to prevail over the the vital affinities; and a change of character is the result. If, in addition, there is the catalytic force of some Zymotic Poison, to assist the chemical against the vital laws, this change in the character of the circulating fluid is brought about with greater rapidity and ease. LEIBIG says, when speaking of this fluid,—"The chemical force and the vital principle hold each other in such perfect equilibrium, that every disturbance, however trifling, or from whatever cause it may proceed, effects a change in the blood."

In its normal state, the blood is constantly undergoing alterations, both in its chemical constitution and in its vital properties. It supplies to the tissues some of its most important elements, while at the same time it is made the vehicle for removal, from these tissues, of ingredients which have lost their vital endowments, and are no longer in a state of combination that fits them for their offices in the vital economy. Hence, the blood not only contains the materials for the regeneration of the tissues, but also the products of their decay; and the results of the functions of assimilation and elimination so exactly balance each other that there is a remarkable uniformity of composition of this fluid at all times during health. Any thing that interferes with these changes, or turns them to another direction, may become a cause of disease.

In disease, this vital principle may become so far depressed as to be unable to resist the natural chemical affinities when no Zymotic Poison is present. Changes may go on to a

greater or less extent, according as the restraining force is more or less depressed. The balance of the vital and chemical affinities being unstable, and the latter, themselves, tending to arrange the constituents of the blood in different forms from those existing—unless prevented by sufficiently powerful vital affinities—it takes but a slight force to destroy the equilibrium and overturn the existing arrangement of the elements and forces, so that new compounds are produced.

The Zymotic Poison—a decomposing organic molecule—has been introduced into the blood. Now, this molecule has the power of imparting changes of an analogous character to other molecules which surround it; these, in turn, excite disease in their neighbors; and by a continuance of this process, from particle to particle, the entire mass of the circulating fluid becomes changed. According to LEIBIG, the manner in which the septic matter operates upon the surrounding materials, to induce a change in them, is this: The particles or molecules of the exciting body being in a condition of change, and therefore of motion, communicate to the molecules of the body placed in contact with them an amount of motion sufficient to destroy the balance of the existing affinities—which in organic compounds is easily done, the chemical equilibrium being very unstable,—and thus gives rise to a new play of affinities, and the production of new compounds. It is said to act by "catalysis," or by the "action of presence," as it is sometimes called.

As soon as the nutritive fluid becomes contaminated, it extends its influence to every part of the organism, and every function feels its depressing influence. The several emunctories through which the poisons should be eliminated, become sluggish, and do not remove so much of the poison and effete matter as they do in their normal condition. As a consequence of this, the blood becomes still further poisoned by the retained materials, and these supply a peculiarly favorable nidus for the further development of the poisons. Soon,

instead of being the *pabulum vitæ* of the whole system, the blood becomes the vehicle of destruction and death to every part of the organism.

Some of these agents have a stronger determination to multiply themselves than others have — those of the greatest power being capable of inducing these changes when the circulating fluid possesses its greatest amount of vitality, while others are not able to act without a previous diminution of this, unless it is low in any given instance. The *"vis medicatrix naturæ"* attempts to eliminate them from the system; and frequently this can be done before the poison is much extended, but in other cases the poison extends itself in spite of nature, and this, too, in the most healthy blood.

That in Zymotic disease there is a change in the blood, from an admixture of foreign matters, is evident from the following classes of facts:

1. The phenomena of Zymosis are produced when putrid matters are injected into the veins of animals.

2. They are also produced by the entrance of such matters into the system in any other way, as by inhalation.

3. These diseases can be produced by inoculation with their specific poisons.

4. Observation shows that in Zymosis, the blood is in a state of partial dissolution.

All of these facts are so familiar to every physician that it would be superfluous for me to dilate upon them here; and it is unnecessary to direct attention to any particular examples of this kind.

But one of the strongest arguments in favor of the Zymotic theory of epidemic diseases lies in the fact, that all those conditions which most favor the reception and propagation of the Zymotic Poisons, are conditions in which there is an undue accumulation of effete azotized matter in the blood, in a state of retrograde metamorphosis. This matter affords

the best possible nidus for the further multiplication of the poisons; for it has lost its vital endowments, and is already in a state of change, from the operation of ordinary chemical laws. In this condition, the Zymotic Poison finds little difficulty in setting on foot those changes which are to result in the new generation of a like agent. And it has been found that this state of the blood is the most common and effectual predisposing cause to epidemic diseases which can exist. In those places that have the greatest accumulation of filth, you find the greatest mortality among the inhabitants during the prevalence of epidemics; and the rate of mortality is in exact proportion to the uncleanliness, other things being equal. And so it is with individuals,—those who have the greatest accumulation of decomposing matter in their blood, are the ones who are soonest attacked by disease and removed by death, upon the accession of an epidemic.

Dr. CARPENTER arranges the generally-recognized predisposing causes of Zymotic disease into three classes, as follows:

1. Those which tend to introduce into the system decomposing matters that have been generated in some external source; such as putrescent food, miasmatic emanations, etc.

2. Those which occasion an increased production of decomposing matter in the system itself. This increased production arises from any unusual source of degeneration of tissues within the body, such as presents itself in the puerperal state, or as a consequence of severe muscular exertion, etc.

3. Those which obstruct the elimination of the decomposing matter normally or excessively generated within the system, or abnormally introduced into it from without. Among these causes are, insufficient supply of air, an elevated temperature, and the use of tea, coffee, and the alcoholic preparations.

Dr. CARPENTER goes on to show that each and all of these causes tend to the production of the very same condition; and this condition is "an accumulation of disintegrating azotized compounds, in a state of change, in the circulating current." He fully substantiates this view by arguments deduced from a

vast assemblage of facts; and he clearly proves, I think, that the Zymotic Poisons owe their potentiality to the condition in which they find their patient; and that many of them fail in producing their characteristic effects when this impure condition of the blood is not present.

ART. X.—Report to the State Society on the Diseases of Children.

BY A. B. PALMER, M. D.

AT the last meeting of this Association I had the honor of being appointed to present a Report on the *Diseases of Children.* In discharging the duty imposed by that appointment, in the absence of any intimation as to the particular department of the general subject which it may have been thought desirable to have presented, and considering the fullness with which particular forms of Children's Diseases are treated of in the books accessible to all, I propose to present to your attention the importance of carefully studying these diseases, with a view, if possible, to diminish the extensive suffering and terrible mortality prevailing almost every where among these little innocents of "tender age." Leaving, then, for other hands, or for other occasions, if the subject should be deemed worthy of being pursued, a special consideration of the peculiarities of the Diseases of Children, or the particular causes which operate in their production, the subject of this Report will be, *The great importance and urgent duty of specially studying the Diseases of Children.*

Our Profession is a benevolent one. To do good is our business. We are placed as guardians over the public health. We are to repel the enemies of human life. It is our special province to shield from danger and relieve the suffering of those who, from a want of knowledge or of power, are unable

to protect or relieve themselves. The great danger, the utter helplessness, the total dependence, and the severe suffering of sick infancy, appeal most eloquently to our benevolence. We have all been children — dependent, helpless children. We have all had a mother's care; and in our intercourse with the world, we have observed something of the all-pervading intensity of a mother's love. Many are fathers; and all have witnessed the calm, deep earnestness of a father's affection. As sympathizing integers of a common humanity — as men, as well as members of a benevolent Profession, — the sufferings and dangers of children are urged upon our attention.

But I propose to present the subject in a scientific and more strictly professional point of view.

The extensive prevalence, the great severity, and fatal character of the Diseases of Children, render them subjects of intense professional interest.

As the result of careful investigation, and of accurate statistical record, it is found that throughout England and Wales, *one child in five dies within a year after birth, and one in three before the completion of the fifth year.* Taking into the account only the larger towns and the metropolis of Great Britain, a much larger and more frightful proportion of infantile deaths, compared with the survivals, will be found. According to these statistics, each young family containing three little children must expect to deposit one of them in a diminutive grave, and experience all the sadness of desolation — all the anguish of wounded affection — which such an event involves.

As to the infant mortality among us, in the absence of proper Registration Laws, we are unable to speak with the same particularity and precision. Some of the older States, it is true, have Registration Laws in force, but none of them have the perfection of those of England and Wales; and in our own State (I say it in sorrow and in shame), the subject,

except as observed by individuals, is totally neglected. Even in this city, I have sought, through a medical friend, in vain, for records which would indicate the number of children that have died during the past year, as compared with the whole mortality! Whether it is made the duty of any officers to keep such records, I have not learned, but, if so, it seems to have been neglected.

In many of our larger eastern cities, mortuary records have been kept for many years past, and, from these, tables of mortality have been constructed. They merely, show, however, the number of deaths at different ages; but from them we do not learn the proportion of those that are born who die in infancy. We however know the positive infant mortality, and its proportion to that which occurs at more mature age.

The deaths in the city of New York, during fifty years, from 1804 to 1853 inclusive, was 363,242, and of these 176,-103 occurred in children under five years. This is something less than one-half; but during the latter part of this period the proportion of infant mortality has been increasing, so that for many years past more than one-half have been under five years. Thus, in 1854, the total deaths under five years was 15,673; and above five years, 12,895. In 1855, the total under five years was 14,063; and above that age, only 8,979. In 1856, under five years, 13,373; above, 8,285. During this latter year nearly five-eighths of the total number of deaths were under five years, and over one-half were under two years, and nearly three-eighths were under one year.

Though the proportion of infant mortality is greater in New York and the other large eastern cities, and is rapidly increasing there, while decreasing in most of the European cities, yet our own small cities and interior towns present pictures scarcely less appalling.

From a table of the deaths in Coldwater, during the year 1856, presented, at the last meeting of this body, by one of its most industrious members, Dr. J. H. BEECH, we learn that

of the 70 cases, 38 were over five years, and 32 were under that age. From the records of the city sexton of Ann Arbor, the seat of our University, and one of the most healthy localities anywhere to be found, the deaths during the past year (1857) were 56, of which 22 were of persons over five years, and 34 under that age.

From the records of the city of Chicago for 1856, containing a population of 110,000, though somewhat imperfectly kept, and perhaps not altogether reliable, we gather that 1,950 deaths occurred, of which about 800 (something less than one-half) were under five years.

These facts are sufficient to show the enormous proportional extent of Disease and Death among these tender buds of humanity, and to commend the subject, on this account, to our consideration, as of special professional importance.

But can these results be avoided? Is it not in accordance with the plan of the Creator—within the designs of Providence—that a large portion of the human family should perish in their infancy—should thus be cut off before the full development of their being?

Although medical men are prepared to answer these questions in their own minds more promptly than others, yet perhaps, even among us, they require a respectful consideration. There can be no doubt of the fact that hygienic and medical management can alter these results; as well might we question whether the careless farmer, who so manages as to allow his young lambs to make their appearance in the dead of winter, and without proper protection leaves them to their almost inevitable fate, could have altered the results, by having them first open their little brutish eyes to the light of a vernal sun, and having for their first couch the warm earth, covered with Nature's carpet of green, instead of the frozen earth, covered with the winding sheet of snow.

About one hundred years ago, it was found, that in the imperfectly ventilated and improperly managed work-houses

of London, of every *twenty-four* children born and retained in the establishments, *twenty-three* died before attaining the age of one year! The subject was inquired into by Parliament; an improved system of management was adopted, and the proportion of deaths was quickly reduced from 1,600 to 450 a year, thus saving annually, in these single establishments, over 2,000 lives!

The more fully we realize, and the sooner all men and all women understand that disease and death are the results of fixed physical laws, and that most cases of sickness and *premature* death are the results of the palpable violation of these physical laws — the necessary penalties of physical wrong-doing — the better will it be for the human race; at least, if healthy existence is a blessing. That diseases are the results of the operation of natural laws, and not special Divine infliction, is no new doctrine among medical men; it is, at least, as old as HIPPOCRATES, and has indeed ever had an existence among the eternal truths of nature. There is a mistaken notion among many good people, which attributes all cases of sickness, injuries, and death, among their friends at least, to to a *Mysterious* Providence, though capable of being traced, with the utmost certainty, to violations of general and beneficent laws. I take, for illustration, a case of actual occurrence now present to my mind.

A mechanic was engaged in constructing a building. He was upon a scaffolding some distance above the ground, so built as to be capable of sustaining a weight, say, of three hundred and ninety-nine pounds. The weight of the man, and his building materials placed upon the scaffold, was, say, four hundred pounds. In accordance with the fixed laws of attraction — of cohesion and gravitation — the scaffold gave way, and the man fell to the ground. The momentum acquired by the fall, his position, and the particular condition of the surface, resulted, according to the same fixed laws, in a fracture of his leg. The poor man was conveyed to his

home, where he was soon surrounded by his kind friends, and the venerable patriarch of the group spoke almost complainingly of a *Mysterious Providence* which had placed the good man, so much needed by his family, upon a bed of helpless suffering.

Now I do not accuse the sufferer in this case of having committed any moral offense — that is another and a distinct question; but, though committed ignorantly, I do accuse him of having violated the physical laws of GOD, established for the order and harmony of the Universe; and he was but suffering their just and necessary penalty in the injury inflicted. Instead of being a mysterious dispensation, it was the most natural, and, indeed, without a miracle, the only possible, result of his own free act. But, suppose a miracle had been interposed, and, for his supposed puny accommodation, the general law of gravitation had been suspended; — planets and systems would have been thrown from their orbits, and the Universe would have fallen into dissolution. Or, if the law of gravitation had been suspended only as it related to his own body, he would have remained above the earth, and been thrown from its surface, while it whirled on its diurnal motion, and it would have passed entirely from him, leaving him in the broad waste of space as it flew on with lightning speed in the path of its annual orbit; and the poor man, if he could have collected his thoughts in time, would have cried out for the restoration of the law, though in its beneficent operation it had cost him the pain and danger of a broken leg.

I do not say the man was not laid upon his bed of suffering by the hand of Providence. He was placed there by that Being who has bound all nature fast, not in fate, but by law, and who, while not allowing a sparrow to fall to the ground without His notice, yet causes every sparrow to fall in obedience to the same law which holds the sun in the heavens.

I do not say that every casualty, sickness, or premature death is as easily traceable to an apparent cause as in the

case I have instanced to illustrate the principle; or that in every case evil results may be avoided as easily as they could have been in this. I do not say that in every case, sickness and premature death can, by any means, be avoided. From the unfavorable circumstances and errors of the ancestral race, there is often a feebleness of the vital force in individuals, which renders them incapable of enduring the ordinary vicissitudes of the most favorable hygienic circumstances, and with whom no care or skill can avert such consequences. Besides, there are contagious and other diseases which attack the most vigorous and best cared-for, which our present knowledge does not enable us to prevent. But I do say that all diseases are due to natural causes; that a very large proportion of them —that especially the enormous infant sickness and mortality which our statistics show to exist—are produced by causes which may be avoided, and which it is our special duty to search out, expose, and correct.

Let not what has been said respecting the fixed character of the physical laws, be misunderstood as tending to fatalism. The uniform and certain operation of these laws in no way interferes with the liberty of the human will or the accountability of the free agent. The doctrine advanced rather increases accountability, by extending it to acts under the physical laws.

I do not propose to pass beyond the limits belonging to a consideration of this subject from the stand-point of my own Profession. A special inquiry into the designs of the Creator in a theological and metaphysical sense, I shall leave, for the present at least, to those whose more special province it is to deal in such questions. It is sufficient for us to know that our business as physicians, and our duty both as physicians and men, is to prevent and relieve human suffering, and save human life; and I have no reason for admitting the thought, that it was within the Divine plan that a large portion of the human family should be cut off in infancy, thus destroying so many specimens of handiwork, before their completion.

It would be a grave error, in my estimation, to suppose that the Creator designed that any of his laws should be violated; but it seems to have been in His design that, when any of those laws were violated, a penalty in kind should follow their transgression. The man or woman who, either knowingly or ignorantly, violates one of the natural or physical laws of his or her being; or the man, woman, or child, in relation to whom, by whatever agency, a physical law is violated, in the fixed economy of the Universe must suffer a physical penalty—a penalty commensurate with the gravity and extent of the violation. The suffering of a physical penalty is irrespective and independent of any moral quality in the violation; but disobedience to physical laws becomes a moral offense when done consciously and willfully. As the guardians of helpless infancy, the moral responsibility is ours. We have no more reason for believing that the Ruler of the Universe desires the physical suffering and death of the physical transgressor, than that He desires the moral death of the moral transgressor. It is true that the results occur in both instances from the operation of laws which He has established; but those laws were established for beneficent purposes—to develop animal and spiritual life and being, but not to destroy it.

It is sometimes fondly and poetically said, that certain little children, though ever so much the victims of mismanagement and consequent disease, are quite too pure for earth. In all given cases, it would perhaps be unkind to rudely take from a bereaved parent the consolation which such a sentiment would afford; but whatever may be the condition of the innocent little spirit, the simple truth in relation to the material body is, that it is too corrupt for remaining on the earth. We certainly could not be justified in saying that, in any sense, the 2,150 infants under one year old which annually died in the work-houses of London, previous to the reform before referred to, were more pure than the same number annually saved from death by that reform.

But it may be suggested (though it is impossible it should be by medical men), that, after all, it may be as well that children are thus removed from the evil to come. Are we thus to judge of Heaven's great gift of life? If such considerations are to abate efforts for preserving infantile life, let us say no more of the inhumanity of the sacrificing of children to heathen gods, or of the barbarity of casting them by hundreds into the waters of the Ganges. This speedy and almost painless method of destroying them is humane and merciful compared with the protracted suffering and lingering death which bad hygienic and medical management so often inflicts; far better would it be for the infant in New York to be cast into the Hudson to become food for the fishes, than to slowly die from want of pure air, of proper food, and of the light of heaven, whether it be in a bare and squalid cellar at the Five Points, or in a deeply-curtained and highly-perfumed chamber on Fifth Avenue; and then in the one case be cast, at the city expense, into a hole in the Potter's Field, and in the other to be solemnly deposited, surrounded by all the pomp and circumstance of magnificent woe, by the side of some tall family shaft in Greenwood. Though the grave of the one may be long strewn with flowers by the hand of affection, and its name be engraved in enduring marble, while the memory of the other is soon effaced even from its degraded mother's heart, yet the little bodies alike become the prey in the earth of the same noisome worms and decaying elements. The infant cut off from life before its conscious freedom is attained, is, of itself, but a blank in the world into which it has been introduced for other and higher purposes; and however diverse the circumstances of introduction and exit, to the same condition does each come at last. The handiwork of the Almighty has been destroyed—a beautiful casket, if it be regarded as nothing else, has been dashed to earth.

I have been led into these remarks, some of which may

be regarded as digressive from the strict line of the subject, by the fact that it seems to be regarded by most persons as a matter of course, as proper as the order of nature and necessity, that a large portion of Children should die. Many of the clergy preach thus, and all poets sing thus, and most people believe thus. I regard this sentiment as a grave error —a fatal heresy which has invaded the creed of humanity; for while such an opinion prevails, neither proper inquiries into the causes of infant mortality will be made, or efficient efforts will be put forth to prevent the effects of those causes. Every principle of political economy, of humanity, and of our enlightened and benevolent Profession, requires that the most careful inquiry and the most rigid efforts should be made.

But medical men should specially study the Diseases of Children because these diseases differ from those of adults. They can not be understood without this special study. They are different in their course and character, different in their appearances and treatment, and different in the methods by which they are distinguished. On these various points, however interesting, I do not propose specifically to dilate.

All those who distinguish carefully and watch closely the Diseases of Children, appreciate the force of the remarks just made. The expressions of the various suffering organs are widely different from those of the same organs in adults; and the helpless silence, the passionate agitation, and the fretful timidity of the child, combined very often with the exceedingly imperfect accounts of the attendants, sometimes hopelessly perplex even the acute physician, unless by study and care he has made himself perfectly familiar with the physiognomical appearances, pantomimic movements, and inarticulate sounds, as well as the physical signs expressive of different forms of disease, and also of the best methods of eliciting or observing them, and of overcoming all the difficulties to be encountered in the investigation. So great are these difficulties of diagnosis in many cases, that some practitioners,

after a few fruitless efforts, become satisfied with their ignorance, and declare it useless to attempt accurate diagnosis. It is unnecessary to say that treatment without correct diagnosis must be quite in the dark, and, if at all active, must be iminently hazardous. In many cases the delicate system of the child illy bears perturbation, and the feeble spark of life may be easily extinguished. This delicacy of organization, and great susceptibility of medicinal impressions, while rendering the child more liable to be injured by rude or inappropriate treatment, renders him highly capable of responding to curative agencies, when nicely adjusted to the powers of endurance and the morbid conditions.

It requires, then, more penetration to distinguish accurately the Diseases of Children than than those of adults, and more skill to manage their cases in the most successful manner. If a professional subject increases in interest with its difficulty and its importance, then have the Diseases of Children the intensest professional interest. But do we all regard the subject in this light? Do we all take that interest in these diseases, and bestow that attention upon them they deserve? If the Profession every where did so, would not the complexion of our bills of mortality be altered? Do we not often, by our appearance of indifference in particular cases, intimate that the neighborhood gossip, or some ready globulist, can manage these cases as well as ourselves?—and are we not thus instrumental in turning these children over to be drenched with the vile decoctions, or temporized with infinitesimals, when rational and skillful treatment is imperatively required?

If in this very imperfect presentation of this subject, I have said any thing which shall arouse members of the Association to a higher sense of its importance, and call forth, to any extent, corresponding efforts, I shall have accomplished my most sanguine hopes, and the little labor I have bestowed upon this Report will not have been expended in vain.

DETROIT, January 15th, 1858.

ART. XI.—Anatomical Abnormities.

By A. M. Helmer, M. D.
Demonstrator of Anatomy in the University of Michigan.

In pursuing our course in Practical Anatomy, during the past season, it has been our fortune to have met with some few abnormities, such as are always found, to a greater or less extent, in the dissecting-room. Should you deem the following of sufficient importance, you may insert them in your journal:

Case I.—In an adult male, the rectum was found going down the right side of the pelvis, sigmoid flexure passing from left to right in front of the promontory of the sacrum.

Case II.—*Double Ureters.* In adult male, the left kidney was possessed of two distinct ureters of equal size, passing down to the bladder separately, and entering it about one-half inch apart, both susceptible of distension, and of about equal size.

Case III.—*Latissimus Minor.* In a large and muscular adult female, a slip, or head, about one-half inch in width, with a beautiful tendenous expansion, passed from the latissimus dorsi, in front of the axillary vessels and nerves, to be inserted into the anterior bicipital ridge, in close proximity to the pectoralis major.

Case IV.—*Tri-headed Biceps.* In an adult female, a distinct slip, or muscle, equal in size with the other two heads, arose from about the insertion of the coraco-brachialis, and, joining the two heads proper, passed down to usual insertion.

Case V.—*High Bifurcation of the Brachial Artery* in left arm, uniting in the axillary space.

Case VI.—*Renal Arteries Supernumerary.* In an adult male, an extra renal artery was found, given off on either side of the aorta, about an inch below the renal proper, entering the kidney in the lower lobe or extremity; also a branch given off from the renal, piercing the upper extremity in like manner.

ART. XII.—Meteorological Register for the Month of March, 1858.

BY L. S. HORTON, House Physician to U. S. Marine Hospital.

DATE.	BAROMETER.			TH'MOMETER. ATTACHED			WINDS—COURSE & FORCE.			WEATHER.			RAIN.			REMARKS.
	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCH.	
1	28·9	28·9	29·	11	20	9	12	20	10 N.	2 W.	3 S.W.	3	Cloudy	Cloudy	Cloudy	
2	29·	29·	29·	8	18	10	6	15	11 S.W.	3 S.W.	3 S.W.	2	Fair	Fair	Cloudy	
3	28·9	28·9	29·1	7	15	3	8	15	2 S.W.	2 W.	3 W.	2	Cloudy	Fair	Fair	
4	29·1	29·2	29·1	3	12	5	1	11	4 S.W.	3 S.W.	3 S.W.	2	Fair	Fair	Fair	
5	29·2	29·3	29·1	2	16	6	3	15	5 W.	1 S.W.	2 S.W.	2	Fair	Fair	Fair	
6	29·	29·	29·	7	15	20	6	14	21 S.W.	2 S.W.	2 W.	2	Cloudy	Cloudy	Cloudy	7 A.M. 8 A.M. ? Snow.
7	28·9	28·9	28·9	18	22	22	18	29	20 S.W.	2 S.W.	2 S.W.	2	Cloudy	Cloudy	Cloudy	8 A.M. 9 P.M. ? Snow.
8	28·8	28·6	28·6	17	20	20	17	28	19 S.W.	2 S.W.	4 W.	2	Cloudy	Cloudy	Cloudy	
9	28·7	28·6	28·7	23	25	25	24	32	24 W.	1 N.	2 S.W.	2	Cloudy	Cloudy	Cloudy	
10	28·7	28·7	28·6	22	35	35	21	42	37 S.E.	2 E.S.E.	3 S.E.	4	Cloudy	Cloudy	Cloudy	7 P.M. 8:10 P.M. ·009
11	28·6	28·9	29·	40	52	32	41	53	31 W.	4 S.W.	2 W.	2	Cloudy	Fair	Fair	
12	29·1	29·1	29·2	28	44	31	27	44	32 S.W.	1 S.W.	3 S.W.	2	Fair	Fair	Fair	
13	29·3	29·2	29·1	33	45	40	34	44	39 E.	2 N.E.	2 W.	2	Fair	Cloudy	Cloudy	11 P.M.
14	29·	29·	28·9	42	51	47	43	52	47 S.W.	2 S.W.	2 S.W.	1	Cloudy	Cloudy	Cloudy	
15	28·9	29·	29·	48	55	50	48	56	49 S.	1 S.	2 S.	1	Cloudy	Cloudy	Cloudy	
16	29·	28·9	28·8	52	61	56	53	62	57 S.	1 S.	2 W.	2	Cloudy	Cloudy	Cloudy	
17	28·2	28·2	28·5	54	62	51	53	63	50 N.	2 W.	3 S.W.	4	Cloudy	Cloudy	Cloudy	4 P.M. 1·18 Opening of Navigation.
18	29·	29·1	29·2	42	56	38	44	56	37 S.W.	2 S.W.	2 S.W.	2	Fair	Fair	Fair	
19	29·2	29·4	29·2	41	51	40	43	52	40 S.	2 W.	2 W.	2	Fair	Fair	Fair	
20	29·1	28·7	28·4	37	48	50	38	55	47 N.	2 S.W.	2 W.	3	Fair	Fair	Cloudy	4 P.M. 6 P.M. ·24
21	28·5	28·5	28·7	43	44	34	44	44	34 S.	4 E.	4 S.W.	2	Fair	Cloudy	Fair	1 P.M. 3 P.M. ·01
22	28·9	29·	29·	30	40	29	31	41	30 S.W.	2 N.E.	2 E.	2	Fair	Fair	Fair	
23	29·	29·1	29·1	29	40	30	28	39	28 N.E.	2 N.E.	2 N.E.	2	Fair	Fair	Fair	
24	29·1	29·2	29·2	34	51	42	34	50	41 N.E.	1 S.W.	2 S.W.	2	Cloudy	Cloudy	Cloudy	
25	29·2	29·	29·	45	57	35	45	58	36 W.	2 S.W.	4 S.W.	2	Fair	Fair	Fair	
26	29·	29·	29·	38	44	35	38	45	36 N.E.	2 N.E.	2 E.	2	Fair	Fair	Fair	
27	28·9	28·9	28·9	36	43	36	37	43	35 N.E.	1 N.E.	2 S.E.	2	Fair	Cloudy	Cloudy	1:30 P.M. 4 P.M. ·04
28	28·9	28·9	29·	38	40	30	37	40	29 N.E.	2 E.	2 N.E.	1	Cloudy	Cloudy	Fair	
29	29·	29·1	29·1	32	48	31	31	47	30 W.	2 S.W.	2 W.	2	Fair	Fair	Fair	
30	29·2	29·2	29·2	32	52	33	33	51	34 S.W.	2 N.E.	2 S.W.	2	Fair	Fair	Fair	
31	29·1	29·1	29·	37	52	34	37	53	34 N.E.	1 N.E.	2 E.	2	Fair	Fair	Fair	

Bibliographical Record.

LECTURES ON SULPHATE OF QUINIA: Delivered in the Regular Course of the Medical Department of the University of Michigan, by A. B. PALMER, A. M., M. D., Professor, &c. Published by the Class. Detroit: 1858.

CAUSES, NATURE, AND TREATMENT OF SCURVY. Read before Covington and Newport (Ky.) Medical Society, by CHAS. S. TRIPLER, M. D., U. S. Army.

MESSRS. EDITORS: Feeling under obligations to a professional friend for the pleasure of perusing a paper by Dr. CHAS. S. TRIPLER, of the army, on the *Causes, Nature, and Treatment of Scurvy*, and a pamphlet of fifty-nine pages by Professor A. B. PALMER of the University, on *The Sulphate of Quinia*, being an extract from his regular Course of Lectures on Materia Medica, I am prompted by that consideration to ask the privilege of calling the attention of your readers, notwithstanding the suspicion of premeditated flattery that may attach to your correspondent for so doing, to these two excellent papers, neither of which, in point of magnitude, aspires to the dignity of an essay. And, first, of the "Lectures on Sulphate of Quinia."

The Lectures themselves being but an abstract of the views of the author on the subject of which they treat, it is for that reason the more difficult to epitomize them, and, at the same time, give an intelligent idea of what they contain. I shall be very brief, and yet hope not to fail in perspicuity.

Passing over the literature of Cinchona, the Lectures commence with a mere allusion to the discovery of this alkaloid by M. PELLETIER, and to the priority of M. MAGENDIE as an experimenter for the purpose of ascertaining its relations to to animal vitality. Having, from a consideration of the physiological action of Quinine, convinced himself that it is both a *febrifuge* and a *tonic*, the lecturer proceeds to state his views of its therapeutic effects. On this branch of his subject the *western man* becomes conspicuous, and the teacher earnest and eloquent, evincing the influence of this alkaloid over the *modus agendi* of his own nervous centre, without involving the necessity of an inquiry into more recondite questions, such, as whether it produces these obvious results by a catalytic or restorative power.

The doses and mode of administration are more particularly treated of, and also the circumstances under which it may and may not be administered. These we will not recapitulate, as it is not our design to write an article on the theme of these Lectures, which we would advise every Michigan practitioner to read. The right use of Quinine, in the treatment of miasmatic disease, is a matter of interest to every citizen of the State, as well as to every physician. And the views of Dr. PALMER are so nearly unexceptionable, that I take pleasure in endorsing them.

Not the least interesting part of these Lectures to us, is the concluding one, on the relations of this remedy to diseases not imputed to malaria. For information on that head, we must refer to the pamphlet itself.

Having encroached upon your space so far with my remarks upon the Lectures of Professor PALMER, I feel obliged to dismiss the paper of Dr. TRIPLER, without giving it the notice it is intrinsically entitled to.

Dr. TRIPLER demolishes entirely the absurd distinction which has so long been kept up between Land and Sea Scurvy. His opinions on its etiology are more clear and

satisfactory than any I recollect having read. His appreciation of the influence of a low temperature is very correct. To this he should have added the depressing effect of humidity and of that state of mind, in seamen and soldiers, called *Nostalgia* by the nosologists, which has much to do in the induction of that state of the fluids, independently of the quality of the food, which precedes the outbreak of Scurvy. Although a brochure of only twenty pages, it will amply repay a careful perusal.

SENEX.

SILVER SUTURES IN SURGERY. The Anniversary Discourse, before the New York Academy of Medicine. By J. Marion Sims, M. D., Surgeon to the Woman's Hospital. New York: S. S. & W. Wood, 1858. 79 pp.

We received the above pamphlet with pleasure, and with the expectation that surgical merit was offered to the Profession, by a meritorious hand, in a commendable spirit and manner. On perusal, however, we could but feel regret that *special pleading* was the chief design apparent in the effort. Does Dr. Sims apprehend that the Medical Profession is a jury of laymen who will accept, as valid, his strictures upon the silken suture?—strictures, the intent of which is to establish so radical a difference between the silken and silver suture, that the introduction of the latter constitutes "THE GREAT SURGICAL ACHIEVEMENT OF THE NINETEENTH CENTURY." (The capitals are Dr. Sims' property.)

And Dr. S. does not forget that Anæsthesia is also *an* achievement of the present century; for he says: "in practical results of permanent benefit, it is absolutely *contemptible* when compared with those from the universal use of silver sutures in the broad domain of general surgery." (!!) Pleasing to our Boston brethren, we apprehend!

But aside from the unpardonable egotism and bad taste displayed by Dr. S., we must also find fault with his philoso-

phy. We confess that the idea of air being permitted "to rush into the vagina," and by its universal pressure, to distend it "like a balloon," was, to us, something new; and until the tendency to a vacuum *outside* the vagina is explained, we shall be at a loss to comprehend the "rushing in" process, which formed so important an "incident" in Dr. Sims's history! Seriously, we advise our author to confine his efforts to Practical Surgery, and leave others to speak his praise and record his triumphs.

Of the latter, we most cheerfully bear testimony, that they are truly great. In the treatment of vesico-vaginal fistula, Dr. S. has attained the most perfect success. He has reduced to practical application, what, previous to his efforts, was little more than a theoretical operation. In the present pamphlet, he makes some modifications of the operation—viz., reliance solely upon the silver suture, without either leaden bars or button; the use of a simple needle and long forceps; the catheter so altered as to conduct the urine into a cup; and the position of the patient, "in the great majority of cases," upon the "left side." "In this position the thighs are to be flexed at about right angles with the pelvis, the right a little more than the left. The left arm is thrown behind, and the chest rotated forwards, bringing the sternum quite closely in contact with the table, while the spine is fully extended, with the head resting on the parietal bone."

We repeat, that Dr. Sims's contribution to Practical Surgery is invaluable; and while we award to him the most cheerful praise, we must be permitted to express deep regret in reference to the tone of his Address. G.

Editorial Department.

Removal of the Medical Department.

At the late meeting of the Board of Regents, the subject of removal of the Medical Department of the University to the city of Detroit was referred to a Committee, to report upon at a subsequent meeting. Although the Report of this Committee may be a foregone conclusion, and although arguments in favor of or against the measure may be works of supererogation, we propose to consider somewhat in detail the reasons why the Department should be transferred from its present location to one where greater advantages could be enjoyed, a higher standard of education be attained, and, consequently, a greater amount of glory be shed upon the University, and a greater degree of benefit be experienced by the people of Michigan, on whom very many of the graduates of the Medical School are to exercise their skill. Justice to ourself, as a medical educator, conservator, and journalist, prompts us, at this time, to place upon record views, which are not alone our own, but which are entertained by nine-tenths of the Medical Profession throughout the Union.

In the *Medical Independent*, we have, during the past season, published several articles, in which we have advocated a higher grade of Medical Education, and the establishment of attendance upon Clinical Medicine and Surgery as one of the *requirements* for graduation. The great advantages to be derived from bed-side study none are bold enough to deny. The possibility of preparing a student to assume, *safely*, the

duties of the Practicing Physician and Surgeon, without such study, few who have passed the ordeal, and felt the responsibilities of human life placed in their charge, will be prepared to maintain. Hence, whenever interest has prompted the advocacy of medical education without clinical study, the main effort has been to arraign Hospital-instruction for its short-comings, to criticise it *as practiced*, and not to attack the principle involved.

Within the last few months, each of the two journals which are consolidated under our present title has published a statement of the clinical requirements made by the several Universities and Colleges of Great Britain; by reference to which, it will be seen that the *least time* which is required to be devoted to attendance upon clinical instruction, by any of these institutions, is *twenty-one months*, and that no British college grants its diploma without the recipient has devoted from *twenty-one to thirty-six months* to this kind of study. Such is the estimate placed upon Hospital advantages in our Mother Country. In our own, competition for numbers and emoluments has, thus far, prevented any school from instituting so rigorous a requirement as the one under consideration; consequently, Hospital-teaching has not been so efficiently developed as to be exempt from severe criticism. Yet, notwithstanding its imperfections, the crowds of students who flock to New York and Philadelphia, sufficiently attest the high estimation in which it is held by the Profession. The comparative history of country and city medical schools, points also to the same impressive fact. The Medical Department of our own University is at present the only prosperous country medical school in the United States, while several (some of which at one time assembled a greater number of students than our school ever did) *have ceased to exist.*

In the National Association, legislation has gradually tended towards the establishment of the doctrine of the necessity of Clinical Instruction, notwithstanding the diploma-

granting powers, the schools, have insidiously opposed such a restriction of their prerogative. At its last meeting (one year ago), an earnest discussion on this subject was had, in which the imperfections of present requirements were fearlessly exposed, and finally the whole subject was referred to a Committee, composed of gentlemen who are in no way connected with any medical schools, to devise a system of Medical Instruction. Upon the adoption of the system, such schools as conform to it, shall be entitled to representation, *and such schools only.* This Committee has for its head, Dr. JAS. R. WOOD, one of the Surgeons to Bellevue Hospital, and one of the most enthusiastic clinical teachers in New York; Dr. JOHN WATSON, for a long time a clinical teacher in the New York Hospital, is also a member; while three other distinguished gentlemen, representing the extreme portions of the Union, make up the balance. There is little doubt that the Committee, in its Report, will take high ground in favor of clinical teaching, making it one of the *requirements* for graduation; and it is highly probable that the Association will adopt the Report, making it the law, compliance with which, alone, shall entitle schools to a representation.

The venerable Dr. JOHN W. FRANCIS, of New York, in his Address, introductory to the Course of Clinical Instruction given in Bellevue Hospital during the past winter, says:

> "Put it down, therefore, as a medical axiom, as firmly fixed as a mathematical principle, that *observation* is equally essential for the acquisition of medical science and for the practical exercise of the art itself; *that you might as well presume to become the successful navigator by sojourning in a sylvan retreat, as to become the physician or surgeon without clinical instruction.*"

Such, then, being the value of clinical advantages, and such being the sentiment of the Profession in reference thereto, the question presents itself, — Shall the University of Michigan furnish them, and make them a *requisite* for graduation? With her reputation to sustain, as a *University*

maintaining a high grade of education, can she refuse to place herself in the foremost rank in *all* her departments? With Rush Medical College at Chicago, possessed of the abilities and disposition to comply with any standard which the National Association may elevate, shall we *wait* for her example?

Prof. DAVIS, in the March No. of the *Chicago Medical Journal*, says:

> "Access to the wards of a well regulated hospital must constitute a necessary appendage to every Medical College; and attendance on, at least, one course of clinical instruction, a *requisite* for graduation."

This indicates the disposition of our neighbors; and shall the *endowed* University of Michigan, *offering free education*, be backward in taking equally high ground? We sincerely trust not. We are anxious to have the Medical Department afford as full and complete educational facilities as, and demand a higher order of attainment than, any other Medical School in the country; and, in consideration of her ability—afforded by her endowment—to accomplish this end, we can not but regard it as *her sacred duty to do so.*

The question, then, next suggested, is: Can the Medical Department attain this high ground in its present locality? There can be but one answer: *Never.* At present we occupy only a secondary position; and no increase of the Faculty, no zeal which may actuate its members, and no labor that they can perform, will ever succeed in elevating it above its present grade, until *full* and *extended* Clinical Instruction be superadded to its curriculum. But let the transfer to Detroit be made, where a rich College Medical and Surgical Clinic can be enjoyed, Hospitals be opened to candidates for the Doctor's degree, *one year's attendance upon which shall be a* CONDITION *of graduation*, and the University of Michigan may realize in its Medical Department a character *second to none in the country.*

Viewing this subject from a different stand-point, as a question of economy, it will be found, that with a location in Detroit, the elevated and commanding position of the Medical Department which we have urged, *can be maintained by the same expenditure of the University Fund* that is now required to carry on the school in Ann Arbor. Shall we then content ourselves with a secondary rank, when the same pecuniary expenditure will enable us to attain a proud position in the first rank? By so doing, are we faithful stewards? Can we ask for further appropriations, from either the State or General Government, without fearing that the question may be propounded: Are you now deriving the greatest amount of benefit from your present means? Are you furnishing to the State men fully qualified, *safely* to assume the charge of human life, when invaded by disease and threatened by death? or must these your graduates derive their *first* experience from patients *who look to them alone* for aid? Have they been enabled to *observe* the phenomena of disease and the effects of remedies, under your guidance and direction, until they are familiar with both? or do you turn them out upon the world, armed with *theories* alone? What answer could we make these interrogatories? Alas! what answer!

With a location in Detroit, we could make the conditions of graduation such, that we could reply: We have used the talent committed to our trust to the best advantage; the men who bear the Doctor's degree from the University of Michigan, are not only versed in theory, but they are also familiar with the phases of disease, and the application and effects of remedies; they possess a greater amount of experience than will usually be obtained in the first five years of practice: such is the return which we make to the State.

The simple question for the Regents to decide is: How will *they* enable the Medical Faculty to answer the above questions? Shall the Medical Department take its place among the first-class Medical Schools of our country, or not?

We are confident that whatever their present decision, *time* will furnish an affirmative answer. G.

The Phites vs. Phates.

Dr. CHURCHILL'S assertion, that, in the *Hypophosphites*, he has found a specific for Tuberculosis, needs the corroborating evidence of a greater number of cures than those which he parades as convincing proofs of their value. Like many other novelties in Pharmacy, their introduction into therapeutical use as standard remedies may prove an unsuccessful *fight* against *fate*, — the *fate* to which such are too often consigned — obscurity. Yet it is to be hoped that there is *something* in these salts, in which phosphorus figures so largely, as remedies for that scourge of the human race, Consumption.

The fact that combinations of phosphorus with the alkaline bases have enjoyed considerable reputation, for a few years back, as adjuncts to other remedies, in Tuberculosis has recently led to the employment of compounds of the same bases, with lower oxides of phosphorus.

Now, hypophosphorus acid consisting of one equivalent each of oxygen and phosphorus, is the lowest oxide of the latter element known, save one, and the lowest which, in itself or its salts, can be made available in medicine. Its salts, termed *Hypophosphites*, are very soluble in ordinary menstruæ, and in the presence of oxidizing agents are readily decomposed, producing *Phosphates*. The lime-salt of hypophosphorus acid may therefore be valuable in affording the phosphate of lime, by decomposition in the economy, and in that recent or nascent condition in which only is it readily and quickly absorbed.

That these salts furnish phosphorus to the system in an uncombined state, by decomposition, may be questioned, when it is seen that they pass into salts of a higher oxide of that

element with facility; however, as the chemical powers of the vital organism are yet but imperfectly understood, it is well to confirm or refute the value placed upon these new remedies, by direct experiment. We would, then, commend them for that purpose to all who are interested in the introduction of new agents into our already extended materia medica.

The formulæ for preparing the hypophosphites will be found on another page.

It will be seen, by referring to the list of chemicals of HENNELL STEVENS & Co., that they are now manufacturing them. We are indebted to those gentlemen for specimens of the Hypophosphites of Soda, Ammonia, and Potassa, in crystalline form, and for the lime-salt in granular form. Accompanying these, was a specimen of hydrated-hypophosphorus acid, which it is likely may come into use, for the same purposes as phosphoric acid is now employed. F. S.

Brown-Sequard and the Doctrine of Reflex-Secretory Action.

The above-named gentlemen, in a late No. of the *New York Journal of Medicine*, manifests an utter obliviousness of the *real* points involved in the reflex-secretory doctrine.

We confess ourself surprised that any medical gentleman should so confound "*known facts*" and the *scientific principles* which are deduced therefrom. It has probably been known, since the days of ADAM, that a foreign body in contact with the conjunctiva, would excite the action of the lachrymal gland; but will any one pretend that the *principle*, that the impression made by this body, is conveyed inward to a nervous centre, producing there a cell-change, the influence of which is reflected outward along conducting nerve-fibre tothe lachrymal gland, and also to the orbicularis muscle, producing in the one that cell-change which is *secretion*, and in the other that cell-change which constitutes *muscular contraction*, and that the difference in result depends *alone* upon

the difference of the *mechanism* of the organs acted upon? This distinction, between the *naked fact* and its beautiful *interpretation*, BROWN-SEQUARD seems not to have made. In proof, we quote:

"Much has been said lately of disturbances of nutrition and secretion, but there is not a great deal of novelty in what has been said, as may be seen by those who will read a little old book, which contains a *great many* FACTS of this kind; written by Dr. H. J. REGA, a Dutch Physician, and published in 1721."

It is very true that *facts* of this nature are, and have been, universally known and recognized, not only by Dr. REGA and BUSCHÆRT (whom B.-S. also quotes), but by *all* physicians and medical writers since HIPPOCRATES. Will BROWN-SEQUARD, or any other man, say that a knowledge of these facts constitutes a *scientific principle?* Science is *classified* knowledge—facts *digested*, and *principles evolved therefrom*. Isolated, or even aggregated phenomena, are unprolific and valueless; it is only when vitalized by thought, and arranged in order, that they are worthy of the name, or bear the fruits of knowledge. The *facts* upon which the "excito-*motory* system" of the lamented HALL is founded, are also to be found in an infinity of books (even Dutch books), before 1721; but now that HALL is dead, are we to witness an attack upon his fame, which, living, he so completely defended? For the honor of American Journalism, we trust not.

But, continues BROWN-SEQUARD:

"Concerning the *theory* of reflex secretions, there has been, for some time, a somewhat strange discussion of priority between Dr. CAMPBELL, of Georgia, and the late Dr. MARSHALL HALL."

It strikes us that there was hardly a "*discussion*" between the above-named gentlemen. Dr. HALL announced what he deemed a discovery; Prof. CAMPBELL claimed priority, and Dr. HALL gracefully yielded the palm. Dr. ALLEN then claimed, through the pages of the "*Independent*," priority

in *teaching* the same doctrines, although Dr. CAMPBELL had first "printed" them; he also carried his generalizations further. Prof. PAINE then claimed priority over all, and cited his doctrines of "*vitalism*" and "*sympathy*"!!

But let us follow BROWN-SEQUARD further. Of Drs. HALL and CAMPBELL, he says:

"*Not either of them had any right of priority in this respect*, but still more, the questions concerning the reflex secretions, and the reflex changes in nutrition, had been carried much further than the point that the two able physicians thought they had been first to establish."

In proof whereof, he adduces HENLE, LUDWIG, FUNKE, and BROWN-SEQUARD. How "much further" these gentlemen have carried this investigation may be guessed at by quoting from the one last named:

"Whether, in these reflex phenomena of nutrition and secretion, the centrifugal nerves act by producing a *constriction of the blood-vessels*, or by a special *electric* or *nervous influence?*"

The *answer* to this question, may be found in Dr. ALLEN'S "Mechanism of Nervous Action," and is not merely in explanation of pathological, but also of physiological phenomena. It involves no occult vital property of *contractility*, or still more recondite "*special* electric or nervous influence"; for the resolution of the question, by assuming either of the above positions, would leave the matter just as inexplicable as ever. Will BROWN-SEQUARD, or any of the authors to whom he has referred, claim that the blood-vessels are the *immediate* agents of nutrition or secretion? Will they claim that a "constriction" or relaxation "of the blood-vessels," whether induced "by a *special* electric or nervous influence" or not, will throw any light upon the real mechanism of muscular, glandular, textural, or nervous change? Do the blood-vessels *squeeze* out secretions and sensations by their "constriction"? (!)

It is a pretty well established fact in physiology, that the CELLS are the immediate agents of *all* changes in the animal economy. According to Dr. ALLEN, the real point in the question of nervous action, is the relation of nerve-fibre to the cells and fluids at its extremities. The nerve-fibre conducts the influence of a change at one of its extremities to the other, and there the effect may be solely manifested; or, by being reflected through the medium of other nerve-fibre, its effect may be transmitted to a tertiary series of cells, muscular, glandular, or nervous, the final action depending upon the mechanism of the structure reached and operated upon. The true physiology of the nervous system, and its influence upon all other tissues, is only to be found by a careful study of the cells and cell-modifying influences. Why will physiologists continue to create phantoms of "constricted blood-vessels" and "special nervous influences," and waste their powers in chasing them through all the phases of a metaphysical chaos? The very condition of "constriction" involves a prior change, by which it is effected. G.

Meteorological Register.

Dr. L. S. HORTON, of the United States Marine Hospital in this city, promises us, for our June issue, a full report for the month of April. The Hospital is now supplied with the full complement of instruments needed for these observations, of which, until quite recently, it had been somewhat deficient.

Selected Articles.

Non-Mercurial Treatment of Syphilitic and other Cutaneous Diseases.*

By William M. Cornell, M.D.

At a former meeting of this Society, I read a paper upon the comparative merits of *arsenic* and *stillingia* in diseases of the skin, giving the preference to the latter.

I now purpose to show that, in the whole class of cutaneous, and other diseases arising from *syphilitic taint*, other remedies are more certain in the removal of the difficulty, and much more safe for the patient, than mercury.

Mercury, in some of its forms, has been considered *the specific* for this disease in all its stages; though it has generally been admitted, that it was eradicated before this mineral was employed as a medicine, and has often been since, without its use. Happily, both for the credit of the doctor, and the welfare of the patient, the old method of *salivation* is no longer resorted to, even by those who still believe that mercury is necessary in the treatment and cure of the disease in some of its forms.

Having had some experience, during the last twelve years, in treating *diseases of the skin*, whether they had originated from this peculiar malady, or had sprung from other causes, I wish to state my opinion, and the arguments upon which it is founded.

I have used mercurial preparations, and seen them used, in all their forms, in the various stages of the disease above named, and I have yet to find *a solitary case, of a chronic form*, which has been removed, or alleviated even, by the drug now in question, save only in one form hereafter to be named. I look upon the *stillingia* (as recommended in my former paper) as the best vegetable alterative in this whole class of diseases, in their *chronic* form; and I have great confidence that the physician who perseveres in its use will find his patients improve, and that much more generally than under the use of arsenic or mercury.

* Read before the Suffolk District Medical Society, February 27th, 1858, and communicated to the *Boston Medical and Surgical Journal.*

Another medicine in these cases, which has proved highly satisfactory in my hands, is the *nitric acid*, given in doses of ten drops three times a day. Thirty years ago this medicine was given much more frequently, in debilitated constitutions, than it is at present. In the debility attendant upon these cases, the following is often a serviceable remedy:

℞ Com. Tinct. Bark . . . . ℥ ij.
Sulph. Quinia . . . . . gr. xij.
Muriatic Acid . . . . . gtt. xx.
M. Dose, a teaspoonful, *ter die.*

The old oxygenated muriatic acid was much employed in these diseases many years ago. It probably forms the basis of a preparation, now sold under the name of "*Oxygenated Bitters*," and is a valuable medicine when it *hits the case*, which it probably does not once in fifty, when purchased and taken at random.

I have found the following useful in some of these old broken-down constitutions:

℞ Ioduret of Iron . . . . . ʒ iss.
Castile Soap . . . . . ʒ iss.
Alkaline Ext. Gentian . . . . ʒ j.
M. Ft. pil. No. xxx. Dose, one pill night and morning.

The *diet drink*, named in my former paper, is one of the best medicines for purifying the blood. For the same purpose, the following recipe furnishes an excellent alterative:

℞ Iodide of Potassium . . . . ʒ j.
Iodine . . . . . gr. ij.
Mucilage of Acacia . . . . ℥ iij.
Hydrocyanic Acid . . . . gtt. xij.
Aqua pura . . . . . ℥ v.
Sach. . . . . ℥ ss.
M. Dose, a tablespoonful twice a day, in a wineglassful of water.

The *bromide* may be substituted for the iodide of potassium, as it is equally efficacious, though it requires a longer time to produce its beneficial effects. The only advantage possessed by the latter is, it is cheaper.

If mercury is ever to be employed as an alterative, in these forms of constitutional taint manifested by cutaneous eruptions, the most efficacious form in which I have used it is that of Dr. Channing, named in the U. S. Dispensatory, page 1340, of the edition of 1851, under the name of *iodo-hydrargyrate of potassium.* "The average dose of this remedy is stated by Dr. C. to be one twelfth of a grain three times a day; but, in peculiar

constitutions, not more than the forty-eighth, ninety-sixth, or the two hundredth of a grain daily, can be borne." The testimony of many physicians is much in favor of this medicine as an alterative.

I am by no means alone as respects treating this whole class of diseases without mercury. In the *New York Journal of Medicine and Collateral Sciences*, I find the following remarks, which I consider very judicious and sensible. They are from the pen of Dr. Scott, and relate to the non-mercurial treatment of Syphilis: "Thirty years since," he says, "there was no doctrine in the profession which was considered to be so well founded as the treatment of Syphilis by mercury. In England, none presumed to differ from the opinion of John Hunter, that the disease was incurable without mercury; and not only that the medicine was required to remove the disease itself, but that to cure the disposition to it, and to secure the constitution against its ravages, an extended course of mercury was required. Sir Benjamin Brodie still retains this opinion, and he (Dr. Scott) would not have called the attention of the Society to this subject, had he not observed, in the lately published essays of Sir Benjamin, some remarks, which, from so high an authority, appeared to him calculated to lead an injurious line of practice. Every now and then, a dissenting voice had been raised against the mercurial doctrine, but the Profession, in general, adhered to the opinion of John Hunter."

Dr. Scott's own experience is related as follows:—"In 1813, he was placed, for a short time, in Columbo, in charge of the venereal wards, in which the cases were all treated with mercury. Many of them, he found, were well in a few days; others in five or six, others in three weeks; periods too short to warrant the conclusion that they were venereal. They were therefore set down as cases of pseudo-Syphilis. The number of these cases increased with the field of experience; and, in a few years, the use of mercury was gradually resigned in almost every case of local disease. The *secondary* symptoms were few and slight, and never required an extended course of mercury. The same plan of treatment was adopted by them, and in a few years Dr. Scott, then garrison surgeon at Point de Galle, entirely abandoned the use of mercury. In 1818 and 1819, Dr. Scott became acquainted with the results of the investigations which had been carried on in England, and, since that time, had abandoned the use of mercury, as a specific. He had found many cases in which it was required as an alterative. Dr. S. stated that he considered every case of local disease curable without mercury; and that, under such treatment, the secondary symptoms, when they did occur, were slight, and easily managed. Dr. S., in the course of his remarks, described the miserable victims who were constantly found in military hospitals, at the time mercury was used, affected by extensive ulcerations, nodes, etc., who furnished a considerable number of the invalids, and many deaths. Since mercury was abandoned, such cases had disappeared from the hospitals."

Dr. MACLAGAN expressed his satisfaction that Dr. SCOTT coincided in the views he (Dr. M.) had long entertained on this subject. His confidence in mercury, as a specific in Syphilis, had been first shaken when, after he was a graduate in medicine, he attended, for some months, the Lock Hospital, in London, under Mr. JOHN PEARSON. There, every variety of form in the disease presented itself; but, in very many cases, seemed to be aggravated, rather than benefited, by the mercurial course. Dr. PEARSON often expressed doubts whether, in many constitutions, the use of mercury had not been more injurious than beneficial. Dr. MACLAGAN had seen Portuguese soldiers cured of the primary form of the disease by topical remedies alone, or merely by the addition of Lisbon diet and drinks, and, some times, without either. He saw none of those cases of secondary symptoms in an aggravated form, to which his late lamented friend, Dr. FERGUSON, has alluded in his paper to the Transactions of the Medical and Chirurgical Society of London. Since 1818, Dr. MACLAGAN, with a few exceptions, where the patient's scruples afforded a full explanation, demanding its modified use, had adhered to the non-mercurial plan of treatment, both in dispensary and private practice; and, in no instance, has he had reason to regret it. Many, who were then so treated, are his patients still; fathers of families, enjoying, as well as their offspring, excellent health, and without the occurrence, in the period of thirty years, of any secondary symptoms of an aggravated form. On the other hand, he has seen too many cases where the use of mercury, to its full extent, has been productive of constitutional injury of the most serious character.

Dr. BENNET said, "That reports had been made to the Governments of France, Germany, and Sweden, of 80,000 cases, treated upon the non-mercurial plan, and their general results were quite in accordance with the experience of Dr. SCOTT."

I have related the experience of these men upon a point on which I have not myself had an extensive practice, namely, the *primary* stages of this disease. My experience has been chiefly in those cases of a chronic form, manifesting the disease in what are called secondary or tertiary symptoms, always arising from a *constitutional taint*. Dealing with chronic diseases of various forms, especially with those of the *skin*, I have seen almost all kinds of such cases; and I have known the most aggravated forms of chronic eruptions, upon the head, face, and other portions of the body, wholly removed, and permanently to disappear, under a treatment without a grain of mercury. In some of these cases mercury had been employed, even to salivation, without any obvious benefit. For a dozen years I have closely watched these peculiarities of skin diseases, and am satisfied that there is a better, safer, and more eligible method of treating them than by employing either *mercury* or *arsenic*. If this be so (and I think it can be proved to be), I ask, are we justified in using heroic remedies, which may produce serious injury to our patients, without removing

the original disease? Would not their disuse redound to our credit—would it not be another triumph added to the success of our Profession, and does not humanity demand a discontinuance of medicines which are really unnecessary, and often productive of the gravest injury to those who entrust their health and life to our hands?

I am happy to corroborate these views by the following quotation from the *London Lancet* of June 27th, 1857: "In a recent visit to the Royal Free Hospital, where a number and variety of Syphilitic cases are to be met with, especially of the secondary eruptions, we find they are treated by the administration of stomachic and tonic remedies and good diet, conjoined with the following formula, viz.:

℞ Sulphur . . . . . 3j.
Sulphuret of Antimony and Nitrate of Potassa . . . āā gr. v.

Mixed into a powder, half of which is given night and morning, and persevered in till the eruption disappears, the health is improved, and a cure established. Dr. MARSDEN has employed this mode of treatment for twenty-seven years, in thousands of cases, and he observes that not one in a hundred instances has he known to return with constitutional symptoms."

[*Boston Medical and Surgical Journal.*

On the Proximate Cause and Specific Remedy of Tuberculosis.*

BY JOHN FRANCIS CHURCHILL, M. D.

THE total number of cases of phthisis treated by me amounts to thirty-five. All were in either the second or third stages of the complaint; that is, they had either softened tubercles or cavities in the lungs. Of these, nine recovered completely, the physical signs of the disease disappearing altogether in eight out of that number; eleven improved considerably, and fourteen died; one still remains under treatment.

I believe that the results, of which the preceding is a summary, taken in connection with the considerations I have set forth at length in the paper now in the hands of your Hon. Secretary, will be found to justify the following conclusions:—

The proximate cause, or at all events an essential condition of the tubercular diathesis, is the decrease in the system, of the phosphorus which it contains in an oxygenizable state.

* Abstract of a paper laid before the Academy of Medicine, of Paris, on the 21st of July, 1857.

The specific remedy of the disease consists in the use of a preparation of phosphorus, uniting the two conditions, of being in such a state that it may be directly assimilated, and at the same time at the lowest possible degree of oxydation.

The hypophosphites of soda and lime are the combinations which hitherto seem to best fulfil these two requisites. They may be given in doses varying from ten grains to one drachm in the twenty-four hours. The highest dose which I have been in the habit of giving to adults is twenty grains.

The effect of these salts npon the tubercular diathesis is immediate, all the general symptoms of the disease disappearing with a rapidity which is really marvellous.

If the pathological deposit produced by the dyscrasy is of recent formation, if softening has only just set in, and does not proceed too rapidly, the tubercles are absorbed and disappear. When the deposit has existed for a certain time, when the softening has attained a certain degree, it sometimes continues in spite of the treatment; and the issue of the disease then depends upon the anatomical condition of the local lesion, on its extent, and upon the existence or the non-existence of complications. I have made numerous attempts to modify the local condition of the lungs by the inhalation of different substances, but have never obtained any satisfactory result independent of what was to be attributed to the specific treatment. The hypophosphites of soda and lime are certain prophylactics against tubercular disease.

The physiological effects which I have observed to be produced by the use of the hypophosphites of soda, lime, potash, and ammonia, show these preparations to have a two-fold action. On the one hand, they increase the principle, whatever that may be, which constitutes nervous force; and on the other, they are the most powerful of hæmatogens, being infinitely superior to all medicines of that class hitherto known. They seem to possess in the highest degree all the therapeutical properties formerly attributed by different observers to phosphorus itself, without any of the danger which attends the use of that substance, and which has caused it to be almost forgotten as a medical agent. The different preparations of hypophosphorus acid will undoubtedly occupy one of the most important places in the materia medica.

The Academy resolved that the paper be referred to a committee, consisting of MM. Louis, Trousseau, and Bouilland.

[*Dublin Hospital Gazette.*

Pharmaceutical and Miscellany.

Hypophosphites.

The following we take from a paper upon the Hypophosphites, by Prof. Proctor, in the *American Journal of Pharmacy* for March:

Hypophosphite of Lime.

Take of	Lime, recently burned	4 lbs. av.
	Phosphorus	1 lb. "
	Water	5 gals.

Slake the lime with a gallon of the water, put the remainder in a deep boiler, and as soon as it boils add the slaked lime, and mix to a uniform milk. The phosphorus is now added, and the boiling is kept up constantly, adding hot water from time to time, so as to preserve the measure as nearly as may be, until it is all oxydized and combined, and the strong odor of the gas has disappeared. The mixture froths much, and but little of the phosphorus reaches the surface. Then filter the solution through close muslin, wash out that portion retained by the calcareous residue with water, and evaporate the filtrate till reduced to six pints. The concentrated liquid should now re-filtered to remove a portion of carbonate of lime which has resulted from the action of the air on the lime in solution, and again evaporated till a pellicle forms, when it may be crystalized by standing in the drying-room, or the heat may be continued with stirring till the salt granulates, when it should be introduced into bottles.

Hypophosphite of lime is a white salt with a pearly margarin-like lustre, and crystalizes in flattened prisms. Its composition, according to Wurtz, is $CaO,\frac{1}{2}2HO\,PO$, the water being essential to the salt. It is soluble in six parts of cold water, and in not much less of boiling water; it is soluble slightly in diluted alcohol, but insoluble in alcohol sp. gr. ·835.

Hypophosphite of Soda

Is prepared by double decomposition between hypophosphite of lime and crystalized carbonate of soda.

Take of	Hypophosphite of lime	6 oz.
	Crystallized carbonate of soda . .	10 oz.
	Water, a sufficient quantity.	

Dissolve the hypophosphite in four pints of water, and the carbonate in a pint and a half, mix the solutions, pour the mixture on a filter, and lixiviate the precipitate of carbonate of lime, after draining, with water, till the filtrate measures six pints. Evaporate this liquid carefully till a pellicle forms, and then stir constantly, continuing the heat till it granu-

lates. In this state the salt is pure enough for medical use; but if desired in crystals, treat the granulated salt with alcohol sp. gr. ·835, evaporate the solution till syrupy, and set it by in a warm place to crystallize.

Hypophosphite of soda crystallizes in rectangular tables with a pearly lustre, is quite soluble in water and in ordinary alcohol, and deliquesces when exposed to the air. Its composition is NO–¦–2HO,PO.

Hypophosphite of Potassa

Is prepared by the same process as that given above for the soda salt, substituting 5¾ ounces of granulated *carbonate of potassa*, in place of 10 ounces of crystallized carbonate of soda, and using half a pint instead of a pint and a half of water to dissolve it.

Hypophosphite of potassa is a white, opaque, deliquescent salt, very soluble in water and alcohol. Its greater tendency to absorb moisture renders it less eligible for prescription than the soda salt. Its composition is KO–¦–2HO,PO.

Hypophosphite of Ammonia

Is prepared from hypophosphite of lime and sulphate or carbonate of ammonia.

Take of	Hypophosphite of lime	6 oz.
	Sesqui-carbonate of ammonia (translucent)	7·23 oz.
	Water, a sufficient quantity.	

Dissolve the lime salt in four pints of water, and the ammonia salt in two pints of water, mix the solutions, drain the resulting carbonate of lime, and wash out the retained solution with water. The filtrate should then be evaporated carefully to dryness, then dissolved in alcohol, filtered, evaporated and crystallized.

This salt is deliquescent in the air, very soluble in alcohol and water, and when carefully heated evolves ammonia, and leaves hydrated hypophosphorus acid. The composition of this salt is NH^3–¦–2HO,PO.

Hypophosphite of Sesquioxide of Iron.

This salt may be obtained in the form of a white gelatinous hydrate, by precipitating a solution of hypophosphite of soda or ammonia with one of sesqui-sulphate of iron. The precipitate should be well washed with water and dried at a moderate temperature. It is necessary to avoid using a hypophosphite containing any alkaline carbonate or the precipitate will be contaminated with free sesquioxide. Thus prepared, this salt is a white, amorphus, tasteless powder, like the pyrophosphate, soluble in hydrochloric acid, and in free hypophosphorous acid.

Hypophosphorous Acid.

So far as we are aware, this acid has not been employed, in a free state, by Dr. Churchill, but it is highly probable, that it may come into use, should the favorable results claimed for its salts be substantiated by new observations. Any claims which phosphoric acid may possess as an agent to supply the wastes of phosphorus and phosphates in the human economy, will be more than equaled by this acid. Hypophosphate of baryta is the salt which is most eligible for the preparation of this acid, but it is more convenient to prepare it from the lime salt, viz: —

Take of	Hypophosphite of lime . . .	480 grains.
	Crystallized Oxalic acid . . .	350 grains.
	Distilled water	9 fluid oz.

Dissolve the hypophosphite of lime in six ounces of the water and the acid in the remainder, with the aid of heat, mix the solutions, pour the mixture on a white paper filter, and when the liquid has passed, add distilled water carefully, till it measures ten fluid ounces, and evaporate this to 8½ fluid ounces.

The solution thus prepared contains about ten per cent. of terhydrated hypophosphorus acid ($HO-\frac{1}{4}-2HO,PO$), a teaspoonful representing 6 grains of the acid, which contains 2¼ grains of phosphorus. The dose of this acid solution will probably vary from ten minims to a teaspoonful.

It is proposed to give several forms in which the hypophosphites may be conveniently administered, and a few hints to the physician in reference to prescribing them.

The soluble salts of mercury and silver are reduced by contact with the hypophosphites. All soluble sulphates and carbonates are incompatible with the lime salt, and should not be associated with it in prescriptions, if phosphate of lime is indicated in the case. The iron salt when dissolved by excess of acid, is colored black by gallotannic acid and drugs containing it, but is not blackened by the tannin of cinchona, catechu and krameria hence any preparation containing it may be associated with Peruvian bark. The hypophosphites of soda, potassa, and ammonia are more or less deliquescent, and when prescribed in powder it should be with proper precautions to avoid moisture, as by association with considerable excess of sugar of milk. The lime salt may be mixed with either this sugar or ordinary sugar. None of these salts are soluble in cod-liver oil; and if given with it, they should be dissolved in syrup, and mixed by agitation. Where lactin and glycerin are indicated in the treatment of phthisis or dyspepsia, any of these salts may be very elegantly associated in the form of syrup.

Syrup of Hypophosphite of Lime.

Take of Hypophosphite of lime, an ounce.
Water, nine and a half fluid ounces.
White sugar, twelve ounces.
Fluid extract of vanilla, half a fluid ounce.

Dissolve the salt in the water, filter, add the sugar, dissolve by aid of heat and add the vanilla. The dose is from a teaspoonful (3½ grs.) to a tablespoonful (14 grs.), according to the circumstances of the case, three times a day.

Compound Syrup of Hypophosphites.

The following formula has been made in view of the double purpose to which these salts are directed by Dr. Churchill, viz.: the increase of nerve force, and the elevation of the tone of the several functions concerned in alimentation and nutrition; and will afford an agreeable means of testing practically their merit. The iron salt is presented in a form well adapted to entering the circulation, whilst the acid, besides exerting its solvent power, adds to the agreeable taste of the preparation.

Take of Hypophosphite of lime	256	grains.
Hypophosphite of soda	192	"
Hypophosphite of potassa	128	"
Hypophosphite of iron* (recently precipitated)	96	"
Hypophosphorus acid solution . . q. s. or	240	"

*This quantity, 96 grains, of hypophosphite of iron, is obtained when 128 grains of hypophosite of soda, dissolved in two ounces of water, is decomposed with a slight excess of solution of persulphate of iron, and the white precipitate well washed on a filter with water.

White sugar	12 ounces.
Extract of vanilla	½ ounce.
Water, a sufficient quantity.	

Dissolve the salts of lime, soda, and potassa, in six ounces of water, put the iron salt in a mortar, and gradually add solution of hypophosphorus acid till it is dissolved; to this add the solution of the other salts after it has been rendered slightly acidulous with the same acid, and then water, till the whole measures 9 fluid ounces. Dissolve in this the sugar, with heat, and flavor with the vanilla. Without flavoring, this syrup is not unpleasant, being slightly saline, and not at all ferruginous. Any other flavoring may be used, as orange peel, orange flower, or ginger. It is also suggested to physicians that glycerin may be used, wholly or partially, in place of sugar when indicated, six ounces and a half of glycerin being substituted for twelve ounces of sugar. The object of acidulating the saline solution is to decompose any alkaline carbonates which may be present, and which have been noticed by the writer in some of the commercial soda salt. The dose of this preparation is a teaspoonful three or four times a day. A teaspoonful contains 2 grains of the lime salt, 1½ of the soda salt, 1 of the potassa salt, and ¾ of a grain of the iron salt, besides a little hypophosphorus acid.

Confection of Peruvian Bark.

Take of Powdered Peruvian (Calisaya) Bark .	1 ounce.
Conserve of Senna	1 ounce.
Powdered Muriate of Ammonia . .	30 grains.
Syrup Orange Peel	2 fluid ounces.

Mix. *Dose*, size of a shell bark three times a day.

The above is recommended by Dr. Gloninger, as an antiperiodic. Being pleasant, it sits well upon the stomach, and does not produce cinchonism. The formula is that of F. L. John, Pharmaceutist, Philadelphia, given in the *American Journal Pharmacy*, for March, 1858.

Glycerine and Starch proposed as a basis for Ointments, in place of Oils or Fats.

Mr. G. F. Schacht proposes the employment of a mixture of Glycerine with Starch (in the proportion of one fluid ounce of the former to seventy grains of the latter), heated gradually to 240° F., as an excipient with which to form Ointments analogous to those of the Pharmacopœia. The most of them are prepared precisely as those of the Standard, by simple mixture of the ingredients with this "Plasma," as it is termed; for the rest, especial formulæ are given. Thus,

"Plasma-Hydrargyri" is made by mixing fourteen drachms of Starch with six fluid drachms of Glycerine, adding twelve ounces of Mercury, and stirring till the globules disappear; then add eleven and one-fourth ounces of Glycerine, and heat to 240° F., constantly stirring.

"Plasma-Hydrargyri Nitratis" is made by triturating one drachm of terbasic Nitrate of Mercury with one ounce of the simple Plasma.

The following Comp. Plasma is also given; which is being employed in certain diseases of the skin:

"PLASMA-PETROLEI."—Rub seventy grains of Starch with one fluid drachm of Petroleum, till quite smooth; add one fluid ounce of Glycerine; heat gradually to 240° F., as above.

Iodine being incompatible with Starch, the "UNG. IODINII" can not be made with the excipient.

[*From Mr. Schacht's paper in American Druggists' Circular, for April*, 1858.

Tasteless Febrifuge Powder for Children.

Take of Pure Quinia (not sulphate) . . . 45 grains.
Sugar . . . . . 2½ drachms.
Triturate with care in a porcelain morter, and divide into eight powders.

To be given in a little preserve, as follows:

One each day for two days, then a day of rest; the following day a packet, then two days of rest; then another packet, and three days rest; and so on.

Tannate of Quinia can be substituted for the pure Quinia.

Compound Syrup of Iodohydrargyrate of Potassium and Iron.

Mr. YOUNG, Pharmaceutist, offers, in the March No. of the *American Journal of Pharmacy*, a formula for the above, which is employed in Secondary Syphilis, combined with Scrofula.

R.	Iodine	grs.	64
	Iron filings	"	32
	Red Iodide of Mercury	"	2
	Iodide of Potassium	"	1½
	Sugar	oz.	3½ av.
	Water	"	2

Mix the iodine with three drachms of the water and add the iron; when combined filter into the syrup (which is made with an ounce and a half of the water), the red iodide of mercury and the iodide of potassium are triturated with the remaining drachm of water and added, the whole to measure four fluid ounces. A little orange-flower water added, makes it very agreeable. The dose recommended is about one teaspoonful, which is equivalent to 1-16th gr. of the red iodide of mercury and 2¾ grs. of the iodide of iron.

Discovery of the Tomb of Hippocrates.

The *Esperance* of Athens states, that near the village or Arnaoutli, not far from Pharsalia, a tomb has just been discovered which has been ascertained to be that of HIPPOCRATES, the great Physician, an inscription clearly

enunciating the fact. In the tomb a gold ring was found, representing a serpent—the symbol of medical art in antiquity—as well as a small gold chain attached to a thin piece of gold, having the appearance of a band for the head. There was also lying with these articles a bronze bust, supposed to be that of HIPPOCRATES himself. These objects, as well as the stone which bears the inscription, were delivered up to HOUSIN PACHA, governor of Thessaly, who at once forwarded them to Constantinople.

[*Southern Med. and Surg. Journal.*

Calisaya Cordial.

We have been in the habit of preparing, for some years, a preparation of Calisaya Bark, after the formula of Prof. LEE, of New York, which, from its pleasant aromatic flavor and freedom from bitter taste, has met with much favor as a tonic and antiperiodic. The formula is here given:

Take of Bruised Calisaya Bark . . .	12 ounces troy.
Carbonate Potassa	1 ounce.
Boiling Water	1½ galls.

Make a decoction, continuing the boiling until the fluid measures one gallon, adding, towards the close, two ounces, each, of bruised orange peel (bitter) and cassia, and one ounce cloves. Express; strain while still warm, and add of refined sugar three pounds. Dissolve, and, when cold, add of French Brandy two pints.

Each pint of this syrupy decoction, or cordial, represents one ounce of Calisaya Bark.

The alkaloids are dissolved more freely, and the bark more thoroughly exhausted by the aid of the carbonate potassa, and exist in solution with but a slight alteration of their natural condition in the bark.

The dose for adults is from half to one wineglassful three times a day.

It is especially applicable as a general tonic for children and feeble persons.

Re-Production of Bones and Joints after their Removal in Cases of Whitlow.

Some time ago Dr. TOLAND, of California, claimed the discovery of this important fact in surgery. In the February No., 1858, of the *Buffalo Medical Journal*, we find, however, that to Professor DUDLEY, of Lexington, Kentucky, is due the credit of having made the discovery, and to Professor HAMILTON, of Buffalo, N. Y., is due the credit of having first promulgated the idea through the medium of the medical journals. Doubtless we shall soon have some more discoveries in the field. But this is all right. We say, "honor to whom honor is due."

During five years' practice in the country, it was our lot to encunter a great number of these cases of paronychia among the plantation negroes. Indeed, strange as the idea may seem to some, we are sure of having witnessed the disease once in an *epidemic* form. Throughout an entire neigh-

borhood the disease was strictly prevalent, and we can now call to mind several negroes who lost the first phalanx of two or more fingers in one season. Of course the vast majority of the cases lost the first phalanx, as every overseer and old woman in the country imagine themselves fully competent to treat, or rather *cure*, whitlow or bone felon. When the doctor is called in, the bone is loosened from its attachments, and he has no alternative but to remove it. When we first encountered the cases, such was the degree of the disease of the surrounding tissues, we amputated the end of the finger; but observation soon taught us that this procedure materially diminished the value of the cotton-picker, as the finger was not only considerably shortened, but the stump, unprotected by the nail, was continually subject to injury. We then resorted to the plan of picking out the dead bone, and the only deterioration the hand suffered was comparatively slight shortening of the finger. In no instance have we ever seen any thing approaching re-production of the bone—and this notwithstanding we have carefully supported the finger by means of splints and bandages.

[*New Orleans Medical News and Hospital Gazette.*

Such has also been our experience. We have never seen any re-production of bone where the whole thickness of the phalange has been lost. A dense deposit of new material has, however, given considerable firmness to the member.

The Medical Department of the University.

During the past session, one hundred and thirty-seven matriculants were in attendance upon the lectures of this institution. Of these, twenty-seven were successful candidates for the Doctor's degree; their names were published in the last No. of this Journal. The Address to the Graduates, by Dr. Beech, of Coldwater, we publish in the present issue. It is an exceedingly pleasing production.

The announcement of the next Course will be issued at an early day. Any additional information relative to the school may be obtained by addressing, either Prof. Gunn, *Dean*, or Prof. Palmer, *Secretary*, at Detroit.

Savannah Journal of Medicine.

The Prospectus of a bi-monthly journal, to be published at Savannah, under the above title, has reached us. It is to be edited by Profs. Harriss, Arnold, and Dr. Sullivan, We hope soon to find the 1st No. upon our table; in the meantime we bid its editors, God-speed.

Medical and Surgical Reporter.

This journal is to be issued hereafter at Philadelphia, by J. W. Bradley, 48 North Fourth Street. Dr. Wm. B. Atkinson of that city is to be associated with Dr. Butler in its editorial management.

THE

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Original Communications.

ART. XIII.—On the Qualitative Analysis of Urine.

BY HENRI ERNI, M. D.

THE composition of Urine, being dependent upon the nature of our food, as also upon the normal or abnormal condition of our organism, must necessarily, more or less, vary in its physical and chemical character.

The normal Urine of man contains usually, in the form of organic compounds, urea, uric and hippuric acids, kreatin and kreatinine, and others (such as coloring and extractive matters, odoriferous products), very imperfectly known. The inorganic ingredients found therein are, phosphates and sulphates of the alkalies and alkaline earths, chloride of sodium, iron, and silicic acid; they comprise, in fact, all the soluble salts of our food.

The solid excrements represent, according to LIEBIG, the incombustible or partially oxydized parts of the food, and correspond to the soot and ashes of a common fire. He

proved, by experiment, that albuminous compounds, when partially oxydized by fusion with potassa, yield, on the subsequent addition of an acid, volatile matters, possessing the peculiar odors which characterize the fæces. That urea is produced by the oxydizing influence of the atmosphere on the blood, has been, of late, beautifully shown by the experiments of BECHAMP, who succeeded in preparing urea from albumen, fibrin, and gluten, when acted upon by oxydizing substances, such as permanganate of potassa.

The acid reaction of healthy Urine is due, according to LIEBIG, to the presence of phosphate of soda (2NaO,HO) PO5 which, dissolving uric and hippuric acids, gives rise to an acid solution.

Fresh Urine, from which the mucus has been filtered off, keeps unaltered for a long time, whilst without this precaution it is speedily decomposed, the mucus acting, according to SCHEERER, as a ferment on the extractive coloring matter, lactic and acetic acids being thereby formed, which increase the acidity of the Urine (acid fermentation). At this time, crystals of uric acid, and often of oxalate of lime, occur in the liquid. After a while, the Urine turns from acid to alkaline; it has become paler, is covered with an iridescent skin, and emits a putrid odor; the urea has been decomposed into carbonate of ammonia (alkaline fermentation). The crystals of uric acid have now disappeared, and in their place minute grains of urate of ammonia will be noticed, as also beautiful crystals of triple-phosphate of magnesia and ammonia.

The following plan for the qualitative analysis of Urine is based on a successive series of simple chemical tests, and its examination under the microscope. It has been compiled from the works of BIRD, LEHMANN, etc., but particularly from NEUBAUER'S "Anleitung zur Analyse des Harns," not yet *translated* into the English language. The illustrations are copied from FUNKE'S "Atlas der Physiologischen Chemie."

Systematic Course for the Qualitative Examination of Urine.

The Urine chosen for examination should be passed into a suitable glass vessel, immediately after rising from bed, the vessel kept closed air-tight, and the contents tested as soon as practicable.

DIVISION A.

§1. We examine the Urine with litmus paper.

a. It tests *acid*, and shows *no* sediment: pass over to §2.

b. It is acid and turbid, or contains a sediment; let it subside, decant the clear liquid (or filter if necessary), and examine according to §2. The sediment is examined microscopically (vide Division B.).

c. The Urine reacts neutral or alkaline. In this case, it exhibits generally a sediment; this is examined as directed in B., and the filtered Urine according to §2.

§2. A small quantity of Urine is acidulated with a trace acetic acid (if not previously reacting acid), and heated to ebullition; if a coagulum is produced, which does not disappear by the addition of a drop of nitric acid, albumen is present.

A considerable quantity of Urine (100 cubic centimetres $=\frac{1}{2}$ litre=1 wine pint) is heated to boiling, the coagulum filtered off, the liquor tested according to §3. The coagulum appears, —

a. White; is pure *albumen.*

b. Greenish to brown; contains *bile.* In this case, the Urine is more or less tinged at first, and froths like soap, when shaken (§4).

c. Reddish-brown. We examine for blood; if present, the microscope will reveal corpuscles in their normal shape, or irregular at their margins (fig. 1).

Even if the corpuscles should be entirely destroyed, we

may trace the blood thus: The reddish-brown coagulum above mentioned (*c.*) is dried (it appears then nearly black), pulverized, and extracted with alcohol, which was previously mixed with a little sulphuric acid. The filtered liquid is of a red or brown color, provided blood (hæmatin) be present. Evaporating this liquid again, and igniting the residue, the ashes left contain iron, which is recognized readily thus: We dissolve in dilute chlorohydric acid, treat the solution with a drop of nitric acid, and heat to boiling; when sulpho-cyanide of potassium imparts a red color, whilst ferro-cyanide of potassium (the solution should first be more diluted with water) throws down sparingly a blue precipitate.

FIG. 1.

§ 3. Some 60 cubic centimetres of clear acid Urine, or such as has been separated from the coagulated albumen, are evaporated to syrupy consistency in a water-bath, and the mass extracted with alcohol. The soluble portion is now filtered, whilst the insoluble part, after being repeatedly washed by decantation with alcohol, is left in the evaporating dish for further examination.

The solution is tested thus:

a. One-third of it is evaporated nearly to dryness in a water bath, and then examined for urea. Pure nitric acid, of medium strength, produces a rapid formation of white plumose crystals or scales, consisting of nitrate of urea: hence, by mixing a drop of each liquid together under the microscope rhombic octahedrons or hexagonal plates will be observed (fig. 2).

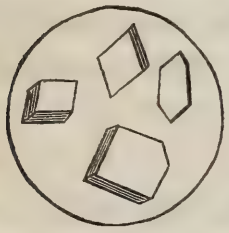

FIG. 2.

The crystals of oxalate of urea formed under the same circumstances are similar in shape (fig. 3).

b. The other two-thirds of the same solution are mixed with oxalic acid, the whole evaporated nearly to dryness, and

the residue left is extracted with ether containing about one-sixth part of alcohol, and the solution evaporated to dryness, the mass digested with a few drops of water, heat applied, the solution filtered, and then left on a watch-glass to spontaneous evaporation, when crystals of hippuric acid appear (fig. 4).

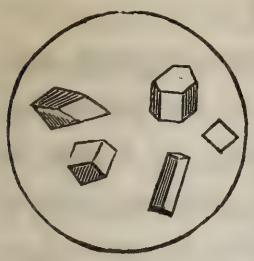

FIG. 3.

Should the Urine contain fat, it will remain on the filter; the etherial residue in *b.* is treated with water, and filtered.

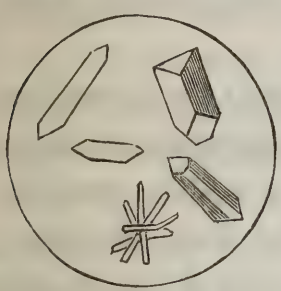

FIG. 4.

The insoluble residue left in the dish (§3) is treated with dilute chlorohydric acid (one pint of acid and six pints of water), and the insoluble part separated by filtering.

aa. This acid solution contains phosphates of the earths and other salts; the former are precipitated by neutralizing the liquid with some ammonia.

bb. The residue on the filter (§3, *c.*) contains mucus, and uric acid; after washing it sufficiently, the filter is pierced with a glass-rod, and the contents washed into a reagent tube, some drops of caustic soda added, heat applied, and the solution filtered off, and the insoluble portion is mucus; the filtrate contains uric acid, which, by the addition of a little chlorohydric acid, falls in a crystalline form. When examined under the microscope, we observe rhomboidal plates, and sometimes compound crystals shaped like dumb-bells (fig. 5.)

FIG. 5.

A portion of the crystals may be tested chemically, to confirm the presence of uric acid. We dissolve them in nitric acid, and evaporate, with caution, to dryness; what remains is moistened with a trace of ammonia (or merely exposed to its vapor), when a deep purple mass is produced,

by gentle heating, which, on cooling, deposits gold-green crystals of murexide. [Uric oxide?—Eds.]

§ 4. Should the Urine appear colored brown or green, and be frothy, we have reason to suspect *bile*, or its pigments, cholepyrrhin or biliverdin. A small quantity of Urine is poured on a white plate, and a drop of red (fuming) nitric acid allowed to fall on it, when, if cholepyrrhin be present, a play of colors appears, passing from green, blue, violet-red, finally into yellow. A mixture of equal portions of nitric and sulphuric acids renders frequently the reaction still more distinct.

If we fail to find cholepyrrhin, we test next for biliverdin. Some Urine is treated with a solution of sub-acetate of lead; a colored deposit falls, which is collected on a filter, washed, and dried. The mass, having been removed from the filter, is digested with some alcohol containing a few drops of sulphuric acid; the mixture shaken, and then left to subside. If the alcohol assumes a green color, biliverdin is indicated. For further confirmation, we mix another quantity of Urine with some soluble albumen, and add nitric acid until coagulation takes place; a blueish green deposit is formed should biliverdin be present.

If no coloring matter of bile can be detected, we turn our attention to glyco-cholic and tauro-cholic acid (united with soda in the bile), which have been occasionally met with in morbid Urine. A portion of Urine is evaporated, almost to dryness, in a water bath, the residue treated with alcohol, the alcoholic extract again boiled down, and what remains, dissolved in a small quantity of water. This solution, brought into a test-tube, is mixed with a few drops of sugar solution (one part of sugar and four parts of pure concentrated sulphuric acid). It will turn purple, if either of the acids named be present. The trial can be made with the original Urine, provided it is free from albumen, which shows a similar deportment, and hence has always first to be removed.

§ 5. The Urine is examined for sugar.

1. Add to the suspected Urine, previously brought into a long test-tube, just enough of a solution of sulphate of copper to tinge it slightly blue (a slight deposit of phosphate of copper generally falls, which may or may not be filtered off), and, after that, liquor of caustic soda or potassa in great excess. A blue precipitate of hydrated-oxyde of copper is, at first, thrown down, which is re-dissolved in the excess of alkali. On gently heating the solution to ebullition, a red sediment of suboxyde of copper falls, if sugar be present.

2. Or we mix with an alkaline solution of sulphate of copper (being previously diluted), some twenty to thirty drops of Urine, and apply a gentle heat.

In regard to these tests (§ 5, 1 and 2), it may not be superfluous to remark that albuminous matter may (especially by continued boiling) cause likewise a reduction in the alkaline copper solution; indeed, it was recently observed that the mucus of normal Urine, or the mucus of the vagina secreted with the Urine, particularly of pregnant and paturient females, induces the same changes readily, giving thereby cause to mistakes and erroneous results in the qualitative and quantitative determination of sugar. Of course, in such cases, it becomes an absolute necessity, first, to get rid of the mucus before testing for sugar.

A certain quantity of such Urine is evaporated, upon a water bath, to dryness, and the remainder extracted by strong alcohol, which dissolves, besides urea, all the grape sugar present. This solution may be divided into two parts. From one portion, we drive off the alcohol in the water bath, whence the residue is brought directly in contact with the alkaline copper solution; to the second portion of the liquid, we may add a solution of caustic potash, in absolute alcohol, when all the sugar is thrown down in the form of an insoluble potassa-saccharat. This precipitate, first dissolved in a little water, we bring now together with the alkaline solution. The least

trace of glucose is thus unmistakably traced in any Urine, whether normal or abnormal.

3. Bring into a narrow test-tube some two cubic centimetres (or two drachms) of Urine, and add to it about half its bulk of caustic soda or potassa, and heat the upper part of the tube over a lamp to boiling. That portion of the liquid exposed to the alcohol flame will turn brown, if sugar is present.

4. The addition of a little pure bile to diabetic Urine, followed by that of sulphuric acid, produces a transient purple color.

5. The presence of yeast-fungi (ascertained by the microscope) is an additional evidence that saccharine matter is in the Urine.

[To be Concluded in the Next No.]

ART. XIV.—Report to State Society on Diseases and Topography of North-Eastern District of the State of Michigan.

By C. M. Stockwell, M. D.

Your Committee find some difficulty in fixing the boundary of the district designated as the field of his labors, owing to the irregular configuration of the eastern and northern boundaries of the State, but have embraced, as the ground of this Report, that portion bounded on the north by Saginaw Bay and Lake Huron, on the east by Lake Huron, St. Clair River and Lake, on the south by Lake St. Clair and Wayne County, and west by the counties of Livingston, Genesee, and Saginaw; embracing the counties of Tuscola, Huron, Sanilac, St. Clair, Macomb, Oakland, and Lapeer.

Of the physical conformation of the first two, I can say little, as they are as yet but sparsely settled, but from information I can derive from men of intelligence, who are familiar

with them, I am led to believe that they differ little from other portions of the district embraced within this Report. They are perhaps more rugged, and instead of the gently undulating surface of Lapeer and the western portions of Sanilac, St. Clair, and Macomb counties, are slightly more broken into rugged hills and corresponding vales, and their streams more rapid and less colored by the vegetable decay of swails and marshes.

Owing to their limited settlement, the type of their diseases is not satisfactorily established, although it may be reasonably anticipated. Although as yet an almost unbroken wilderness, an opening here and there, adjacent to or in the midst of their scattering fields of pine, afford us some data by which to judge of the character of their diseases.

The pine, although abundant, is not general, but found in clumps of a few trees, in patches, in fields or belts, or more properly ridges. These growths of pine have been the main incentives to the occupation of most of that portion embraced by this Report lying north of latitude 42 deg. 54 min., and east of Saginaw Bay;—indeed, so fully did these patches of pine occupy the attention of explorers, that not until quite lately was it supposed that arable and productive lands, worthy the attention of agriculturists, were to be found here.

Although those portions of Huron and Sanilac counties forming the shore of Lake Huron, in the former often approach it (the lake) in high bluffs of rock, and in the latter in similar bluffs of clay formation, yet, at the mouths of its larger streams, are frequently found considerable marshes, mostly on a sandy deposit, with soil sufficient to favor a rank growth of aquatic vegetation, while those bluffs, abrupt as they are towards the lake, descend, behind, rather from than towards it, in varying distances, from a few rods to a mile or more, sometimes thus forming shallow lakelets, and again marshes proper, or marshy swails, abounding in rank growths of Tamarack, Spruce, and White-Cedar. These form the

feeders to the streams that course their way to the lake through deep and narrow ravines, often with considerable velocity. Most of these marshes are capable of convenient drainage, and of being made, with no great amount of labor, arable, and no doubt largely productive. In the early history of the timbering operations, these open marshes furnished a large proportion of the hay used in those operations.

The soil of the counties thus far referred to, like that of most of this portion of the State, is mostly a clay loam, with with a considerable admixture of limestone gravel, rising here and there into ridges, either of sand, or increased sandy admixture, upon which, the principal growths of best pine are found.

St. Clair County, although in its general nature resembling those before described, is much less undulating, and its formation is far more of an alluvial character; consequently, marshes, sand hills, and sand and gravel ridges, are more frequent than in any other county in the district, while it has far more pine than any other portion of same extent. Through it, the largest stream in the district (Black River) flows, and empties its dark waters into the River St. Clair, about a mile and three-eighths below its exit from Lake Huron, often flowing (when swollen by heavy rains) miles along the right, or west, bank of the latter, vainly seeking to hide its filth therein. At the mouth of this stream, both above and below, are considerable marshes, such as described at the mouths of the larger streams of the more northern counties. As the effect, however, of varying winds, causing a frequent increase and decrease of the water on these marshes, and a consequent current, their waters are never stagnant, but often as pure and clear in appearance as those of Lake Huron.

Although expecting, and observing with reference to the realization of such expectations, a greater comparative prevalence of epidemic and miasmatic diseases, on or about these marshes, I have, in a continued observation of six years,

been unable to confirm my supposition, although, sometimes a Periodic Dysentery has *seemed* more prevalent here than elsewhere.

Between the mouth of Black River and Lake Huron, the bank of St. Clair River is, in some places, about twenty feet high above the water, with a considerable forest growing thereon, and stumps of oak and pine trees that must, when cut, have been from three to five feet in diameter, yet this land is made up of stratified sand, gravel, shells, etc., lying upon a base of extremely tenacious clay, upon which, with a considerable layer of shells, with the sand deposit above them, lie numerous trees of oak and cedar, their bodies at right angles with the river, and their roots, or that portion of their bodies nearest the roots, exposed by the washing away of the bank in which they lie. Their texture, although firm, is changed by a peculiar process of decay, by which the oaks have become considerably blackened, and the grain separated in such a manner that, when wet, viewed from a little distance, a section presents much the appearance of whalebone.

Approaching the southern boundary of the county, the soil becomes of a purer clay, with a far less admixture of either sand or gravel; the surface more generally flat, and but little elevated above the waters of the River St. Clair, until the eastern portion of Macomb, and the extreme south-eastern portion of St. Clair, become almost wholly a moist, cold, tenacious clay, of a blue or gray color.

The western portion of Macomb, and most of Oakland, so far as I can learn, are nearly allied in physical character and nature of soil; which latter, although clay is its predominating constituent (or rather clay loam), is less tenacious, and contains a more general and increased admixture of fine lime gravel.

Lapeer County, in the conformation and character of its soil, is nearly allied to Tuscola, and the western portions of Sanilac and St. Clair counties, differing from Oakland and

the western portion of Macomb, in the proportionate constituents of its soil, consisting of more and a firmer clay, with less sand and gravel, but containing, instead, many boulders of sandstone and bluestone (or "hard-heads," as commonly termed), varying in size about as do the different varieties of common shot.

The waters of the district embraced within this Report, are discharged towards almost all points of the compass, its water-shed lying nearly along its middle line, but approaching much nearer, and more abruptly, its northern boundary, where its elevation above the sea-level is considerably greatest and where, of course, its streams are considerably more rapid. In several of the shallow marshes before referred to, I am informed (and specimens have been shown me) is found a firm, friable earth, of light gray color, called marl, which in some cases has been dried and burned, and used as lime, which purpose it is said to have well answered. I do not learn that it is greatly abundant, but should it prove so to be, it will no doubt ultimately become an important local fertilizer. The use of such a fertilizer is said to give Erin her claim of being the "Garden of the Sea."

The diseases of the entire district are markedly of a periodic type, exhibiting all the varied gradations of which the higher latitudes are susceptible, from pure Ague to the severe forms of Pernicious Fever, or "Congestive Chills," as popularly termed. Upon the higher lands, and more especially upon the soil described as characteristic of the counties of Lapeer, Tuscola, the western portions of St. Clair and Sanilac, and the central southern portion of Huron County, an inflammatory type of disease, in varied gradations, prevails considerably, apparently engrafted upon an imperfectly developed Periodic Fever, or at least considerably subservient to an ever-existing periodic influence; the conjoined effects of both requiring often, of the uninitiated at least, no little care, vigilance, and judgment in its management.

Although tempted sorely to the use of the lancet and antimonials, in accordance with good old New England custom and teaching, the mandate of reason and western experience, is, "Withhold thy bloody hand." The only depletory treatment in most cases admissable is a thorough cathartic, followed by the influence of veratrum with opium combination. This, even, is often necessarily abandoned for the strictly antiperiodic treatment with quinine and opium, or quinine and Dover's powders; — indeed, my own practice, confirmed by the testimony of several intelligent practitioners, leads me to the firm conclusion, that scarce a case occurs in which the cure is not materially hastened, in some stage of its progress, by the use of antiperiodic remedies, so markedly does the periodic influence preponderate. That influence, however, has not proved so active, either in the development or progress of disease during the past two years, as heretofore. Whether this is attributable to climatic causes, or to progressive settlement and reclamation of the soil, remains to be decided by future observations. Your Committee is, however, disposed to believe, from the general history of misasmatic disease and its relations to new settlements, that, as the country becomes better drained and more densely populated, with increased tillage, periodic influences will give place more generally, if not exclusively, to typhoid and inflammatory diseases; which changes will doubtless be marked by a greatly increased proportional rate of mortality.

During the year just passed, there has been a very great decrease in the number of cases of fever of periodic type (so great, indeed, as hardly to have exhibited a single case of uncomplicated Ague and Fever); but, with its decrease, diseases of typhoid type have been much more prevalent than heretofore, their progress being synchronous with that of more local and more decidedly inflammatory character.

The sandy and marshy lands of St. Clair County have been the field upon which the prevalence of periodic disease

has even been most marked, while upon the low, cold, and wet lands of its southern portion, and the eastern portion of Macomb, enteric disease of various forms, as Cholera, Dysentery, Cholera Infantum, and Diarrhœa, have prevailed more extensively.

In connection with the above, although not strictly belonging to it, I would invite attention to the points of visitation of the Cholera and Choleraic Dysentery of 1854. While it prevailed considerably, and was attended by great fatality, on the clay lands of the Canadian side of the St. Clair River, opposite and below Port Huron, and those also of St. Clair village and its surrounding country, Port Huron, and the sandy and gravelly soil about it, suffered very lightly from the epidemic visitation. There, even Choleraic Diarrhœa and Dysentery (which often prevailed where the Cholera-miasm was seemingly not developed with sufficient intensity to produce the real disease) prevailed by no means extensively, exhibiting no greater severity, and attended with little more fatality than Diarrhœa and Dysentery often do, when Cholera is not rife. Only one well-authenticated case of Cholera occurred in that year, in or about Port Huron. Whether this immunity was due to difference of soils (the sand and gravel being more porous, and therefore favoring the more rapid absorption of moisture, as dew or rain, thus the more readily permitting the washing away of the fungoid growths, or germs, suggested by Dr. T. W. Mitchel as the means of its propagation), is a subject worthy of more thorough and attentive consideration; the more so, on account of the numerous conflicting, yet plausible, theories of cause and means of propagation, advanced not only in our journals, but in our standard medical works.

Trusting that this brief and imperfect sketch may, at least, be productive of good results in encouraging a more ready response to the claims of the Society upon its members, the foregoing Report is respectfully submitted.

ART. XV.—Report to the State Society on the Diseases prevalent at Coldwater, Michigan, during the Year 1857.

BY J. H. BEECH, M. D.

January.—The year 1857 found our locality nearly exempt from severe maladies. Erysipelatous and furunculoid inflammations were common, but mild; intermittent and catarrhal fevers were occasionally seen, the former yielding to quinine as promptly as in autumn. It will be observed by the accompanying Table, No. 1, that the intense cold of the first month was a bar to the plea of "koino-miasmata." During the last half of January, pneumonia, croup, and other laryngeal affections, were in our midst.

Variolous disease was introduced to five houses in our village, and communicated to a family in Bethel Township—through a fellow-passenger—by a lad of sandy complexion, and a bad stammerer, who came from Buffalo, N. Y., by railroad, while convalescing from varioloid. A candy-boy, aged twelve years met this lad at the depot, and conversed with him, noticing at the time certain "sores on his face." This boy was in vesicular eruption (January 16th), before the disease or any exposure to it was suspected. Two days previous to the appearance of erythema, we saw this boy, for a pain in the right side, which, he said he had hurt a day or two previous. Respiratory murmur being comparatively weak, pneumonia was suspected. A thorough calomel purge was prescribed, to be followed by pulv. Doveri and sol. ant. tart. We did not see him again till vesicles were forming, and heard no more complaint of the side. The eruption of variola was very thick on the face and arms, but thinner on the body and legs. On and after the fourth day, tinct. iodine (saturated) was used as an eccoprotic, and six months after the cicatrices showed but very little. The treatment consisted, principally, in the use of pulv. ipec. et opii gr. iv.,

with calomel gr. j., or pulvis Jacobii gr. ij.; *pro re nata,* spiritus nit. dulcis, and occasional doses of syrup rhei, or ol. ricini. On the fourth day of the eruption, finding an unexpected degree of inflammation at the base of the vesicles, we learned that whisky-punch had been given, and forthwith interdicted its use until prescribed. After desication, commenced a liberal diet of digestible food, and weak brandy or whisky-sling were allowed.

This boy had never been vaccinated, and there were two brothers and a sister alike unprotected in the family at the time. The mother (a widow) had a vaccine scar. There were four, in another family of seven or eight persons, in the same house, who had never been vaccinated. I experienced great difficulty in getting vaccina introduced at the infected houses. But one or two vaccinations succeeded, to my mind, out of a great number; in which, several different kinds of virus were used in each subject. Some of the virus used I received from Detroit, some from Chicago, and some of my own preserving eight or ten months previous. Each parcel answered all reasonable expectations out of the circle of previous exposure to variola. We did finally succeed, so far as to modify, in our opinion, all but the first attack in this house, and, as intimated above, positively protect two, unless idiosyncrasy prevented the contagion.

A sister of the "candy-boy," aged fifteen years, began breaking out sixteen or seventeen days after the eruption of the first case, and three days after a vaccine vesicle had been in progress; which seemed to remain *in statu quo* until the variolous eruption became pustular, when it became umbilicated, and finished its usual course. This girl was of bilious temperament, and plethoric. The febrile symptoms were much higher than with her brother. Pulmonary congestion and extreme dyspnœa occurred on the fourth and fifth days of eruption. Vesicles arose thicker on the face than elsewhere; but were punctured early and dressed with

℞ Collodion . . . . . ♏ xxx.
Tr. Fer. Muriat. . . . . ♏ xx.
Tr. Kino . . . . . ♏ x.

Misce.

As an eccoprotic with apparent success. I have not seen her since convalescence. Tr. verat. viride controlled the heart's action, in the most active febrile stage, and was required in addition to the treatment described for the former case. Quinine, or salicine and ammonia carb. were prescribed about the period of desication. No attempts were made to keep the patients very warm; nor could it have been done, as the house was poor, and thermometer near or below zero most of the time. Six other variolous attacks occurred in this house, requiring but little treatment.

A saloon-keeper, who gave the Buffalo boy a meal, and allowed him to take a "nap" in his room got "varioloid," having been vaccinnated when young. On the third day of the vesicular stage, febrile action was very high; the directions for moving the bowels had been neglected, and the burning sensation of the soles of the feet was excruciating. It was there that the thickest eruption occurred. Free catharsis by syrup rhei and "black draught" procured relief in a few hours, and the case progressed mildly.

An infant daughter of this saloon-keeper, seven weeks old, which had been repeatedly vaccinated, as before described, began to break out nine days after the father discovered his eruption. The face of the babe was completely covered, and the body and limbs very thickly set. The father broke every vesicle on the face and arms, and applied saturated tincture of iodine, touching the vesicles again and again, till the fluid was exhausted from the camel's-hair pencil which he used, and a dry brown crust produced. A few seemed to defy the iodine, probably from being overlooked in some of the dressings, which were night and morning. These, when much

advanced, were dressed with argent. nit. The early constitutional treatment was principally

℞ Hydr. Chl. . . . . gr. j.
Pulv. Ipec. . . . . gr. ij.
Pulv. Doveri . . . . . gr. iv.
Sach. Alb. . . . . gr. v.

Misce. F. Pulv. No. viii. cap. quarto vel sexta quaque hora, pro re nata.

This babe refused the breast almost entirely for several days, at first from loss of appetite and subsequently from stiffness of the lips.

January 14th, 1858.—I have just seen this babe, and should not have noticed any marks on her face, if I had not inspected closely.

The mother had been vaccinated in childhood, and proved secure against vaccina or variola.

Another family deserves mention in confirmation of the value of thorough vaccination. A gentleman, who had five children between two and fourteen years of age, took the Buffalo boy, charitably, to his house on Saturday evening, and kept him until Monday, exercising no caution except that, as he had an eruption which might be itch or something similar, he caused him to use a towel by himself. Great pains had been taken in former years to have these children thoroughly protected by repeated vaccinations, to entire satisfaction, except in one son, in whom vaccina was difficultly and imperfectly produced. This son had variolous rash, but no vesicles. The father, who from thoughtlessness, which *probable* security engenders, had not been re-vaccinated in several years, had varioloid so light as not to prevent business or traveling. The vesicles were most numerous on his head and neck, but none matured, as the patient industriously pinched out every "little boil" he could find.

A case of very mild varioloid also occurred in a large

family where the Buffalo boy subsequently lived, and where some of his clothes were washed.

That the contagion was not unusually mild, the following cases will show:—An omnibus-driver, of dissolute habits, having a fair vaccine scar on the left arm, contracted varioloid from the same source, and died about five weeks after probable exposure. We saw him about one week before his death. The vesicles were becoming opaque, and had a faint areola; they were very thick, but not confluent. This patient was moved about one and one-half miles the evening after our visit, which, in addition to his former habits, was prejudicial to his recovery.

An infant child of this man died of variola, having been tampered with by an officious nurse, without the knowledge of the physician.

One other case is reported to have terminated fatally, but a mystery was attached. Of the death there is a certainty, but the diagnosis is not clear. The patient was attended by a homœopath.

This makes sixteen cases of variolous infection in Coldwater, in January, three of which terminated fatally during the first week in February.

February.—Pneumonia, acute rheumatism, diarrhœa, and dysentery were the acute affections of the month, prevalent in the order named.

The extreme low temperature of the previous month was changed, during the first week of February, for heavy rains with thunder, and again re-placed by severe cold. The most sudden reduction of temperature of the season occurred between the 7th and 8th, and several attacks of acute rheumatism came under our observation during the second and third weeks of the month, most having been ill a few days previous. Tr. colchici sem. and paregoric, internally, and tr. colch. sem. as a lotion, gave flattering success. Morphia sulph. or pulv.

ipecac comp. cum camphor, were sometimes required, to mitigate the pain at first, and, when given, were doubtless of farther service. Murcurial purges, or pil. cath. comp., were also indicated, and prescribed.

A case of obstinate bilious vomiting in this month, to which most of the anti-emetics were of no use, and which had assumed a dangerous aspect, yielded to strychnia, in doses of gr. 1-20th in pill with gr. j. of ext. conii. Conium had been used, without strychnine, to no purpose.

March.—During the first half of this month, acute catarrh was very common, and very severe. Penumonia was, as usual, a frequent attendant upon the catarrhs, and occasionally deposed the former affection, after the HAHNNEMANIC rule of cure; but we did not think our patients benefited by nature's quackery. None, however, proved fatal, and that is more than we can say of human efforts in that line.

In the latter part of March, erysipelas of the face destroyed a citizen of good habits, under careful and skillful treatment. Several other attacks occurred, but few of them severe. An erysipelatous epidemic tendency was evidently prevailing, which density of population might have fully developed. Tinct. iodine (as we described its use in variola), we think, is the best topical remedy.

April.—Owing to my own absence during nearly the first three weeks of April, I have obtained information from S. S. CUTTER, M. D., who has been in active practice in Coldwater since 1846 or 1847.

Dr. C. thinks this was the healthiest April he ever knew here. Some pulmonary affections were under treatment, and patients exhibited more biliary derangement than is usual in this month.

Sporadic cases of scarlatina were in town. One case proved fatal by its sequelæ (Hydrops in Table No. 3). Two

days previous to the demise, this patient was in great danger from "œdema glotidis"; but we learned that this was not the cause of death.

After the 20th, we found bilious pneumonia, acute abscesses or furuncles, and eczema the chief acute diseases. The most remarkable of these, to me, was an abscess in the right mamma of a male child ten and one-half weeks old, which discharged ℥ ℨ j. of laudable pus when first incised. We were assured that this had neither been pinched nor roughly handled.

May.—Bilious pneumonia, of severe grade, laryngeal affections, intermittent fever, with occasional severe cephalic or spinal congestion, and rheumatism.

Alteratives were required in treatment of intermittents more than tonics or antiperiodics. Quinine was not well borne. Tr. verat. viride was used satisfactorily where we once would have felt unsafe without venesection.

June.—In this month, pneumonia was very prevalent among children, and several cases proved fatal. An infant, four weeks old, died of convulsions in the very onset of pneumonia. Three older children (all there were in the family) were attacked with lobular pneumonia in the same week, and were under treatment seven, four, and twelve days—the second attacked having the shortest sickness; the babe was the third taken sick.

In another family, an infant, six weeks old, coughed slightly three or four days, and died within ten hours after any fears of severe disease were entertained. A sister, three years of age, had been attacked with cynanche tonsilaris May 27th; the next day exhibited signs of pneumonia on the right side, and was convalescing slowly, when (June 13th) the tonsilitis relapsed, and the inflammation spread to the whole mouth and tongue. The right lung gave new signs

of inflammation on the third day of the last attack, and death occurred on the succeeding day. The only other child in the family had a similar, but very slight attack. These, and several other cases, presented many features which we have observed when scarlatina and rubeola were epidemic, which was not the case at the time, although sporadic cases were occurring at a distant part of the village, and no exposure of these children was known.

Rubeola became more common in the latter half of the month, and subsequent reflection impresses us with an idea of its latent influence, in the cases alluded to. Where rubeola was distinct very little medication was required. Gentle laxatives [ol. ricini we prefer], and determined resistance of the popular predilection to *surfeiting and sling.* The heating treatment is more apt to be slyly introduced in exanthemata, than any other hobby which gossips ride. The severity of sporadic rubeola oftener arises from such tampering than from the natural tendencies of the disease.

July.—Rubeola continued frequent during the first half of July. In the latter part, diarrhœa, with bilious vomiting, began to appear; but the season was healthy, temperature moderate, showers frequent, and generally attended by heavy thunder.

August.—Diarrhœa, dysentery, quinsey, pneumonia, and rubeola.

Diarrhœa seemed frequently to be disguised attacks of fever, usually remittent, and continuing about one week.

September.—Diarrhœa, dysentery, bilious fever, erysipelas, intermittent fever or ague and fever, and pneumonia. The frequency of none was sufficient to class them as epidemics, and local causes would account for most of the attacks which came under our observation.

October.—Ague, dysentery, remittent and continued bilious fever, diarrhœa, pertussis, and pneumonia were prescribed for, but were generally mild.

The most evident cause of diseases, which came under our observation, was shallow wells, or those which were simple reservoirs for water, which came from the surrounding surface without being filtered through the soil.

In a family of six members, all over nine years of age, living on a sandy but springy knoll, having a well nine feet deep, but from which water can usually be dipped by hand, five persons had long sickness, four of them protracted fevers. The indisposition of the father did not confine him to his bed, but lasted several weeks, in which time erysipelas made its appearance upon one cheek, but did not become extensive or serious. The fevers began with the youngest, a girl, in September. She and one other had severe pulmonary congestion for a few days, but no prominent symptoms of pneumonia succeeded. The bowels were very loose in three, for a day or two in the first week, but were not very troublesome. In the other patient, there was abdominal tenderness, with constipation, for the first seventeen days, and then diarrhœa, similar to the others, viz., brown watery evacuations. The fever was "remittent" for four or five days, then "continued," from five to ten days; when the febrile symptoms abated, and the skin became moist; but quinine, or any of its substitutes, were not tolerated until six or eight days afterwards. Convalescence was slow. The first case had nearly been sacrificed when we first saw her, by determined efforts to administer the Eclectic class of tonics. The tongue was then brown and dry, and delirium fierce. A few powders of calomel and ipecac, a saline cathartic, and omission of the tonics for a time, corrected these symptoms.

The neighbors, on either side, have deep wells, and were healthy. No difference in the mode of living, or other circumstances, could be found.

Another family, in a distant and healthy locality, suffered

severely from fevers, of which we attended two cases,—one with pleuritic congestion, and the other with cephalalgia. After using alteratives, and tr. verat. viride, for three or four days, salicine, or quinine, was well borne in each. Other members of the family have been sick severely, and one has died under the care of a *Heteropathist* of cameleon dye. We learned that "bloody froth" issued from the nose and mouth after death, and presume pneumonitis had been there. The well from which this family got their supply of water was, in summer, "lively with wigglers," showing too high a temperature for healthy water. The healthiness of the country generally, and absence of other rational causes, point to these facts, which we believe are especially prolific, and perhaps unavoidable in new and level countries.

November.—A peculiar form of influenza appeared about the beginning of this month, attended with an extremely severe cough, so nearly spasmodic in its character that it was often difficult to diagnosticate from pertussis. It was more general than any other disease we have seen in this State. A professional friend, who usually speaks prudently, has remarked, that "nearly, or quite nine-tenths of the community were attacked. Pains in the head have not been as much complained of as in ordinary epidemic influenza. Bronchitis was more marked than laryngitis, and in the catarrhal symptoms were still less constant. Personal experience has enabled me to trace the sensations which produced cough and other exhibitions, in conformity with my neighbors.

The prodromes were severe pains in the nuchæ, loins, and legs, for about twenty-four hours, with little or no intermission. The cough was not preceded by sneezing (and it was not a cough "to be sneezed at"). A constant irritation was felt at the top of the sternum, as if a drop or more of very cold water was lodged at or near the bifurcation of the trachea, which at times was so annoying that the inclination to remove it was almost irresistible, although determined will

could suppress the cough, if air was not hastily drawn in. A full inspiration, preparatory to hawking, ahemming, or premeditated careful coughing, would excite an explosion of an unusually violent and persistent cough, hurrying the breath out of the poor victims, till, like a collapsed balloon, they stopped for inflation. A small quantity of clear viscid mucus would sometimes be expectorated, but free expectoration did not appear till after several days of cough, and then did not mitigate its violent spasmodic character. We know many families in which nearly every member was affected, where "whooping" or the characteristic "hiss" of pertussis were carefully watched for, but never detected.

In my own case, the upper lobe of the right lung became inflamed, and streaks of blood were mingled with the sputa for two days, which, I think, was not common. In most cases, the cough retained its forcible spasmodic character as long as the disease continued, but gradually diminishing in frequency, without very copious secretions of nasal or bronchial mucus.

Facts controverted suspicions of contagion. Our opinion is, that a *small* portion of the trachea, near its bifurcation, was studded with irritable granulations, intensely inflamed, and that the coldness was produced precisely as a current of air irritates a highly inflamed conjunctiva. A more moderate degree of inflammation probably existed throughout the vocal apparatus, and especially at the "rima glotidis," and our treatment corresponded with this diagnosis, to wit:—Attention was usually required for constitutional derangements. Cathartics and antiphlogistic regimen were always of service, and the sedative influence of ant. tart. and ipecac., even to emesis, gave some relief, especially among children. "Pil. comp." or "massa hydr.," were usually first given to adults; and, in our own case, decided benefit attended the appearance of slight ptyalism, which was twice induced. The use of a probang in the larynx, loaded with a solution of arg. nit. (x. to xv. gr. to the ℥ ℨ) gave the most relief from cough. Even

when the instrument did not pass the "rima glotidis," a truce followed the application; but a thorough introduction of the solution to the trachea, — when "the sentinel" could be cheated — would ensure quiet for several hours. My own epiglottis is so much more *dexterous* than my right hand, that it is impossible for me to pass a sponge probang, whereas I have frequently succeeded with one of silk floss. Most patients have too great horror of the tongue-spatula and probang, to submit cheerfully to their use in diseases which they expect will "expire by limitation." Only two adults were treated by me with the local remedy named, and those seemed highly gratified with the effect. The following cough mixture gave better satisfaction than any other which we tried:

℞ Tinct. Scillæ . . . . . ʒ ℥ j.
Tinct. Opii Camph. . . . ʒ ℥ ss.
Tinct. Lobelia Inflat. et Belladonnæ āā ʒ ℥ ij.

Misce. Dose, a teaspoonful for an adult, at intervals of two or more hours.

Sinipismi, ad nuchæ, or, for children, ginger poultice, or roasted onions, there, and at the supra-sternal region, seemed serviceable.

Our own illness was about twenty days, but confinement to the house was, at no time, absolute. A small blister drawn, first on the right sub-clavicular region, and afterwards on the lower anterior portion of the neck, subsequently dressed with antimonum tartarizatum, *felt* like hastening convalescence.

As the prevalence of this affection can only be attributed to atmospheric influence, we have compared such records of the winds and thermometer readings as we had kept, during the accession and acme of the epidemic, with the same periods in 1855 and 1856, and find no sufficient cause for the disease. By an uncompared, and rather rude barometer (in the correctness of which we have not sufficient confidence to keep a concise record), we observed that, from November 3d, 9 P. M.,

to the 4th, at 1 P. M., there was a greater fall than we have observed in the same number of hours at any other period during the autumn, except in the second week in September; about which time we observed the largest proportion of attacks of fever, diarrhœa, and dysentery of that month. In the first half of October, we had an unusual amount of southeast wind, but influenza did not appear soon enough to be recognized as effect.

December.—Sporadic cases of erysipelas, intermittent fever, and pneumonia, generally mild, and entirely without fatal cases, closed a year which in our section will long be remembered for vigorous vegetation and uniform good health.

TABLE No. 1.—*Condensed Record of Thermometer Readings at Coldwater, Branch County, Michigan, during the Year* 1857.

MONTHS.	MEAN TEMPERATURE.				WARMEST DAYS.		COLDEST DAYS.	
	7 A.M.	1 P.M.	10 P.M.	Months.	Date.	M'n Tem.	Date.	M'n Tem.
January	7·838	22·387	10·290	13·503	18th	−22	27th	28·333
February ...	28·357	39·321	33·178	33·619	10th	2·666	17th	57·333
March.....	23·612	39·709	28·225	30·516	2d	9·	23d and 30th	43·666
April	33·	43·5	34·733	37·077	6th	21·	29th and 30th	53·666
May	49·709	61·245	46·744	52·575	11th	32·666	24th	71·666
June	60·233	75·233	59·533	64·888	4th	55·	27th	76·333
July.....	65·225	79·903	66·129	70·419	1st	54·333	12th 13th 17th	78·666
August.....	62·451	78·145	63·612	68·069	20th	60·333	13th	79·333
September ..	57·633	75·1	58·133	63·622	29th	46·	12th	78·
October	38·887	61·161	43·645	47·559	20th	29·333	11th	63·666
November ...	28·433	41·033	30·533	33·333	25th	5·333	6th	53·666
December ...	28·662	39·935	31·209	33·269	25th	25·833	14th	43·

MONTHS.	MAXIMUM TEM.		MINIMUM TEM.		GREATEST RISE IN 24 HOURS.		GREATEST FALL IN 24 HOURS.	
	Deg.	Date and Time.	Deg.	Date and Time.	Deg.	Date and Time.	Deg.	Date and Time.
January.	39·	1st, 1 p.m.	−22	18th, 7 a.m.	46·	25-26, 10 p.m.	35·	17-18, 7 a.m.
February	61·	17th, 1 p.m.	−4	11th, 7 a.m.	36·	11-12, 10 p.m.	44·	7- 8, 7 a.m.
March...	58·	21st, 1 p.m.	−3	2d, 7 a.m.	29·	13-14, 7 a.m.	28·	1- 2, 7 a.m.
April....	69·	29th, 1 p.m.	15	6th, 7 a.m.	19·	7- 8, 7 a.m.	30·	5- 6, 7 a.m.
May	86·	9th, 1 p.m.	29	11th, 10 p.m.	24·	7- 8, 10 p.m.	42·	9-10, 1 p.m.
June....	90·	27th, 1 p.m.	45	4th, 10 p.m.	21·	14-15, 1 p.m.	17·	17-18, 27-8, 1 p.m.
July	91·	12, 13, 17, 1 p.m.	54	1st, 7 a.m. 10 p.m.	16·	2- 3, 1 p.m.	16·	20-21, 1 p.m.
August..	92·5	9th, 1 p.m.	52	20, 24, 30, 7 a.m.	13·	29-30, 1 p.m.	12·5	9-10, 1 p.m.
Septem..	92·	13th, 1 p.m.	37	29th, 10 p.m.	16·	9-10, 7 a.m.	24·	27-28, 1 p.m.
October..	77·	8, 9, 1 p.m.	26	20th, 10 p.m.	15·	3- 4, 1 p.m.	20·	12-13, 7 a.m.
Novemb'r	65·	4th, 1 p.m.	−14	25th, 7 a.m.	20·	26-27, 10 p.m.	26·	18-19, 10 p.m.
Decemb'r	55·	14th, 1 p.m.	7·5	25th, 7 a.m.	19·5	25-26, 7 a.m.	16·5	24-25, 7 a.m.

TABLE No. 2.—*Condensed Record of Winds, Clouds, Frosts, and Storms, at Coldwater, Branch County, Michigan, during the Year* 1857.

MONTHS.	WINDS.					CLOUDS, RAIN, AND SNOW.						FROSTS, ICE, AND TEMPESTS.				
	Southerly.	Northerly.	Westerly.	Easterly.	Wind High.	Entirely Cloudy.	Entirely Clear.	Rain fell.	Snow or Hail fell	Greatest Fall of Snow or Hail.	Greatest Depth of Snow.	Early Frosts.	Late Frosts.	First Ice formed	Last Ice formed.	Very Fierce Storms.
	Ds.	Ds.	Ds.	Ds.	D	D	D	Ds.	Ds.	Date. Inches	Date. Inches	Date	Date	Date	Date	Dates.
Jan.	22	8	25	11	2	1	2	2	16	20th, 6	20th, 20					
Feb.	23	7	19	18	2	4	0	11	8	27th, 3						5th 7th 15th
Mar.	21	14	25	9	2	0	0	5	10	4th, $1\frac{1}{2}$	9th, 6		30th			22d
Apr.	19	15	19	8	1	5	2	5	11	18th, $3\frac{1}{2}$	6th, 3		28th			20th
May	18	19	15	21	2	0	3	15	3	5th, Specks			17th		17th	9th 30th
June	25	11	28	6	0	0	0	17	0				5th			
July	19	11	20	13	5	0	2	15	1	2d, Hail						8th 17th 18th 30th
Aug.	23	15	21	17	0	1	0	12	—							
Sept	21	12	19	11	3	2	2	13	—			29th				17th 27th
Oct..	24	11	15	21	1	0	4	11	1	19th, Flurries	24th, 10			15th		19th
Nov.	26	8	28	12	3	0	2	7	12		31st, 5					19th 20th 21st
Dec.	27	10	24	15	2	1	1	10	10	21st, 3						

TABLE No. 3.—*Mortuary Report for the Year* 1857, *at Coldwater, Mich., corrected, as far as possible, from Record of John Luck, Sexton.*

MONTHS.	NAMES OF DISEASES.																							SEX.			AGES.						
	Accideus.	Cephalitis.	Hyperæmia Cerebialis.	Hydrocephalus.	Spina Bifida.	Eclampsia.	Dysentery.	Enteritis.	Erysipelas.	Febris Typhoides.	Febris Scarlatina.	Febris Puerperalis.	Hydrops.	Morbus Cordis.	Marasmus.	Morbus Coxaris.	Phthisis Pulmonalis.	Pneumonitis.	Placenta Prævia.	Retentis Urinæ.	Scrofula.	Still-born.	Variola.	Ignotus.	Males.	Females.	Unknown.	Under 1 Year.	1 to 10 Years.	10 to 20 Years.	20 to 30 Years.	30 to 40 Years.	40 to 50 Years.	50 to 60 Years.	60 to 70 Years.
Jan'y	2*											1					2	1							3	3			2			4			
Feb'y			1																				3		1	2		1				1	2		
Mar'h									1								1								2							1		1	
April			1										1												2				1			1			
May		1								1							1	1	1			1			1	3	1		1			1	1		
June														1								1			2										1
July										1*		1*	1	1			1								1	3				1	2	1			
Aug't										1*											1				1	1			1	1					
Sept'r				1		2	4*	1			1					1	1*						1		7	4	1	5	4	1		1	1		
Octo'r							2								2					1					3	2		3	1					1	
Nov.										1							1								1	1					1	1			
Dec'r		1			1												1									2	1	2							
	2	2	2	1	1	2	6	1	1	2	2	2	2	2	2	1	8	2	1	1	1	2	3	1	24	21	3	11	10		5	11	4	2	2

Each * signifies a case brought from abroad. † Probably Delirium Tremens.

ART. XVI.—Meteorological Register for the Month of April, 1858.

BY L. S. HORTON, House Physician to U. S. Marine Hospital.

CLOUDS.—Under this head, the amount of cloudiness is designated by figures,—10 being entire cloudiness; 5 half cloudiness; and 0 entire clearness.

Date.	Barometer.			Thermometer in the Open Air.			Hygrometer.			Winds—Direction and Force.			Clouds.			Fall of Rain.			Remarks.
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	BEGAN.	ENDED.	INCHES.	
1	29·00	28·47	28·75	44	56	39	40	43	34	N.E. 1	N.W. 2	S.W. 1	9	8	9				
2	29·00	29·50	29·00	39	58	45	36	48	40	N.E. 2	N.E. 2	S.W. 1	8	2	1				
3	28·92	28·90	28·81	48	68	55	44	52	42	N.E. 1	N.E. 2	S.W. 1	2	3	1				
4	28·75	28·82	28·80	57	62	51	42	51	41	E. 2	S.W. 3	S.W. 1	3	2	2	12. m.	12.30 p.m.	·008	Thunder Shower.
5	28·80	28·78	28·88	48	71	31	38	33	30	S.W. 3	S.W. 4	W. 1	4	8	3				
6	29·00	29·18	29·18	27	42	33		34	30	S.W. 1	S.W. 3	W. 2	2	4	1				
7	28·18	29·21	29·00	30	41	41		34	33	N.E. 2	E. 2	E. 1	2	1	5				
8	28·91	28·62	28·61	42	52	48	34	48	40	N.E. 2	E. 2	S.E. 3	8	9	5	8.10 a.m.	12. m.	·23	Partial Rain.
9	28·56	28·66	28·85	57	53	42	47	47	37	W. 4	S.W. 3	S.W. 2	10	5	2				
10	28·93	29·00	28·95	43	50	42	38	47	34	S.W. 1	N.E. 2	E. 2	1	1	10	6.45 p.m.			
11	28·92	28·75	28·75	41	52	42	33	46	35	N.E. 2	N.E. 2	N.E. 3	10	8	10				
12	28·62	28·45	28·40	40	42	40	33	36	36	N.E 2	N.E 2	N.E. 2	4	4	5		6.30 p.m.	2·30	Interrupted Rain.
13	28·38	28·41	28·45	46	59	45	37	49	38	S.W. 1	S.W. 1	S.W. 1	4	8	10				
14	28·48	28·50	28·53	42	50	42	37	44	36	N.E. 1	S.W. 1	S.W. 2	5	10	5	8. p.m.	9.15 p.m.	·10	Moderate Rain.
15	28·63	28·70	28·76	46	54	41	39	49	37	S.W. 2	S.W. 2	S.W. 1	0	2	2				
16	28·83	28·87	28·87	42	55	34	38	50	31	S.W. 2	S.W. 2	S.W. 2	1	2	2				
17	28·88	29·00	29·05	39	51	41	34	47	38	N.E. 1	N.E. 1	S.W. 1	2	8	9				
18	29·08	29·10	29·05	43	51	39	38	46	34	N.E. 1	N.E. 1	N.E. 1	8	9	8	4.30 p.m.	9.45 p.m.	·45	Moderate Rain.
19	29·02	29·00	28·85	45	45	43	40	42	40	N.E. 2	N.E. 2	N.E. 3	9	7	10	9.50 p.m.	11.15 p.m.	·05	Free Rain.
20	28·72	28·50	28·54	46	60	46	41	54	41	N.E. 1	S.W. 1	S.W. 2	5	6	8	3.05 p.m.	9, p.m.	·16	Thunder Showers and [Continued Rain.
21	28·70	28·72	28·72	49	58	51	46	54	45	W. 2	S.W. 2	S.W. 1	2	3	8				
22	28·70	28·55	28·63	58	78	41	51	75	36	S.E. 3	W. 3	S.W. 4	9	8	1				
23	28·80	28·95	28·98	37	37	30	33	32	31	S.W. 3	W. 3	N.W. 2	8	7	8	7.15 a.m.			
24	29·00	29·05	29·07	31	35	30	31	32	30	S.W. 2	S.W. 2	S.W. 2	9	8	8				
25	29·10	29·08	29·10	31	42	31	30	37	30	S.W. 2	S.W. 2	S.W. 1	8	10	9		11. a.m.	·06	Hail and Drizzly Rain.
26	29·10	29·12	29·15	30	44	37	30	40	34	S.W. 1	N.E. 2	N.E. 1	9	8	3				
27	29·10	29·10	29·10	47	54	40	42	48	36	S.E. 2	S. 3	N. 1	4	6	4	11. a.m.	2. p.m.	·22	Sleet and Continued Rain.
28	29·10	29·10	28·95	40	54	49	35	50	44	E. 1	E. 2	W. 2	8	4	3	9. p.m.	10.15 p.m.	·04	Interrupted Showers.
29	28·91	28·78	28·60	53	67	58	49	61	54	N.E. 1	W. 3	W. 2	2	3	5				
30	28·58	28·50	28·62	64	51	48	60	45	36	W. 3	E. 3	S.E. 2	10	9	6	6.40 a.m.	8.10 p.m.	·19	Drizzly Rain.
31																			

ART. XVII.—Remarks upon Rheumatism.

BY O. C. GIBBS, M. D.

IN the PENINSULAR AND INDEPENDENT, for April, Dr. DUBOIS publishes an interesting and able Report upon Rheumatism, which we have read with pleasure. Its reading has suggested a few thoughts, which we wish to express, and that too in no spirit of criticism, influenced only by the consciousness that it is every man's duty, who is engaged in the noble work of mitigating pain and disease, to contribute his mite to enhance the efficiency of his art.

In regard to the difference to be noticed between rheumatic and ordinary inflammation, Dr. DUBOIS says:

> "Throughout all this febrile disturbance, there is no coma, no marked trouble of the stomach or of the bowels, no *vomiting*, no diarrhœa," &c.; "which it is fortunate to remember in some masked cases of difficult diagnosis.

To our apprehension, the above quotation contains an error, to which we are the more anxious to call attention, as Dr. DUBOIS is not the first to have given it expression. Vomiting is not common in rheumatic inflammation, but we have certainly seen unmistakeable cases, in which vomiting was the most distressing symptom. We have seen vomiting commence almost simultaneously with the arthritic inflammation, before any remedies had been administered, and have seen this symptom persist, in spite of treatment, for many days.

Rheumatism is a disease of such frequent occurrence, so distressing in its symptoms, so protracted in its course, and so often fatal in its consequences, that any practical remarks in regard to its treatment can not be deemed ill-timed or out of place.

In regard to treatment in this disease, we have never

bled, have never given emetics, or antimony as an antiphlogistic, and, in no inconsiderable experience, have never had reason to regret this neglect. Purging with neutral salts is an important therapeutic measure, but, as an antiphlogistic in this peculiar form of inflammation, we know of no compound to be compared with calomel, opium, and colchicum; the first in rather small, the other two in full doses. These of course, are to be used conjointly with, or succeeded by, such other means as the peculiar circumstances of the case may demand. Contrary to the teachings of some of our highest anthorities, we have no hesitation in saying that the earlier the calomel is used in this combination the sooner will the cure be effected, and the less will be the liability to heart complications. In our own practice, we are confident that endo- and pericardiac complications have not averaged one in fifty.

Rheumatic inflammation occurs in such a diversity of constitutions, and of such varying grades of intensity, that no uniform plan of treatment can be adopted. We have certainly seen cases, to the cure of which quinine and opium was better adapted, in our judgment, than any other known combination. In Rheumatism, as in all other diseases, for their successful treatment, a goodly share of common sense, and a thorough and appreciative knowledge of the principles of medicine are more indispensible to the practitioner than the best set formula that was ever devised.

There is one article of medicine that Dr. DuBois has not seen fit to mention, that in some forms of Rheumatism is certainly worthy of consideration. In chronic forms of this disease, or even in the acute forms when convalescence has commenced, the tincture of cimicifuga, combined with the iodide of potassium (the former in teaspoonful, the latter in from four to six grain doses) is certainly a remedy of great efficacy. The good effect of

this combination will be materially enhanced by the conjoint action of quinine in the debilitated, and the veratrum viride in the plethoric. Dr. DAVIS, of Chicago, Dr. JOHNSON, of New York, and others, have recommended the tincture of cimicifuga even in the early stages of Acute Rheumatism: we have but little acquaintance with the remedy as recommended by them, but, in circumstances as above, we speak from a reasonable amount of experience.

In that troublesome form of rheumatic disease, denominated Sciatica, we have succeeded in effecting a cure with strychnine, after the failure of almost every other known means.

For a fuller expression of our views of the pathology and treatment of inflammatory Rheumatism, we beg leave to refer the reader to the *American Medical Monthly*, for 1854, Vol. II., page 412.

FREWSBURY, N. Y., April 10th, 1858.

Editorial Department.

The Removal Question.

In the May No. of the PENINSULAR AND INDEPENDENT, it was stated that the question of the removal of the Medical Department of the University of Michigan from Ann Arbor to Detroit had been referred to a Committee of the Board of Regents, to be reported upon at the next meeting of that Body, during the present month, and, as our opinion on the subject has been asked by some members of that Committee, we shall take this opportunity and method of hastily expressing some opinions, deliberately formed, respecting it.

It was announced by one of our number, in the first issue of this Journal, that editorial opinions would be expressed over the signature of their authors, and while all are responsible for any violation of the rules respecting personalities, and the avoidance of subjects specially tending to personalities, etc., yet, aside from these rules, each would alone be responsible for the productions of his own pen. In the last No., one of the editors chose this method of expressing his opinion on the removal question, solicited by the Chairman of the Committee of the Regents having it in charge, and gave it as his individual view. In the same manner, and without involving any one else in the responsibility, the following is presented over the initials of the writer.

It is presumed that the subject of removal has been suggested by ideas connected with Clinical Instruction. In

regard to the importance of Clinical Instruction in a complete system of Medical Education, there seems to be no difference of opinion. If it were not self-evident that, by illustrations alone, can the highest practical lessons upon obscure and intricate subjects, like Medicine and Surgery, be communicated, the united testimony of the enlightened members of the Profession could but be considered as conclusive to those out of its ranks, seeking for information. Medical men, everywhere, are agreed, that true Clinical Instruction, where the student has pointed out to him by a competent teacher, *at the bedside of the sick*, the appearances described in didactic lectures and in books, and the cases followed up from day to day, watching their progress and the character and effects of treatment, *should*, wherever practicable, be made a requisite for full admission into the Profession, and the assumption of its responsible duties.

The different modes which have been attempted of furnishing this instruction, are by College Cliniques, by preceptors in private practice, and by experienced teachers in the wards of a hospital.

Though the College Cliniques, where patients are brought before a large class, and examined or operated upon at a distance from the students, are only imperfectly seen at long intervals, and often but once, afford some advantages, and are better than nothing, yet they meet the demands of true Clinical Instruction in the most imperfect manner, and furnish the least satisfactory results of any of the modes. Every authoritative expression on the subject from the Profession has been to the effect that they furnish no proper substitute for bedside instruction, and that, in many cases, they do positive harm, by deluding students with the impression that they have had proper practical instruction, when only a few features of cases have been most imperfectly exhibited. If the general expression of the Profession

on this point is to be regarded, nothing further need be said.

Instruction by preceptors in private practice has its advantages, as patients are seen in the conditions in which the student will meet with them when he enters practice; and if this mode of instruction could be fully carried out, and skillfully executed, it would be exceedingly valuable; but few private practitioners are fully qualified for the task of thorough systematic practical teaching, and a still less number have the time and inclination to perform it. It is well understood that students are not willingly admitted into private families, with a view of their instruction; they can only be introduced in particular cases; and, in short, the plan is impracticable in the present state of things, as a general means of Clinical Instruction.

The only remaining method of Clinical Teaching to be considered is that pursued within the wards of a properly regulated hospital. Here, alone, students can have free access to patients. Those patients, availing themselves of the benefits of a public charity, except to make to society, if possible, some return for the expenditure in their behalf; and, when treated with due regard to their personal feelings, and in accordance with the principles of humanity, they cheerfully submit to all necessary examinations by a class of respectful students. They, indeed, are frequently pleased with being objects of professional interest and the centre of scientific attraction. They appreciate the fact that their cases are undergoing the most careful investigation, and are gratified to think that they are likely to be thoroughly understood and skillfully treated. Here, too, numbers of the sick are brought together, comparisons are made, and different forms of disease are illustrated by numerous examples, the student tracing each case throughout its course, inspecting, when unfavorable in its termination, the morbid changes. Here alone can knowledge previ-

ously acquired be fully systematized and rendered practical, and all the details of management be learned, without danger to patients. In a respectable hospital, a student, in a single course of instruction and observation, obtains an experience in diagnosis and treatment, which, otherwise, he might not obtain in many years. If he be under proper instruction, he forms habits of thoroughness and systematic accuracy, which he would be most likely never to acquire without such aids. It must then be admitted that, with a few exceptional cases, from hospitals alone will men go forth fully prepared for the responsible duties of the Profession, and ready, from the first, to meet the more perplexing cases which may occur.

In the recent Report on Medical Education, presented to the American Medical Association by Dr. J. R. Wood, chairman of a Special Committee, and apparently meeting with its unanimous approval, it is, in substance, stated that "the Hospital should be immediately acknowledged by the schools as embracing a part of their curriculum of study, and it should be required of the candidate for graduation that he should have attended a course of such instruction."

Admitting, then, that Hospital Clinical Instruction is a necessity to a Medical School of a high order, or of even a proper character (and to question this would be to oppose the universal sentiment of the Profession), what are the relations of this view to the question of removal to Detroit of the Medical Department of the University?

In approaching this question, so delicate in its character, and involving so many considerations, it must be remembered that the Medical College is a department of the University of Michigan, and not a separate and distinct institution of itself. If it were a distinct institution, and the question should arise as to the place of its establishment *de novo*, probably not a sane man in the State, uninfluenced by personal interests or feelings, would point to any other locality than Detroit.

The reasons why all would do so, are obvious. Here is the only place in the State where hospitals exist, and it would certainly be more convenient to have all parts of instruction connected with a Medical School conducted in one locality. If the Clinical instructors were also teachers in the other or more primary departments, their convenience would certainly be promoted by having their work all in one city, and it would save students the necessity of removing from one place to the other. Without adducing any other considerations (though many more might be suggested) there would be, in a larger city, a field of practice and observation, which would be likely to secure and retain to the University a higher order of teachers than might be induced to live in a small town, or even would be willing to transport themselves from one place to the other; and a larger and better class of students would be induced to attend the Medical College, including the Clinical Course, when all was located in the same place. These propositions need neither argument or illustration, — their simple statement is regarded as sufficient.

But, as already suggested, the Medical School is a department of the University, and the Regents, as guardians of the whole Institution, must consider the question of removal in reference to its influence upon the whole. The only question on the subject must be in reference to this view. There can be none with any other. Here there may be honest differences of opinion. It is thought by some that the unity and integrity of the University as a whole will be impaired, and its general strength will be diminished by entirely removing the Medical Department from Ann Arbor. It is not specifically stated as we are aware of in what manner the Department of Sciences and Arts will be interfered with by having all the Medical lectures delivered in Detroit, but it evidently disturbes the

ideal of unity which exists in some minds, and the thought is worthy of consideration.

Besides this, it is alleged, and with the utmost truth, that when students are listening to four or more lectures a day in the systematic course, on as many elementary subjects, which must be thoroughly learned, and especially if attending to Practical Anatomy or Chemistry, and are engaged, as they should be, in occasional medical composition they no time to devote to hospital instruction, which should of itself occupy several hours every day, to render it of the highest value. It is, then, with much plausibility alleged, that the Clinical Course should be attended during the interval of the other lectures, and certainly, as it regards each student, he must attend to Clinical Instruction when he is not fully occupied with other studies, or some of them will be neglected. A short time, mainly given to clinical pursuits, will secure greater improvement, than a long period of casual and imperfect application, such as occurs in most of the European schools. Yet there would be decided advantages in having the hospital and the college located near each other, as with a proper division of the time of the students, the whole course might be progressing at the same time, and by continuing the hospital instructions the whole year, more students could experience their advantages. Economy of material, in small hospitals, should be practiced, as comparatively few, at any time, can be present in a ward with full benefit to the students, and without serious annoyance and injury to the patients.

It would doubtless, then, be more convenient, both to professors and students, and hospital instruction could be rendered available to a much greater extent, by having the Medical College in Detroit, and continuing the instruction throughout the year; yet, much useful Clinical Instruction may be given by arrangements already adopted, especially if further perfected and extended, and if attendance upon that

course be made a requisite for graduation. Clinical Instruction will, in too many instances, be neglected, if left to the voluntary choice of students.

In a recent visit to the Medical Emporium of our country, where full one thousand students were, during the sessions of the Colleges, in attendance upon medical lectures, only about a dozen were regularly giving daily attention in the wards of its excellent hospital! Those subjects of study which are not insisted upon as essential to a degree, most students will neglect.

In conclusion, we must say, that in the abstract question of location, and so far as the interest of the Medical Department of the University is concerned, we can have no hesitancy in pronouncing in favor of Detroit.

The particular circumstances of the case as they exist—the difficulties, pecuniary, legal, and ideal in effecting the removal, and its influence upon the University as a whole, should, as they doubtless will, be fully considered by those having the responsibility of action in the case; and to that action we shall cheerfully submit. We have endeavored to look upon the subject in a spirit of candor, and have intended to express our views independent of personal interests; and, however they may be regarded by any at the present, we have no doubt of their receiving ultimate assent. If the Board of Regents shall conclude that they would not be justified at present in acting in the case, our efforts will not be abated in accomplishing all that is possible in the present state of things; and much can be accomplished in maintaining the institution in the high and advancing position it already occupies. A. B. P.

Clinical Instruction.

In the last No. of this Journal, we ventured to predict that the Report of the Special Committee on Medical Education, in the National Medical Association, would

take high ground in favor of demanding attendance upon a fully organized course of Clinical Instruction, as one of the *conditions* of graduation. We should be glad to lay before our readers the whole Report, but want of space prevents, and we can only make the following quotation, which fully sustains our position. By reference to the leading editorial (Dr. PALMER'S) it will be seen that the Report appeared to meet the 'unanimous approval' of the Association.

G.

In addition to the present requirements of our schools, there is one *which the time has come for the Profession to demand.* We allude to attendance upon a Clinical course in a hospital.

Clinical instruction must be considered the great *desideratum* in any system of medical education. It affords the only means by which the student can *safely* apply the knowledge which he has obtained from the Schools to the practical realities of his professional life. At the bedside, and under the immediate instructions of his clinical preceptor, he systematizes his knowledge, and familiarizes himself with all the details of practice. . . . .

FROM OUR HOSPITALS ALONE *can men go forth to the responsible and perplexing duties of the Medical Profession, thoroughly prepared, from the first, to meet the most trying exigencies.* . . . .

Nor are the students unmindful of the advantages of clinical instruction. Within our own observation, hospitals situated in the vicinity of schools, and offering clinical advantages, are constantly attended by students, and oftentimes at the expense of their regular college lecture. We may refer, not invidiously, to the fact that Bellevue Hospital of New York, which has an annual course of clinical lectures, has frequently in attendance a class of 300 to 400 students.

Re-fitting of Drug Stores.

Those of our readers who may design re-fitting their stores or offices with Glass Furniture and *new Labels,* are referred to Mr. HALE, of New York, and Messrs. GREENUS & MANFRED, of Cincinnati, whose addresses will be found at the end of the Journal. The art of labeling in gold and colors upon the *inside* of jars was, until within a few years, confined to England alone, Mr. HALE, we believe, being the first to institute this branch of industry in the U. States.

Pharmaceutical and Miscellany.

Glycerole of Lactucarium.

The acknowledged value of Lactucarium, as an anodyne and sedative, where opium and its salts are objectionable from idiosyncrasy of the patient or peculiarity of the disease, has led to the proposal, by various Pharmaceutists, of several formulæ, whereby its virtues might be held dissolved in some convenient and agreeable vehicle. To all such as are laid down in the books there exists more or less objection; such as want of permanence, too great dilution, excess of alcoholic menstruum, or disagreeable taste.

The writer, in view of the value of this sedative in calming nervous irritation, and especially in allaying cough in phthisis and other pulmonary affections, suggests the following formula for a fluid preparation of it —a Glycerole, as preparations are now termed of which Glycerine forms a large portion of the menstruum. It is, yet, not certainly known in which constituent of Lactucarium, the active medicinal principle resides, if we are to judge by the differing results which those chemists have arrived at who have made the investigation of the subject a special study. The following process is based upon the assumption (warranted by the analyses of Aubergier) that all of its active matter is soluble in water, alcohol, and glycerine:

Take of Lactucarium, one ounce (troy); reduce it to a moderately fine powder; moisten it with one fluid ounce of diluted alcohol, and pack it into a small displacement apparatus (which may be made from a piece of inch glass tubing, or, what is better, a six ounce glass syringe). After remaining twelve hours, pour upon it, gradually, diluted alcohol, until the filtrate measures sixteen fluid ounces, or until the fluid passes without sensible taste of bitterness; evaporate this filtrate upon a water bath nearly to dryness, or to the consistence of an extract; then treat this residue with six fluid ounces of boiling water, continuing the heat for a little while; after which pour it off from the undissolved residue into a filter placed in a bottle containing twelve fluid ounces of pure Glycerine. Repeat this operation with four fluid ounces of water added to the undissolved residue of the extract; then evaporate the whole upon a water bath to fourteen

fluid ounces, and when cool, add two fluid ounces of orange-flower water, in which has been dissolved fifteen grains of citric acid.

This Glycerole is of a pale amber color, of a slightly bitter taste, the odorous principle being covered and modified by the flavoring, and the cloying taste of sweetness overcome by means of the acid.

Each fluid ounce represents one-half drachm of Lactucarium. The dose is, for an adult, from one to two or three teaspoonfuls, representing three and three-quarters, seven and one-half, and eleven and one-fourth grains of Lactucarium. F. S.

Ampelopsis Quinquifolia (American Ivy—Virginia Creeper)

Has recently been recommended by Dr. J. McCall, in the *Memphis Journal of Medicine*, as a remedy for dropsy. This is a new use for it, it having been heretofore valued only for its tonic and expectorant properties. It is recommended to collect the bark of the vine late in autumn. Dr. McC. states that it stimulates absorption, and the elimination of matter through all the outlets of the system, rather than to act upon any one secretion. He employs it in infusion and decoction.

Anthemis Nobilis (Roman Chamomile)

Is recommended by M. Ozanam in serious suppuration. He states that its

Great and precious virtue, is that of preventing suppurations, when the evil has not advanced too far, and of drying them up when they have existed for a long time.

For this purpose the medicament is administered in large doses; an infusion of 5, 10, or even 30 grammes of flowers to one quart of water to be drank during the day, until the cure is complete. Moreover, the remedy may be applied locally by means of compresses soaked in it. This sustains the medical action, but does not cause the principal effect, since that can be perfectly developed either with or without local application. Thus this property of Chamomile must be regarded as arising from a general action on the economy, and not as the result of a local action.

M. Ozanam details the results of several cases, as follows:

First Case (May and June, 1849).—A man, aged thirty-three. Phlegmonous erysipelas of the face and scalp. Five enormous abscesses, denuding all the bones of the cranium, which were covered with a cap of pus; a sixth abscess was formed at the angle of the lower jaw; continuous delirium, and violent fever (pulse 140), complete prostration of strength; employment of Chamomile the twenty-eighth day (30 grammes per day), suppuration increased for the first few days; I decreased the dose to 15 grammes, rapid diminution of suppuration at the end of twenty days' treatment, the patient left completely cured.

Second Case (July to November, 1849).—A man, aged thirty-five. Phlegmonous erysipelas of the foot, leg, and thigh. Fourteen successive

abscesses, very soon communicating together, for the length of more than 60 centimetres (about twenty-four inches); denudation of the bones of the foot, of the tibia, and of the femur; enormous suppuration; and at the end of three months, the patient was in a completely cachectic state; amputation of the thigh was proposed as a last resource, but the patient refused. I then commenced the employment of the Chamomile (30 grammes per day); return of strength, progressive diminution of suppuration, the flesh was sustained by systematic compression; cure at the end of six weeks, without any other treatment.

Third Case (May, 1855).—A man, aged twenty-six. Obstinate intermittent fever, of the Campagna of Rome, of nine months' standing: Crisis by an abscess on the right flank, as large as the head of a child two years old. I opened it with a bistoury; very abundant suppuration; Chamomile in large doses (30 grammes per day); after eight days, two violent fits of intermittent fever, which had disappeared to give place to a continuous fever from the time of the appearance of the abscess. The treatment was interrupted for a few days, and then resumed in the dose of 15 grammes per day; cured at the end of three weeks.

Fourth Case (December, 1855, January and February, 1856).—A man of twenty-two. Malignant typhoid fever; left pleurisy the twenty-first day; hæmoptysis and right pulmonary apoplexy the twenty-fifth day; suppurated right pneumonia the thirty-second day; expectoration of pus to the amount of 150 grammes per day; hectic fever, with profuse perspirations; employment of Chamomile in moderate dose, owing to the weakness of the patient (15 grammes per day); and local applications to the chest; return of strength; progressive diminution of suppuration; cure at the end of twenty-five days.

This valuable faculty of drying up suppurations, deserves to be tried on a large scale, for we have in medicine very few remedies efficacious in such cases. Chamomile, in large doses, will be indicated in the purulent diathesis of amputations, in puerpural fever, in phlegmonous erysipelas, in fact, in every case in which it is desired to prevent too abundant or too long continued suppurations. Sometimes, as in the first case, the cure is preceded by a transient aggravation of the evil; this recrudescence, which is a medicinal effect, should not discourage, but shows only that the doses should be diminished so as to arrive at a more general cure.

[*American Journal Pharmacy*, from *Comptes Rendus*.

Sulphuric Acid and Sulphate of Zinc as a Caustic.

Henry Thompson (*London Lancet*, Jan., 1858), proposes the following:

Sulphate of Zinc, freed from its water of crystallization, by drying it in an oven, is mixed with sufficient strong Sulphuric Acid, to make a mass of such a consistence that it will not spread beyond the spot on which it is placed. This mixture is kept in a stoppered bottle, and applied with a glass spatula or rod. Before using it, the parts which it is desired to protect from the action of the caustic, are covered by a thick layer of simple cerate, or other hard ointment, so arranged as to form an embankment around the spot to be cauterized. The caustic is laid upon the surface to be destroyed, to the depth of from one-eighth to one-tenth of an inch, and is allowed to remain.

Sulphuric Acid, in the destruction of living tissues, mainly acts upon the organized matters, its tendency being to combine with the water con-

tained therein, leaving the carbon free, which forms a black eschar. The dried Sulphate of Zinc serves, therefore, to preserve the acid in its concentrated form—in a pasty condition—adding, by its own action, increased caustic force.

Azederach Bark, U. S. P.

Is employed in India as a febrifuge, with success, the inner, light colored bark being considered the best, the taste being at first sweet, and followed by a decided and lasting bitter. It has been employed at the south, heretofore, as an anthelmintic only.

Report of Proceedings of the Eleventh Annual Meeting of the American Medical Association, held at Washington, D. C., commencing May 4th, 1858.

The Association met in the Lecture-Room of the Smithsonian Institute, and was called to order by Dr. Condie of Philadelphia; when the President, Dr. P. F. Eve, of Tennessee, took the Chair being supported by Vice-Presidents Breckenridge, of Kentucky, Reese, of New York, and Campbell, of Georgia; Drs. Foster, of Tennessee, and Semmes, of Washington, acting as Secretaries.

By invitation of the President, Rev. B. Sunderland, D. D., offered an appropriate prayer.

Dr. Harvey Lindsley, of Washington, Chairman of the Committee of Arrangements, delivered an Address of Welcome, as follows:

Mr. President, and Gentlemen of the American Medical Association: In behalf of the Medical Profession of the District of Columbia, I proffer you a cordial and hearty welcome to this, the political metropolis of our common country. It would have been highly gratifying to us to have done this several years since, if it had been consistent with the claims of other more favored places, for you then to have accepted our invitation so cordially extended to you, to meet in Washington.

It is now some twelve years since the organization of your Association, and the Annual Meetings which, during that period, have been regularly held in every part of our extended country, have been re-unions of kindred spirits, at once pleasant and instructive. Harmony has ever characterized your proceedings. Assembling from the remotest sections of the republic—from the Kennebec to the Rio Grande—from the Atlantic coast to the El Dorado of the West—you have met, as men devoted to the pursuit of science and philanthropy should always meet, in a spirit of union and concord.

You have left for a few brief hours the toils and privations of a laborious Profession, in order, by a concentration of effort and interchange of opinion, to enlarge the boundaries of science and extend the usefulness of your calling. You are determined not to lag behind in this age of progress and discovery. You are resolved to effect every thing that the most resolute determination and the most persevering industry can accomplish for the promotion of knowledge and the good of mankind. Each revolving

year witnesses important discoveries in Physiology and Medical Chemistry, useful additions to our Materia Medica, new and valuable appliances and operations in Surgery, more correct and philosophical views of disease, and, most important of all, improved modes and greater skill in its treatment.

You will return from these annual gatherings with fresh spirits and renewed hopes—with greater zeal and enlarged facilities for the advancement of your Profession, and with redoubled energy to bear the sacrifices and endure the labor which its successful prosecution demands. Yours is emphatically a Profession of self-denial and self-sacrifice. Much of your time is devoted to the care of patients, where your only reward is the consciousness of duty discharged and of suffering relieved. You visit, with equal solicitude, the humble and the elevated—the hovels of the poor and the mansions of the rich—"*Pauporum tabernas, regumque turres.*"

We have not much, as yet, in our young and growing city to claim the attention of the votary of Medical Science. We have no hospitals with extensive wards and ample endowments, enriched by the benefactions of the benevolent and the accumulated wealth of centuries; no ancient and venerable universities, with extensive apparatus, splendid museums, or immense anatomical collections, to interest and instruct you. We have done, however, what we could, and whatever we have is open to all, without restriction of sect or locality. But the day is not far distant, we trust, when, by the liberality of a great people, our public buildings, our literary and scientific institutions, our national parks and botanic gardens, will be worthy of the grand metropolis of a nation which, perhaps, within the next half century, will be the most populous, powerful, and wealthy in Christendom. [Applause.]

But, whatever may be our deficiencies, we can at least present you one spectacle which can be witnessed nowhere else—a sight worth a pilgrimage from the remotest bounds of the republic;—we can show you the home of Washington—that Mecca of the American people, to which every patriotic heart will ever turn with sentiments of devoted affection and filial reverence. [Applause.]

Again, Gentlemen, we welcome you to the hospitalities of our firesides, and the still warmer affections of our hearts.

The Secretary called the roll of members by States, when an unusually large number was found to be present, almost every State in the Union being represented.

From Michigan, Drs. Z. Pitcher, P. Klein, A. Sager, —. Timons, L. Davenport, and A. B. Palmer were present.

The Committee of Arrangements reported that a Business Session should be held each day from 9 A. M. to 3 P. M. Adopted.

It was announced that the President of the United States would receive members of the Association, together with such ladies as might accompany them, in the evening, at 8 o'clock.

A recess was taken for the appointment, by the delegates from each State, of one of their number as a member of the Nominating Committee.

On coming to order, the following were reported as the Committee of Nomination:

Job Holmes, Maine; George H. Hubbard, New Hampshire; P. Pineo, Vermont; Ebenezer Alden, Massachusetts; Ashbel Woodward, Connecti-

cut; J. Mauran, Rhode Island; H. D. Berkley, New York; J. P. Colman, New Jersey; Isaac Hays, Pennsylvania; H. F. Askew, Delaware; S. P. Smith, Maryland; Noble Young, District of Columbia; A. S. Payne, Virginia; W. H. McKee, North Carolina; Wm. T. Wragg, South Carolina; Joseph P. Logan, Georgia; J. T. Hargraves, Alabama; R. J. Breckinridge, Kentucky; J. Berrian Lindsley, Tennessee; Wm. M. McPheeters, Missouri; George Mendenhall, Ohio; Calvin West, Indiana; A. H. Luce, Illinois; Zina Pitcher, Michigan; Thomas O. Edwards, Iowa; O. Harvey, California; and George Clymer, United States Navy.

Previous to the recess, Dr. Pitcher, of Michigan, moved that the Army and Navy be entitled to a representation on the Nominating Committee; which motion was carried.

On motion, Drs. Bohrer, of District of Columbia, Flint, of New York, and Hargraves, of Alabama, were appointed by the President a Committee on Special Essays.

The President then announced that one of the Vice-Presidents, Dr. Reese, of New York, had a communication to make to the Association.

Dr. Reese then read the following apology, relating to his recommendation of Dr. McClintock, of Philadelphia, to a position, while under sentence of expulsion from this Body, for selling secret medicines, &c.

To the Officers and Members of the American Medical Association:

The undersigned, one of the Vice-Presidents of the American Medical Association, having, during the interval since our last Annual Meeting, certified to the professional fitness for the charge of the Blockley Hospital, at Philadelphia, of an individual who had been expelled from this Body for a violation of our code of ethics, after consultation with the other officers, and yielding to the advice of other personal friends, desires to say to the Association now assembled,—

1st. That, in giving said certificate, he was prompted solely by motives of sympathy and humanity to a fallen brother, who had been a personal friend prior to his offense; and that he did not realize, acting under the impulse of the moment, that his individual act could be construed by the Profession as indicating hostility to his brethren.

2d. That, while his own mind is clear that his certificate contained only the truth, and that, under his peculiar relations to the party concerned, he could not withhold his certificate of medical qualification, consistent with conscience and duty, yet he is ready to concede that he had no abstract right to relieve the party from the censure of the Association, until this Body had restored him to his fellowship.

3d. That, so far from intending any disrespect to the Association, or to its act of discipline, the undersigned had publicly sustained and defended both. He, therefore, disclaims the inference from his certificate that he intended to recommend to a high professional office a man whom the Association had excluded, and thereby nullify the action of this Body.

And, finally, with these statements and disclaimers, the undersigned, while retaining his own opinion of the rectitude of his motives, and of his duty, under the peculiar circumstances of the case, is nevertheless prepared to defer to the judgment of those whom he knows to be his friends, that he erred in doing what he had no right to do, in view of his official po-

sition in the Association and the Profession, and is hence called upon to offer this explanation and apology to his brethren.

(Signed) DAVID M. REESE.

Dr. Condie, of Philadelphia, moved that the apology be accepted, and entered upon the Minutes of the meeting. After a very brief discussion, the motion was carried.

Dr. Bryan, of Philadelphia, who had also recommended Dr. McClintock, made a verbal adoption of Dr. Reese's apology, the reception of which was warmly debated.

Dr. C. C. Cox, of Maryland, opposed, and Dr. Condie advocated, the reception.

Dr. A. B. Palmer, of Michigan, stated that several members of the Association had interested themselves in this matter, and had been endeavoring to have it so arranged as to avoid a discussion, which, it was feared would be very much protracted and very warm, if not resulting in serious injury to the Association and the Profession, and Dr. Reese had made an apology which the Association had just decided satisfactory. Dr. Bryan's offense, no one claimed, was more grave than Dr. Reese's—he had fully adopted Dr. Reese's apology, and certainly he was entitled to be treated in the same manner. To prevent further discussion, which could result in no good, he moved the previous question.

This was sustained; and the motion to accept of the apology of Dr. Bryan was carried.

The President then delivered, in an impressive manner, his Annual Address, which was listened to with much attention, and several times heartily applauded. After referring to the circumstances under which the Association was assembled,—"in this magnificent temple, furnished and dedicated by a generous foreigner to science; in the presence of that towering monument, designed to commemorate the worth of him ever enshrined first in the hearts of his countrymen; surrounded by the glorious recollections constantly associated with this government,"—he proceeded to speak of the objects of the Association, and the labors they had performed.

The following extracts will show something of the spirit, as well as the manner of the Address:

The grand object of a convention of the physicians of the United States, held the previous year in the city of New York, was carried into effect in Philadelphia, May, 1847, by organizing this Association; and just ten years ago, the first general assembly met in Baltimore. Since then, annual meetings have been convened in our large cities for the transaction of business, and the Proceedings regularly published each year. Ten large octavo volumes now comprise the Transactions of the American Medical Association, being the contributions of its two thousand members, delegated to represent the medical institutions of thirty States and Territories.

As set forth in convention, the ultimate purposes of this Body are to

cultivate and advance Medical Knowledge; to elevate the standard of Medical Education; to promote the usefulness, honor, and interests of the Medical Profession; and, collaterally, to enlighten and direct public opinion in regard to the duties, responsibilities, and requirements of Medical Men; to excite and encourage emulation and concert of action in the Profession, and to facilitate and foster friendly intercourse between those engaged in it.

In carrying forward these desirable changes, embracing as they do Medical Science, Medical Education, and Medical Ethics, no one believes that we have done every thing demanded for the good of the Profession, or that all our great designs could have been attained in the brief space of ten years. The work assumed by the Association, it was well known, would take time, labor, and united efforts. It comprehended higher requisitions for admission into a learned profession; prescribed the course of instruction; demanded a separation in the teaching and licensing power; proposed a code to regulate the intercourse between physicians, their patients, and the public; and claimed that every one within its pale should assiduously cultivate the Science of Medicine, and promote its best interests. And however extensive or radical may have been these contemplated plans, still, on the whole, it can safely be assumed that the American Medical Association has been no failure.

It has advanced Medical Knowledge, and promoted the usefulness of the Medical Profession. There will be found in the ten volumes of its printed Transactions the results of the meetings held in Baltimore, Boston, Cincinnati, Charleston, Richmond, New York, St. Louis, Philadelphia, Detroit, and Nashville, that no less than three hundred pages are devoted to Medical Education; over five hundred to Hygiene, including the sanitary condition of many of our large cities; six hundred to Botany and Indigenous Plants; one hundred and fifty to Obstetrics; four hundred to Medical Literature; seven hundred and fifty to Medical Science proper; more than a thousand to Surgery; and two thousand to Practical Medicine, including the Epidemics and Prevalent Diseases of nearly every State in the Union.

Special Reports have been made from Committees appointed for the purpose, on the effects of the anæsthetic agents, ether and chloroform; on the influence of tea and coffee on the diet of children and the laboring classes; on the supposed influence of the cerebellum over the sexual propensities; the results of operations for the cure of cancer; the introduction of water and gas into cities; two Reports on the blending and conversion of types of fever; the action of water on lead pipes and the diseases proceeding from it; reflection of the uterus; a nomenclature of diseases adapted to the United States, having reference to a general registration of deaths; the sources of typhus fever, and the means of their extinction; the permanent cure of reducible hernia; the topical use of water in surgery; the agency of refrigeration by radiation of heat as a cause of disease; the results of surgical operations in malignant diseases; the acute and chronic diseases of the neck of the uterus; the nature of typhoid fever; coxalgia, or hip-joint disease; the treatment of morbid growths within the larynx; the sympathetic nerve in reflex phenomena; the medical and toxicological properties of the cytogamic plants of the United States; erysipelas; the influence of the hygrometrical state of the atmosphere on health; the diet of the sick; pathology, causes, symptoms, and treatment of scrofula; the preservation of milk; the effects of alcoholic liquors in health and diseases; hydrophobia; the changes in milk produced by menstruation and pregnancy; the sanitary police of cities; treatment of cholera infantum; use and effects of nitrate of silver applied to the throat; strychnine; infant

mortality in large cities, the sources of its increase and means of its diminution; medico-legal duties of coroners; new principle of diagnosis in dislocation at the shoulder joint; the flora, fauna, and medical topography of Washington Territory; the nervous system in febrile diseases, etc., etc.

Prizes have been awarded by the Association to the authors of the following essays, viz:

"On the Corpus Luteum of Menstruation and Pregnancy," for 1851.

"On the Variation of Pitch in Percussion and Respiratory Sounds in Physical Diagnosis," for 1852.

"On the Cell; its Physiology, Athology, and Philosophy"; and "On the Surgical Treatment of certain Fibrous Tumors of the Uterus, heretofore considered beyond the Resources of Art," for 1853.

"On a New Method of Treating Ununited Fractures and Certain Deformities of the Osseous System," for 1854.

"On the Statistics of Placenta Prævia," for 1855.

"On the Physiology and Chief Pathological Relations of the Arterial Circulation," for 1856.

"On the Excito-Secretory System of Nerves; Its Relations to Physiology and Pathology"; and "On Experimental Researches in Relations to the Nutritive Value and Physiological Effects of Albumen, Starch, and Gum, when singly and exclusively used as Food," for 1857.

Carefully prepared Reports have been published by the Association of the various epidemics and diseases which have prevaled during the past ten years throughout our widely-extended country, and the mortuary statistics and public health of our large cities minutely ascertained. Charts, maps, diagrams, tables, and plates have been freely employed to illustrate these subjects so important to the general welfare of the people. Every State and Territory, every large city and sick community, with scarcely an exception, has had its hygienic condition explored by this Body; and dysentery and cholera, typhoid and yellow fevers have specially claimed the attention of our members. The communications on deformities after fractures, found in our eighth, ninth, and tenth volumes, constitute the basis of the best monograph ever issued from the press. This work, it may be predicted, will do more than all others to check the reckless and speculative spirit of suits for mal-practice against medical men; for, in addition to teaching a useful lesson to the Profession in the prognosis of fractures, its testimony is so conclusive in reference to the usual results of these accidents, that judicial decisions must hereafter be regulated by it.

Besides these contributions to Medical Knowledge, this Association has taken action to prevent the importation into our country of "worthless, adulterated, and misnamed drugs, medicines, and chemical preparations"; for which a member of the United States Senate has publicly declared that if we had accomplished nothing else, this alone should have entitled us to the gratitude of the nation. It recommended to the different States the adoption of a regular system of registration of births, marriages, and deaths; memorialized Congress to secure steerage passengers in our emigrant vessels medical attention, and due amount of space between decks; appointed a Committee to ascertain the best means of preventing the introduction of diseases by emigrants into our large cities; and considered many interesting individual cases.

The Address closed with the following paragraphs:

We have seen, Gentlemen, how much this Association has achieved in its infancy to elevate honorable Medicine. A wide field for scientific investigation is before us; much territory still remains to be redeemed; the

wilderness is yet to blossom as the rose, and the leaves to be gathered for the healing of nations. The hygienic condition of the nation, of such immense interest to our people—that first, all-important question, ever before the Profession—the prevention of disease—is to be improved. We are to search after truth, and when it is found, it is to be generously employed for the good of mankind. The work is a self-sacrificing and benevolent one, but it is grand and sublime, even God-like; for it has to do with pain and disease, life and death; and we rejoice to know that, whenever or wherever called upon, the members of our Profession and of this Association have never failed in any duty, and have been faithful to the end. Yea, many of them have stood alone between the living and the dead, and cheerfully laid down their lives to stay the pestilence and destroyer.

The very waters at our feet, as they sweep onwards to the ocean, pass in sight of a city, where, three years ago, no less than four-fifths of our Profession in that community, swelled, too, as their ranks had been by volunteers from this Body, fell manfully contending with disease and death. And on a late occasion, when one of our steam-packets, having been injured by a collision, went down in an instant, carrying every soul on board into the depths of the ocean, among the passengers was a member of this Association; to the inquiry where was he during the heart-rending scenes of a sinking ship, freighted with human lives, promptly came the affecting and sublime eulogy from one who knew him well, that so long as a woman or child remained unprovided for he never left the ill-fated Arctic. How near akin was his gallant spirit to that of him, who, during a subsequent and similar occurrence, after seeing every woman and child committed to his care safely rescued from his foundering bark—after sending the last parting message to his family, and discharging every duty without one lingering ray of hope, calmly assumed his commanding position on the deck of his vessel, and as she glided from under him into the yawning billows, instinctively uncovered to meet his fate and his God. While the wild waves are sighing a requiem over the unseen burying places of these illustrious dead, the benedictions of a grateful people are continually ascending over the forty graves of the martyred heroes of Norfolk. These were our companions, who died in the noble service of that calling, to promote the best interests of which has assembled us together.

Gentlemen of the American Medical Association, we have convened for important purposes—great events are before us—the interests of humanity are here—the hopes of the Profession are in this meeting—the eyes of the Medical World are upon us. May we then so act in view of surrounding circumstances, that "The skill of the physician shall lift up his head; and in the sight of great men he shall be in admiration."

On motion, the thanks of the Association were voted to the President for his able and instructive Address, a copy of which was solicited for publication.

Dr. Grafton Tyler, of Georgetown, D. C., Chairman of the Committee on Prize Essays, reported that the essays received were three in number, each of which had been examined with great care; considering, first, the intrinsic merits of each essay, and then their merits in relation to each other. The first prize was awarded to "An Essay on the Clinical Study of the Heart-Sounds, in Health and Disease," bearing the motto, "*Clinica, clinice, demonstrandum.*" The second prize was awarded to "An

Essay on Vision and some of the Anomalies as rendered by the Opthalmiscope," bearing the motto, "*Dux hominum medicus est.*"

Dr. Tyler then proceeded to open the sealed envelopes bearing the above named mottoes, and containing the names of the writers of the essays. The first was written by Dr. Austin Flint, of Buffalo, New York; and the second by Dr. Montrose A. Pallen, of St. Louis, Missouri.

On motion, the report of the Committee was accepted and adopted. Doctors Flint and Pallen were then invited to give *resumés* of their essays, which they did.

Dr. Lindsley, from the Committee of Arrangements, then presented an invitation from Dr. Nichols to visit the Insane Asylum, and another from Rev. Mr. McGuire to visit Georgetown College.

On motion of Dr. Hamilton, of New York, these invitations were accepted, and the thanks of the Association were returned therefor.

On motion of Dr. Lindsley, the Hon. Doctors Fitch, of Indiana, Chaffee, of Massachusetts, Clawson and Robbins, of New Jersey, and Shaw, of North Carolina, members of Congress, and Dr. Peter Parker, Ex-Commissioner to China, were elected "members by invitation," and requested to participate in the proceedings of the Association.

On motion, Assistant-Surgeon Frederick A. Rose, of the British Navy, who so nobly volunteered his services on board the United States ship Susquehanna at Port Royal, and who came in her to New York, devoting himself to the sick crew, was unanimously elected a "member by invitation," and invited to take a seat upon the platform. [Applause.] It was announced that Dr. Rose had left the city.

Dr. Francis G. Smith, of Philadelphia, Chairman of the Committee on Publication, made his Report, showing the expense of publishing the annual volume.

Dr. Caspar Wistar, of Philadelphia, presented his Annual Report of receipts and expenditures, showing a balance on hand of $806. Accompanying the Treasurer's Report was a resolution providing that the back volumes on hand, when over two years old, shall be sold at two dollars a volume, and that volumes V., VII., VIII., and IX., of which there are a surplus, be sold at $5 a set.

The Standing Committee on Medical Education, of which Dr. G. W. Norris, of Pennsylvania, was Chairman, was called upon for a Report. No response being made, the subject of continuing the Committee was referred to the Committee on Nominations.

Dr. A. B. Palmer, Chairman of the Committee on Medical Literature, asked leave to defer his Report until Wednesday, at 10 o'clock; which was granted.

A Report was made by the Committee on Nominations, which was accepted; and the Association then elected the following officers:

President, Dr. Harvey Lindsley, of Washington City.

Vice-Presidents, Drs. W. L. Sutton, of Kentucky; Thomas O. Edwards, of Iowa; Josiah Crosby, of New Hampshire; and W. C. Warren, of North Carolina.

Secretary, Dr. A. J. Semmes, of Washington City.

Treasurer, Caspar Wistar, of Philadelphia.

On motion, Drs. Flint, of New York, Grose, of Pennsylvania, and Gibbes, of South Carolina, were appointed a Committee to conduct the President-elect to the Chair.

Dr. Lindsley, having been introduced to the Association, by the retiring President, Dr. Eve, made a few pertinent remarks, acknowledging the honor as the highest he had ever been called upon to receive, and the highest that any medical man in America can receive. [Applause.] Unaccustomed to preside over so large a body, and having had but little practice in presiding over smaller assemblages, he must throw himself upon the forbearance of the Association, and look to the members for support in the discharge of his official duties. [Applause.]

On motion, the thanks of the Association were voted to the retiring officers, for the able and impartial manner in which they have discharged the duties of their respective offices. [Applause.]

On motion, the Ex-Presidents of the Association present were invited to take seats on the platform.

The Committee on Medical Topography and Epidemics was called by States.

A paper from the member from Maine stated that he will report next year. There was no response from New Hampshire, Vermont, Rhode Island, Connecticut, or Massachusetts. Dr. Smith, of New Jersey, read an able Report on New Jersey.

And the Association then adjourned until the next morning, at nine o'clock.

Evening Hospitalities.

At eight o'clock in the evening, the delegates and the ladies who accompanied them, paid a visit, by invitation, to the Executive Mansion. The East Room, with the adjacent suite of drawing rooms, were brilliantly lighted, and were filled by about five hundred gentlemen, representing all sections of the country, and a hundred or more ladies. One of the delegates had seen upwards of fourscore years—others had but just entered upon the practice of their Profession.

The President received his guests, as they were successively presented by Dr. Cornelius Boyle, Chairman of the Committee of Arrangements, with his accustomed cordiality, and afterwards moved about in the East Room, engaging in conversation with the groups there gathered. The entire cabinet was present, with J. B. Henry, Esq., Marshal Selden, and Commissioner Blake.

From the Executive Mansion, the delegates generally proceeded to Georgetown, where they were hospitably entertained at the residences of Dr. Grafton Tyler, at the corner of Gay and Washington streets, and of Dr. Riley, No. 91 Gay street. A cordial welcome and good cheer awaited them at the houses of each of these distinguished practitioners.

Second Day.

The Association was called to order by the President, and the Minutes were read by the Secretary.

Dr. Atkinson, of Virginia, proposed, as an amendment to the Constitution,—

That no person shall be recognized as a member, or admitted as a delegate, at meetings of the Association, who has been expelled from any State or Local Medical Society, until relieved by action of that Society.

This was laid over, under the rule, until next year, for action.

The Report on Medical Literature was then read in part, the following notice of which is taken from the Washington *Union:*

"Dr. A. B. Palmer, of Michigan, Chairman of the Committee on Medical Literature, made an able and interesting Report. After noticing in detail the periodical literature of the country, the spirit manifested in the editorial department of our Medical Journals is characterized as being (with a few exceptions) liberal, honorable, courteous and just; and the feelings of fraternity are generally cordial and warm. Differences of opinion must be expected occasionally to exist, and different interests will sometimes come in collision; and, while this is the case, the imperfections of our common nature will be likely to produce some unpleasant results. But the bond of union produced by an interest in a common cause, and that cause so noble as the advancement of a great and benevolent Profession, should certainly, as it usually does, smooth down asperities, and preserve that courtesy and kindness which ever should exist between gentlemen and brethren. From the contentions existing between the different portions of our common country, and which have so deeply affected the Political, the Religious, and the Literary Periodicals, the Medical Journals, with scarcely an exception, have kept aloof; and it is devoutly to be hoped that the influence of this portion of the Press, combined with the harmonizing power of this Association, may ever be exerted for the promotion of union both of hearts and States. [Applause.]

"The American Medical Literature of the past year was then reviewed, and said to have been of a creditable character, although it could not be denied that the fruits of the Profession are more practical than scientific. The new American Pharmaceutical Association was noticed and complimented. The works auxiliary to Medical Science, issued by the Federal Government, were alluded to, and the example of the army surgeons in taking meteorological and other observations commended to the brethren in civil life.

"The volume of essays on the Parish-Will case were noticed, as affording a comparison between the American and British medical intellect, when applied to a subject requiring shrewdness and practical talent,—that comparison being not unfavorable to the Americans.

"Prof. Agassiz, and the support of his labors by the American public, came in for a share of praise, and several improvements in Medical and Surgical processes were mentioned.

"In closing his Report, Dr. Palmer presented the following *resumé* of the leading positions taken by the Committee: The Periodical Literature of the United States, is regarded as possessing great abundance, variety, richness, and general excellence; and, though still possessing defects, is constantly improving. Many of the contributions are of great weight and value, indicate an enterprising and industrious Profession. Serious defects are regarded as existing in the review department, arising mainly from the fact that the income of the journals will not justify pecuniary disbursements for literary labor, and editors necessarily engaged in other pursuits can not command the time, if all possessed the ability, to do the work thoroughly and well. [Applause.]

"A few well-supported journals, in place of the many but illy-sustained, might tend to correct this evil; but the multiplicity of local journals is considered as peculiarly beneficial, by collecting from a greater variety of sources a larger number of facts, and developing the powers of a larger number of writers. The interests of this part of our literature demand a prompt and liberal pecuniary support.

"The number of original American Medical Works is increasing, and their character is improving, and, in some respects, particularly in practical utility, they will not suffer in comparison with those of Europe; yet imperfections exist and great improvements are demanded. Great and permanent improvements in Medical, as in General Literature, must be gradual, depending more upon the advancement of education, of taste, and intelligence, than upon any specific measures which may be adopted. Still, various particular measures, such as the frequent writing of medical theses during professional pupilage, and keeping systematic records of cases when in practice, would do very much in hastening on improvement. But for the greater perfection of our literature we must wait the further development of our country, and for those changes of time and circumstances which shall produce a larger number of devoted savants and scholars, placing them in situations where a variety of absorbing pursuits shall not prevent the concentration of great talents upon a comparatively limited range of subjects.

"On the subject of the reprint of foreign works, it is held that, while the free circulation of the best class of these works among us increases the knowledge and improves the taste of the masses of the Profession, it does not interfere with the production of the higher order of original works; and that the moral obligation of our government to join with Great Britain in the enactment of an international copyright law is by no means clearly established.

"In conclusion, the Committee would say, that if, as sentinels placed upon the walls of our Medical Zion, they are asked in relation to its Literature, "*What of the night?*" the response must be, "*The morning cometh!*" The darkness which has hung over that Literature is breaking away. There is, at least, dawning in the East, and though the chariot of day may roll on but slowly, the full effulgence will come at last. [Continued applause.]

"As the Report was quite long, only extracts from it were read, which could give but an imperfect impression of its character as a whole."

On motion, the Report was accepted and ordered to be published.

On motion, Dr. Bozman, of Alabama, was elected a "member by invitation."

Dr. James R. Wood, Chairman of a Special Committee on Medical Education, made a lengthy Report, discussing, 1st, primary medical schools; 2d, the number of professorships in medical colleges; 3d, the length and number of terms during the year; 4th, the requisite qualifications for graduation; 5th, such other subjects of a general character, as to give uniformity to our medical system. Having reviewed these propositions at length, the Committee have arrived at the following conclusions:

First. Primary medical schools should be encouraged; but, as office instructions will continue to be sought by students, practitioners should either give them necessary advantages of demonstrations, illustrations, and recitations, or, if not prepared to do so, they should refer them to such primary schools or medical men as will give them proper instruction.

Second. The number of its professorships should not be less than seven, viz: a Professor of Anatomy and Microscopy, Physiology and Pathology, Chemistry, Surgery, Practical Medicine, Obstetrics, and Materia Medica.

Third. There should be but one term annually, which should commence about the 1st of October and close with the March following, thus lengthening the term to six months. The commencement of the term in October, should be uniform in all the colleges throughout the country. During the session there should never be more than four lectures given daily.

Fourth. The qualifications for graduation, in addition to those now required by the schools, should be a liberal primary education, and attendance upon a course of clinical instruction in a regularly-organized hospital.

In order to give our medical colleges an opportunity to consider the recommendations here advanced, and that that this Body may have the advantage of their wisdom and their mature views, before any definite action is taken upon them, your Committee submit to the Association the following resolutions:

Resolved, That the several medical colleges of the United States be requested to send delegates to a convention to be held at on the day for the purpose of devising a uniform system of Medical Education.

Resolved, That the present report of the Special Committee on Medical Education be referred to such convention for its consideration.

Resolved, That said convention of delegates from the several colleges of the United States be requested to submit to the meeting of this Association, in May, 1859, the result of their deliberations.

On motion, the Report was accepted, and referred to the Committee on Publication, the accompanying resolutions being laid on the table.

The Committee on Nominations reported Louisville, Kentucky, as the place of meeting in 1859, and nominated Dr. S. S. Bemis, of that city, as Second Secretary. They also nominated the following Standing Committees:

Committee on Publication—Dr. Gurney Smith, Pa., chairman; Drs. Caspar Wistar, Pa.; A. J. Semmes, D. C.; S. M. Bemis, Ky.; S. L. Hollinsworth, Pa.; S. Lewis, Pa.; H. F. Askew, Del.

Committee on Medical Literature—Dr. John Watson, N. Y. (Dr. Watson subsequently declined, and Dr. ——— was appointed in his

place), chairman; Drs. L. A. Smith, N. J.; C. G. Comegys, Ohio; R. W. Gibbs, S. C.; W. M. McPheeton, Mo.

Committee on Prize Essays—Dr. J. B. Flint, N. Y., chairman; Drs. M. Goldsmith, N. J.; H. Miller, Ky.; Calvin West, Ind.

Committee on Medical Education—Dr. G. W. Norris, Pa., chairman; Drs. A. H. Luce, Ill.; E. R. Henderson, S. C.; G. R. Grant, Tenn.; T. S. Powell, Ga.

Committee of Arrangements—R. J. Breckinridge, Ky., chairman; Drs. G. W. Ronald, B. M. Wible, D. W. Goodall, D. D. Thompson, N. B. Marshall, G. W. Burglass, R. C. Hewett, and A. B. Cook, all of Kentucky.

The Report was accepted, the nominations were confirmed, and the Committee received permission to sit again.

The resolutions attached to the Report on Medical Education were taken from the table; and after considerable discussion, in which Drs. Hamilton, Watson, Bond, Davis, Rogers, Wood, and others participated, they were referred to a Committee consisting of delegates from the various Medical Schools represented in the Association, to report next morning.

Dr. Hanna, of Philadelphia, moved a suspension of the rules for the purpose of re-considering the vote by which the apology of Dr. Bryan was accepted.

After various motions and votes, the Association went into Committee of the Whole (Dr. Edwards, of Iowa, in the Chair), and the whole subject of the McClintock affair was opened, involving the relations of both Drs. Reese and Bryan.

Dr. Jewell, of Philadelphia, read a lengthy document respecting the affair, reviewing all of its features and reflecting severely upon those who had recommended Dr. McClintock to the Blockley Hospital. The reading of this remonstrance was objected to by Dr. Biddell, and others, from Philadelphia, as a violation of an understanding between Dr. Reese and the members of the Philadelphia delegation, but Dr. Jewell contended that he was not a party to the understanding, and persisted in reading.

Dr. Reese took the platform, and replied in an able speech, giving a history of the transactions, both as to the signing the recommendations and the negotiations, within the last day or two, with the Philadelphia delegation; and after a warm discussion, participated in by a large number, Dr. Reese at length presented the following additional statement:

"The undersigned regrets that he certified to the professional qualifications, for Blockley Hospital, Philadelphia, of an expelled member of this Body, and hereby offers this apology for his departure from the ethical code."

This was received with loud applause; and, on motion of Dr. White, accepted as an ample and satisfactory apology.

Dr. Bryan submitted a similar apology, which was also accepted.

The whole discussion demonstrated the fact, that the Medical Profes-

sion, as represented in the American Medical Association are jealous of their honor, tenacious of their code of ethics, and are fully determined that no plea of humanity or of necessity shall shield any member, however high his position, from the penalties of its violation.

The Committee arose, reported to the Association; which adopted its proceedings, and then adjourned.

Hospitalities.

At five o'clock P. M., the delegates went, in omnibusses provided for their use, to Georgetown College, by invitation of the faculty. After examing this fine institution, which commands a magnificent view, and visiting its fine library, museum, and apparatus room, the party were hospitably entertained; after which they returned to the city. In the evening there were entertainments given them at the residence of Dr. Thomas Miller, 246 F Street, Dr. William P. Johnson, 466 Seventh street, and Dr. A. Y. P. Garnett, 465 Ninth street.

Third Day.

After some unimportant business, Dr. Hamilton, of Buffalo, New York, on behalf of the delegates from the Medical Colleges, to whom was referred the resolutions of the Special Committee on Education, reported the following preamble and resolution:

Fully appreciating the value and importance of the resolution under which they were appointed, but a majority of the gentlemen constituting this Committee not being authorized by the medical faculties of the several colleges with which we are connected to act as their representatives in this matter, and therefore regarding it quite impossible to secure a convention of delegates in the interim of the meetings of the Association; therefore,

Resolved, That we recommend to all the Medical Colleges entitled to a representation in this Body that they appoint delegates, especially instructed to represent them in a meeting to be held at Louisville, on Monday, the day immediately preceding the convention of the American Medical Asso ciation for the year 1859, at ten o'clock, at such place as the Committee of Arrangements shall designate.

The Report was accepted, and the preamble and resolutions were passed.

Reports of Special Committees were now taken up.

Those on Medical Topography and Epidemics were referred to the Committee on Publication, without reading.

Dr. F. Jenkins, of New York, read a Report on Spontaneous Umbilical Hemorrhage of Newly-born Children. Referred for publication.

Dr. Bemis, of Kentucky, read, in part, an able Report on the Influence of Marriages of Consanguinity upon Offspring, the following extract from which must be of interest:

Your reporter has made great effort to ascertain the proximate percentage of the deaf and dumb and blind in our asylums who are the descendants of blood intermarriages. This effort has not been successful from the difficulty principals of such institutions find in gaining the requisite facts. Parents are often sensitive on this score; and it is a delicate matter for principals to attempt investigations which the friends of the beneficiaries suppose to be unauthorized by the regulations of their various institutions. I feel, however, that my researches give me authority to say, that over ten per cent. of the deaf and dumb, and over five per cent. cent. of the blind, and near fifteen per cent. of the idiotic in our State institutions for subjects of those defects, are the offspring of kindred parents.

Aside from the facts which I have gained by corresponding with gentlemen who have given close attention to these points, a curious but perfectly legitimate process of computation confirms me in the opinion that those estimates are very nearly correct. The classes C., D., E., F., G. give 787 marriages of cousins, 246 of which have given issue to deaf and dumb, blind, idiotic, or insane children. Admitting the same ratio to prevail, the Ohio Report, which contains 157 marriages of cousins, followed by deaf and dumb, blind, idiotic, or insane offspring, would indicate the existence of 332 other marriages of cousins in the same population, not followed by such defects. The counties which furnish this 151 marriages, as above, and are supposed to comprise in their limits 332 unreported marriages, making a total of 483, contained in 1850 a population of 1,528,-238. If the same ratio be supposed to exist throughout the Union there would be found, to the twenty millions of white inhabitants, six thousand three hundred and twenty-one marriages of cousins, giving birth to 3,909 deaf and dumb, blind, idiotic, and insane children, distributed as follows:

Deaf and dumb	1,116
Blind	648
Idiotic	1,854
Insane	299

Then, if the figures of the last United States census still applied to our population, there would now be found in the Union—

9,136 deaf and dumb, of whom 1,116, or 12.8 per cent., are children of cousins.

7,978 blind, of whom 648, or 8.1 per cent., are children of cousins.

14,257 idiotic, of whom 1,844, or 12.93 per cent., are children of cousins.

14,972 insane, of whom 299, or 1.9 per cent., are children of cousins.

I invite the attention of gentlemen of this Association to this calculation of probabilities, either to confute or confirm it by any facts in their possession.

A very cursory examination of the tables of my Report will suffice to show that *pari passu* with the increment of the same blood the sum of defects of offspring is likewise increased. Classes D. and G. present exceptions to this rule. As it regards D., the supposed reason for this deviation has been already stated, namely, that its mortality list is so large; while class G. presents so few observations as to satisfy us that they attracted notice solely because of their unfavorable results.

Dr. J. L. Allen made a final report respecting the stone presented by the Association to the Washington Monument.

Dr. E. Andrews, of Chicago, through Dr. Palmer, of Detroit, presented a Report on the "Functions of Different Portions of the Cerebellum."

After some prefatory remarks, Dr. Palmer read the following abstract of the Report:

The cerebellum is divisible into three lobes, one median and two lateral.

The muscular system of most animals is divisible into two groups, viz: those which act upon the anterior extremities and the adjacent part of the trunk, and those which move the posterior extremities and the corresponding portion of the trunk.

The Report shows that there is a direct ratio between the strength and bulk of the anterior group of muscles and the size of the median lobe of the cerebellum.

Also that the lateral lobes manifest a double ratio, their size being as the strength of the posterior group of muscles, and also as the size of the hemisphere of the cerebrum.

It is inferred that the action of the cerebellum is to *excite* motion, and not merely to *co-ordinate* it; that the influence of the median lobe is chiefly expended upon the anterior group of muscles, and that the action of the lateral lobes is in some manner double, part of their influence acting upon the posterior group of muscles, and part of it having some relation to mental power, whose exact nature is not yet understood.

The facts and arguments are drawn from comparative anatomy, and illustrated with outline drawings.

Dr. Campbell, of Georgia, read a Report on the "Nervous Concomitants of Febrile Diseases"; which was accepted and referred to the Committee of Publication.

Dr. J. Marion Sims, of New York, read an abstract of his Report "On the Treatment and of the Results of Obstructed Labor," illustrated with a series of magnified illustrations. The Dr. seemed perfectly familiar with his subject, and was frequently applauded.

Dr. Stephenson, of New York, read an interesting abstract of his Report on "The Treatment best adapted to each variety of Cataract, with the Method of Operation, Place of Selection, Time, Age," &c.

The Committee on Nominations reported the following Special Committees:

Special Committee on the Microscope.—Drs. Holsten, of Ohio; Dalton, of New York; Hutchinson, of Indiana; Stout, of California; and Ellis, of Massachusetts.

Special Committee on Medical Jurisprudence.—Drs. Smith, of New York; Hamilton, of Buffalo; Crosby, of New Hampshire; Purple, of New York; and Mulford, of New Jersey.

Committee on Quarantine.—Drs. Harris, of New York; Moriarty, of Massachusetts; La Roche, of Pennsylvania; Wragg, of South Carolina; and Fenner, of St. Louis.

Committee on Surgical Pathology.—Dr. James R. Wood, of New York, chairman.

Committee on Disease and Mortality of Boarding Schools.—Dr. C. P. Mallengly, of Kentucky, chairman.

Committee on the various Surgical Operations for the relief of Defective Vision.—Dr. Montrose A. Pallen, of St. Louis, chairman.

Committee on Milk Sickness.—Dr. Edward A. Murphy, of Indiana, chairman.

Committee on Medical Ethics.—Drs. John Watson, of New York; Dalton, of Massachusetts; Emerson, of Pennsylvania; Hamilton, of New York; and Gaillard, of South Carolina.

Adopted.

Dr. Edwards, of the same Committee, reported the following resolution:

Resolved, That a committee of nine be appointed by the Chair to wait on the Hon. Howell Cobb, Secretary of the Treasury, and respectfully to request the restoration of Dr. M. J. Bailey, as inspector of drugs and medicines for the port of New York, at the same time disclaiming all political considerations.

After much discussion, in which many participated, Dr. Cox, of Md., offered, as a substitute, the following:

Resolved, That the appointment of inspectors of drugs and medicines in the various ports of the United States, should, in the opinion of this Association, have regard to the essential, moral, and scientific qualifications of the candidates, and not to considerations of personal favoritism or political bias.

After still further discussion, and various motions, both resolutions were passed—that of Dr. Cox preceding that of Dr. Edwards.

At a subsequent period of the Session, the resolution of Dr. Edwards was re-considered, and again very warmly discussed.

Dr. Dunbar, Dr. Tylor, and others, deprecated the action as passing beyond the legitimate sphere of the Association, and dabbling in politics, etc., etc.

Others thought the subject had no political bearings.

Dr. Palmer stated that they need have no bearing upon party politics. It was alleged by some that Dr. Bailey was eminently qualified for the office, while the present incumbent was incompetent. Now, if these were the facts, the importance of the office to the lives and health of the people was such that it would be proper for this Body, having a sort of supervision over the public welfare in a medical point of view, to respectfully call the attention of the government officers to the subject, and request them to correct an error into which they had, doubtless, inadvertently fallen. What he wished to know was, whether the present incumbent was really and evidently incompetent. He asked for information on that point, for the purpose of determining his action.

Dr. Watson, of New York, said Dr. Bailey had had his circulars out since his "rotation," but that the Academy of Medicine of New York had refused to interfere.

Dr. Byrns, of Brooklyn, hoped the resolution would be defeated, intimating that incompetency did not exist in the incumbent.

Dr. McNulty, of New York, endorsed the learning and competency of the present inspector.

On motion, the resolution of Dr. Edwards, after being re-considered, was indefinitely postponed by a decided vote.

Dr. Arnold, of Georgia, made a Report upon a novel method of preparing diseased membranes for exhibition, showing specimens prepared with Arsenic, and put up between panes of glass with some adhesive material. — Referred for publication.

Dr. Baker, of Georgetown, Chairman of Committee on Voluntary Essays, reported that the Committee had not had time to decide upon the merits of essays presented, and further time was granted them, with instructions, to send to the Publication Committee such as they deemed worthy of being published with the Transactions.

Dr. Grant, of New York, presented a complaint, made by the Newark Medical Society against the New York Medical College (known as Dr. Green's School), for a violation of ethical rules in graduating a well-known advertising quack. — Referred to Committee on Medical Ethics.

It was understood that Dr. Green, in behalf of the College, stated that the Professors had been deceived by the applicant, and deeply regretted the act complained of.

Other complaints of a similar character were made, and referred.

Dr. Humphries, of Indiana, presented a resolution asking for an interchange of Transactions of State and County Medical Societies. — Passed.

An invitation from Professor Bache to visit the Coast Survey Bureaux, on Capitol Hill, was read, accepted, and a vote of thanks for the courtesy was passed.

Dr. Gibbs, of South Carolina, moved that Professor Henry be requested to favor the Association with his views on Meteorology, at such time during the session as he may select. — Carried unanimously.

Dr. Campbell, of Georgia, moved that the Secretary place on record an expression of the regret with which the Society has learned the deaths of Drs. C. R. Walton, S. W. Granton, Marshall Hall, T. Y. Simmons, Mitchell, and other members deceased since the last annual Session. — Carried.

On motion of Dr. Phelps, the following resolutions were passed unanimously, the members rising:

Resolved, That the thanks of this Association are eminently due to the Regents and Professor Henry, of the Smithsonian Institution, for the ample and convenient accommodation afforded for the transaction of business.

Resolved, That the Committee of Arrangements are entitled to our praise and highest appreciation of their exertions to promote the comfort of the members and the best interests of the Association.

Resolved, That to the physicians of Washington and Georgetown and the faculty of Georgetown College we accord the homage of our sincerest thanks for their elegant hospitalities extended to the members from abroad, by which the pleasure of their sojourn here has been so greatly enhanced.

Resolved, That we feel assured that the impressions on the tablet of memory received here, in our National Metropolis, in this the first year of the second decade of the Association, will long remain an evidence of the urbane attentions received, not only from the Chief Magistrate and other public functionaries of our glorious Union, but of private citizens and community at large.

Resolved, That the manifestations of union of heart and purpose in the action of this Session inaugurate a new era, and call for devout acknowledgment to Divine Providence, and presage, as we trust, not only a bright future for the Association, but also as contributing to the perpetuity and prosperity of our great national confederation.

Dr. Kyle, of Ohio, proposed an amendment to the Constitution, by which no person can sit as a member or a delegate at meetings of this Association who is not a graduate of a recognized Medical College. — Laid over for one year, under the rules.

Dr. L. A. Smith presented resolutions of the New Jersey Medical Society, praying for such changes of the Constitution as would establish a board of censors in every judicial circuit of the Supreme Court, who should examine and grant diplomas to all proper members of this Association. — Laid over for one year, under the rules.

Dr. Sutton, of Kentucky, moved that Dr. Jarvis, of Massachusetts, have further time to report on a uniform system of registration of births, marriages, and deaths, and that a Committee be appointed to urge upon the Census Bureau of 1860 the importance of having a physician attached to it, to collect vital statistics.

The President appointed Drs. Miller, Antisel, and Garnet a Committee to wait on the Census Bureau, as provided by the resolution of Dr. Sutton.

Dr. Peter Parker, Ex-Commissioner to China, was then introduced, and was received with applause. He exhibited some curious specimens of *calculi*, as the results of thirty-eight operations upon Chinese. They were of various shapes and composition, and weighed from a few drachms up to three, seven, and eight ounces. His description of the operation by which these calculi were removed, was deeply interesting, and it was gratifying to learn that out of the thirty-eight patients all but five or six recovered perfect health.

Dr. Parker proceeded to state that he has treated in China, at the hospital under his charge, fifty-three thousand cases. Pictures of the most curious cases he had brought to this country, and they were on exhibition in the room below. At no very distant period, he hopes to place in a permanent form the result of his labors, with illustrations. [Applause.] Among other cases, he had probably performed upwards

of a thousand operations for cataract. On one day he operated in sixteen cases, the youngest being a mere child, and the oldest an old lady seventy-nine years of age. She came, led by a servant, submitted heroically to operations on both eyes the same day, and in a fortnight had her sight perfectly restored. [Applause.]

In acknowledging a vote of thanks, Dr. Parker said he had, among his patients, all classes, from members of the imperial family down to beggars. His greatest difficulty had been to persuade his patients that he could not cure all diseases.

An Evening Session was held, at which the amendments of the Constitution, proposed at Nashville, were brought up, but all were lost.

The amendment in regard to a Permanent Secretaryship, presented at Detroit, was also lost.

On motion of Dr. Foster, of Tennessee, the Secretary was directed to collect all the By-Laws, and have them printed in the next volume.

Various additional votes of thanks were passed, and the Association adjourned *sine die.*

Thus ended one of the largest and most interesting meetings of the Association.

Much time was occupied in discussing subjects not strictly of a scientific character, relating rather to rules, ethics, proprieties, &c., and various Reports, made with much care, were, for want of time, referred to the Committee on Publication, without even a synopsis being given. But the rigidity with which discipline has been exercised, and the manner in which independent natures have felt impelled to yield to the moral power of the Association, has demonstrated its great force, and will be a caution to all who may be tempted to step aside, from whatever motives, from the strict rules prescribed.

In the evening of the third day, entertainments were given by Hon. Stephen A. Douglass, Dr. C. Boyle, and Dr. J. F. May, which passed off very agreeably; and on the following day the excursion to Mount Vernon, Fort Washington, and the "Pavilion," where "*planked shed entertainment*"—a very agreeable institution—was enjoyed by a large number of the Profession and their ladies. The interest clustering about the resting-place of the Father of his Country need not been referred to, and it is sufficient to say that the hospitality of the Profession of the District commended itself to every recipient.

The reception at the President's was cordial, and the Company seemed to be in high spirits; and at no place was there a more agreeable entertainment than was given by Senator Douglass and his accomplished lady.

On the whole, the meeting at Washington has been a good one, and from the number and character of those present, and the many interesting associations of the place, will be long and vividly remem-

bered. While the members of the Association have been thus agreeably impressed with Washington and its people, the good opinion and feelings seem to have been reciprocated as it was a frequent remark that a more dignified and apparently able body and men, of the same number, had never before assembled in the Capitol City of the Country. At no previous meeting of the Association has there been a larger number of the older, more substantial, and more distinguished members of the Profession assembled.

The meeting at Louisville must be one of the greatest importance; for if, there, a high uniform system of medical education shall be adopted and enforced upon all the schools, its results upon the Profession must be such as no previous action has produced. The Profession will wait with interest those results.

P.

Obituary.

Died, at his residence, corner of State and Grand River Streets, on the 7th of May, 1858, Lucius Gain Robinson, M. D., in the 33d year of his age.

It is with deep sorrow that we make the above record. Thus early, in the bloom and vigor of manhood, has passed away one who had already made his mark upon the records of the Michigan Profession.

Dr. Robinson was born on the 2d of September, 1826, at Palmyra, N. Y., where his father, Dr. C. C. Robinson, then practiced his Profession, and where his grandfather, Dr. Gain Robinson, had practiced for many years, and subsequently died in 1831. In 1833, Dr. C. C. Robinson moved to this State, and settled in, and named the present village of Palmyra, on the Southern Rail Road. He died at the age of 36. The subject of the present sketch pursued his classical studies at Oberlin, O., engaged in the study of medicine under the supervision of Dr. E. M. Clark, and graduated with the Doctor's Degree, at Albany, N. Y., in January, 1852, since when he has practiced his Profession in this city.

In the spring of 1853, he married a daughter of Dr. Edward Kane, then of Plattsburg, N. Y., at present a resident of Detroit.

In March, 1856, he originated and issued the first No. of the *Medical Independent*, with which he remained connected until its consolidation with the *Peninsular Journal*, in April last.

From his venerable grandmother, who is a sister of the Hon. Luther Bradish, of New York, and who has seen three generations of Doctors Robinson pass away, we learn many of the above particulars; and also, that the childhood and youth of our departed Brother

were characterized by amiability, obedience, and thoughtfulness. In his professional career, we can bear testimony to his studious habits, devotion to science, and uprightness of deportment.

The last sickness of Dr. R. was enveloped in much obscurity. He was not well at the meeting of the State Society, and took to his bed shortly after. His disease, at that time, seemed an attack of acute bronchitis, followed by manifold and obscure complications. He partially recovered, so as to attend to some professional business, but suffered a relapse in the latter part of April, after which marked cerebral symptoms were manifest. A thorough post-mortem examination, however, threw no light upon the case, the organs of the three great cavities of the body being all apparently healthy. How much of pathology is yet unknown!

At a meeting of the Profession of the city, held on the day after his death, the following resolutions were passed:

Whereas, Almighty God, in his infinite wisdom, has removed, by death, in the early vigor of his manhood, our professional Brother, Dr. Lucius G. Robinson; therefore,

Resolved, That we bow in humble submission to this, to us, sad dispensation, and recognize in it the admonition — "Be ye also ready."

Resolved, That his earnest zeal in, and devotion to, Medical Science, together with his gentlemanly bearing in general and professional intercourse, had endeared our departed Brother to us, and that we mourn his decease as a loss to the Profession.

Resolved, That we tender to the afflicted family of our late Brother, our deepest sympathy in this their great bereavement, and that we will attend his funeral in a body.

Resolved, That a copy of the proceedings of this meeting be presented to his family, and that their publication in the Peninsular and Independent Medical Journal, and the city papers, be hereby requested.

We are pained to hear of the death, in March last, of Dr. D. B. VanTuyl, of South Bend, Indiana. Dr. VanTuyl was a leading physician of Northern Indiana.

☞ We have appointed Mr. W. M. Dickson, No. 432 Walnut-street, Philadelphia, as Agent for our Journal. His receipts for subscriptions paid to him will, therefore, be held good by us.

HIGBY & STEARNS.

THE

PENINSULAR AND INDEPENDENT

MEDICAL JOURNAL.

VOL. I. DETROIT, JULY, 1858. No. 4.

Original Communications.

ART. XVIII.—On the Qualitative Analysis of Urine.

BY HENRI ERNI, M. D.

Concluded from the June No.

§6. A quantity of Urine is mixed with half its bulk of concentrated chlorohydric acid: should it turn dark, and deposit a blue powder, cyanurine (indigo) is present.

§7. Kreatine and kreatinin are found in small quantities in Urine; but their separation being somewhat complicated we must refer to LEHMANN'S Physiological Chemistry for the process, as also in regard to the tracing of lactic acid.

§8. Sulphide of hydrogen, sometimes met with in Urine, is indicated by its odor, and by its effect on lead paper, turning it brown.

§9. In order to analyse Urine for its inorganic constituents, we evaporate some ten to twenty cubic centimetres of this liquid; the dry mass left is mixed with one to two grains of platinum sponge, and slowly ignited, until all the carbon

is burned off; the rest, or the ashes, is boiled with water; the whole is thrown upon a filter; and the liquid passing through is then examined as follows:

a. We acidulate a small quantity with chlorohydric acid, and add chloride of barium: a white precipitate shows sulphuric acid.

b. Another part, first rendered acid with nitric acid, is mixed with nitrate of silver, when a white, curdy mass falls, should chlorine be present.

c. To a third portion we add acetate of soda, then some acetic acid, and finally a drop of sesquichloride of iron: if a yellowish-white gelatinous precipitate is deposited, phosphoric acid is indicated.

d. The rest of the aqueous solution is evaporated to complete dryness, and a portion examined before the blowpipe: if soda be present, the exterior blowpipe flame appears of an intensely yellow color.

e. Another part of the salt obtained in *d.* is dissolved in a few drops of water, and mixed with a few drops of chloride of platinum: if it contains potassa, a yellow crystalline precipitate will be formed.

Should the aqueous extract of the ashes contain also lime and magnesia (the former is recognized by oxalate of ammonia, the latter by phosphate of soda and ammonia), both of these have to be removed before we can test for the alkalies. To this end, we precipitate the lime by oxalate of ammonia, separate by filtering, evaporate the filtrate entirely, and ignite the residue, in order to drive off the ammoniacal salts, and dissolve again in water, and add to the solution baryta-water until an alkaline reaction takes place; the magnesia which is thus precipitated is filtered off. The excess of baryta is now separated by the addition of ammonia and carbonate of ammonia, and the filtrate again evaporated to dryness. With the residue remaining (consisting of the alkalies), we proceed as stated above (§ 9, *d.* and *e.*).

In most cases, however, the aqueous extract tests alkaline, and contains none of the alkaline earths.

§10. The residue, insoluble in water (§9), is heated with some chlorohydric acid, the whole brought upon a filter, and, after washing the remainder on the filter, the acid solution is tested thus:

a. One portion is boiled with a drop of nitric acid, and afterwards some sulpho-cyanide of potassium added: if the mixture turns red, iron is present.

b. The remaining quantity is treated with an excess of acetate of soda, and, with oxalate of ammonia, tested for lime.

c. After all the lime has been precipitated, and removed by filtration, we add ammonia: if the liquid contains magnesia, a white crystalline powder, consisting of phosphate of magnesia and ammonia, falls.

Most of the examinations mentioned in §§9 and 10 could be carried on with the original Urine (filtered, if necessary), but the reactions made with the ashes themselves are more distinct.

§11. Sometimes the Urine has to be examined for iodine; but we must refer to larger analytical works for its isolation.

Examination of Urinary Sediments under the Microscope.

We ought to know whether the Urine is fresh, or whether it has undergone some changes, induced by fermentation, etc.

DIVISION B.

We test the Urine first with litmus paper, bring it into an air-tight glass vessel, and suffer the sediment to subside completely; the liquid above it is carefully decanted, and analysed according to §2.

A. The Urine is acid.

1. The whole sediment is amorphous. A drop of it is gently heated on the object-glass: if complete solution takes place, urates are present.

To have further proof, we add, after cooling, one drop of chlorohydric acid; after the lapse of fifteen to twenty minutes, we bring the slip of glass under the microscope: if uric acid is present, it appears in rhomboidal plates (see fig. 5, *ante*).

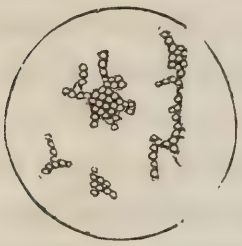

FIG. 6.

In most cases, the amorphous mass consists of acid urate of soda (fig. 6).

b. If the sediment does not dissolve when heated, but is soluble, without effervescence, in acetic acid, phosphate of lime is present. It is precipitated by alkalies, as an amorphous powder.

c. The sediment exhibits particles of a silvery lustre, soluble in ether: fat is present.

2. The sediment shows regular crystals.

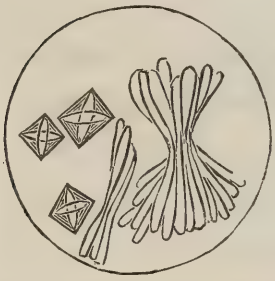

FIG. 7.

a. They consist of minute transparent octahedrons, which are insoluble in acetic acid. Oxalate of lime is present. In many cases, the crystals of this salt accumulate, and form bundles like fig. 7.

b. The crystals are prismatic, lozenge-shaped, or rhomboidal, often more or less colored, and consist of uric acid (fig. 5).

Should some doubt be left, we dissolve them on the object-glass, in a drop of caustic soda, adding subsequently a drop of chlorohydric acid, and examine these new forms microscopically; also, chemically, if necessary (formation of murexide [?]).

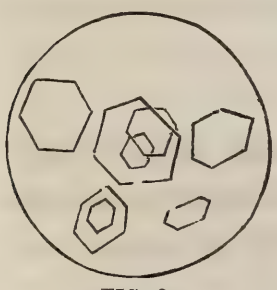

FIG. 8.

c. Hexagonal plates, like those in fig. 8, which are soluble in chlorohydric acid and in ammonia, carbonize and burn, if ignited, and consist of cystine. This substance may be farther recognized by its giving rise to the formation of

dark sulphide of lead, when mixed with a solution of oxide of lead in caustic soda.

3. The sediment consists of organized matter.

a. Coiled, cylindrical masses, made up of little dots and granules (fig. 9). Formed of coagulated mucus, frequently accompanied by urate of soda.

FIG. 9.

These coils must not be confounded with the *tubuli uriniferi*, mentioned in *e.*, with which they have some resemblance.

b. Minute, strongly contracted, and granulated particles, mostly united, by their margins, to one another, forming peculiarly shaped groups. Are mucus cells (fig. 10).

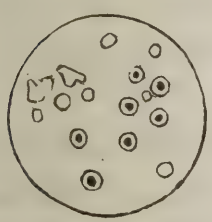

FIG. 10.

c. Circular, bi-concave discs (emptied of their contents by exæmosis). Are blood corpuscles: they are generally feebly colored. Acetic acid causes them first to swell up, and, sooner or later to disappear (see fig. 1, *ante*).

d. Pale-looking and granulated globules, larger and less transparent than blood discs, which, by the action of acetic acid, are swelling up, exhibiting distinctly their variously shaped nuclei, consisting of pus (fig. 11).

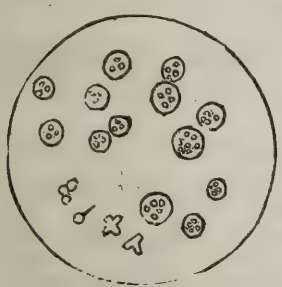

FIG. 11.

e. The sediment contains a colorless coagula, of cylindrical shape, entangling blood and pus cells, and is frequently found together with epithelial scales and mucus. The cylinders consist of coagulated fibrin, formed in the uriniferous tubes of the kidneys, and preserving still their characteristic shape (fig. 12). *Bright's disease.*

FIG. 12.

f. Spermatozoa: consisting of an ovate body, with a delicate, bristle-like tail; are easily recognized (fig. 13).

g. Confervæ, yeast fungi in different stages of development, are found, together with urate of soda,

uric acid and oxalate of lime, in fermenting Urine, particularly in diabetic (fig. 14).

B. The Urine tests alkaline.

1. The sediment contains crystals and rhombic prisms, with a variety of terminations, and exhibiting remarkably perfect angles and edges. Are characteristic forms of triple phosphate of ammonia and magnesia (fig. 15).

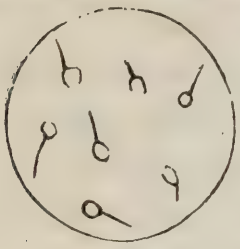

FIG. 13.

This salt is soluble in acetic acid, and when heated together with a drop of liquor potassa, yields ammonia.

Should oxalate of lime, in the previously described form, be also present, we pour a drop of acetic acid on the object-glass, when the triple phosphate is dissolved, but not so with the oxalate.

FIG. 14.

Minute spherical, opaque bodies, adhering together, and forming linear masses, indicate urate of ammonia. This salt also occurs in conglomerate forms. The globules are provided with projecting and generally curved processes (fig. 16).

2. The sediment is amorphous, and consists, in alkaline Urine, in regula of phosphate of lime.

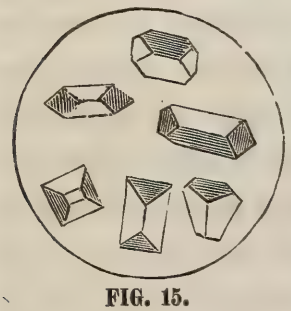

FIG. 15.

3. The sediment contains a variety of organized bodies. Besides the constituents enumerated in Division A. we find numerous fungi, confervæ, infusariæ, &c.

FIG. 16.

ART. XIX.—Our Native Wines.

BY FREDERICK STEARNS, PHARMACEUTIST.

OUR Native Wine product is assuming an importance which renders facts relating to the manufacture, or to its statistics, interesting to all. In view of this, the writer is induced to lay before the readers of the PENINSULAR AND INDEPENDENT the following remarks, being notes of facts elicited from various sources, and having a bearing upon the subject.

In considering the subject of the annually increasing product of Wine in this country, one naturally inquires,—Do these Wines possess the qualifications necessary to enable them to properly substitute those of Europe as dietetical and medicinal agents? The reader may, perhaps, draw some inferences in answer to this inquiry from the following:

As far back in our history as 1620, vine culture for the manufacture of Wine was undertaken by the English Colonists of Virginia; and, from that early period to the beginning of the present century, many attempts were made, in various parts of our country, to supply the home demand for Wine with a home product, and with but indifferent success. Those attempts proved abortive through the want of experience among the growers, and of suitable varieties of vines adapted to our soil and climate—all growers importing at that time the vines which were cultivated with the most success in Europe. Not until experiments were made in cultivating the different native varieties was there much promise of success. When this was undertaken by the French and Swiss settlers, in the first years of the present century, along the valley of the Ohio, the beginning was made of that culture for which, even now, our country may be proud.

The native varieties of vine now cultivated consist, chiefly, of the Catawba, Isabella, the Schuylkill or Vevay, the Scuppernong, and Missouri; and of these the Catawba constitutes the largest proportion, its cultivation fast superceding that of the others. This being the principal grape now grown, to it must we therefore look for the best Wines of native production.

We find that there are three varieties of Wine made from this grape, viz., the Still or Dry, the Sparkling, and the Sweet. Of these, the Still or Dry, Wine most perfectly represents the grape, being made from the juice, or must, without any additions; the Sparkling variety represents the Champagne Wines of France, and, in delicacy of flavor, compares favorably with them; and the Sweet Wine represents the light Sweet Wines of Europe. The latter two are made to suit the palates of those desiring such Wines, and contain varying proportions of sugar, added, previous to fermentation, for the purpose of increasing the proportion of alcohol, and of rendering them sweet.

The Still Wine, when made with care, varies from a pink to a reddish hue, and is sometimes of a straw-color. It has a strong boquet, peculiar to the Catawba. It is called a "light" Wine, from the small percentage of alcohol which it contains; a "dry" one, partly from the presence in it of some tannic acid, but principally from the absence in it of sugar, the excess of mucilage in the fresh must converting all, or nearly all, of the saccharine matter into alcohol during fermentation. It is an acid Wine—the cultivation of this grape, so far north as the greatest number of vineyards now are, does not allow it to come to its most perfect maturity; the growers also, through carelessness, do not cull with sufficient care the unripe from the ripe grapes, before mashing and pressing them, or, through fear of loss by frosts, cut them too early.

It is asserted, by our most experienced growers, that the must of the perfectly matured Catawba grape is richer in saccharine matter than most European grapes, and that it, by similar treatment, will produce Wine stronger than those from the latter. The probability is, that this grape, grown in the most southern of our States, would produce (the other necessary conditions being equal) Wines as strong as, and in other characteristics comparing favorably with, Sherry, Madeira, and similar Wines. We should not, however, suppose that the Madeira and Sherry which is imported represents those Wines as found in the cellars of the manufacturers of them in their native countries; for no pure Wine is exported, or even can be kept, unless in cool cellars, without the addition to it of from 8 to 15 per cent. of Brandy.

The amount of alcohol in Still Catawba varies from 8 to 11 per cent. (part of this being sugar and coloring matter, the rest free and combined acids).

The principal acids found in Still Catawba are Tartaric, Tannic, Phosphoric, Acetic, and Malic.

The Tartaric Acid varies from two to seven per mille, being greater in new than in old Wine. Upon this acid is based the foundation of the Wine-boquet.

The Tannic Acid is seldom more than one per mille. Upon this depends its clarification, and consequently its durability, and, to a certain extent, its roughness.

The Phosphoric Acid exists in this Wine in a proportion varying from one-half to five per mille. Upon the presence of this acid depends, to a certain extent, its medicinal value, especially for those cases where there is a deficiency of this element in the organism. It has been ascertained that those Wines most esteemed in Europe as medicinal agents, such as Maderia, Tokai, Malaga, and the Rhenish Wines, contain more of this element than others deemed less valuable. An analysis by Dr. KLETRINSKY, of Vienna, showed that

Catawba ranges with the Rhine Wines in its proportion of Phosphoric Acid—the former averaging 1·56 per mille, the latter 1·57 per mille.

Acetic Acid exists in sound Catawba Wine in but small proportion, from one-quarter to one and one-quarter per mille, but when the must is not fermented with care, avoiding too great temperature and contact with air, it is found in greater abundance. From this acid is formed the acetic ether always present in old Wine, and which adds to its aroma, increasing it with age.

Malic Acid exists in the unripe grape, and is present to a slight extent in this wine.

It will be seen, that the value of Still Catawba as a medicinal agent is much lessened by the presence of this excess of acidity, rendering it ineligible for use by elderly persons or others requiring a strong Wine, free from acidity; this renders it also somewhat injurious to the nervous system. It is eligible when an acid reaction is desirable in the stomach, rather than an alkaline one.

If Catawba Wine is kept for several years, in order to fully ripen, as it is termed, it loses a great portion of its acidity, the Tartaric Acid being deposited in the form of tartar upon the sides of the cask, and the Wine modified by the conversion, into peculiar etherine substances, of the others, through mutual action between them and the alcohol of the Wine.

From the fact, however, that the demand for Catawba is greater than the supply, and the cost of production is greater in comparison with that of most European Wines, producers, therefore, do not have those inducements held out to them which men require who look to profit only, to make stronger or even better Wines. And until these conditions cease to exist, we may look in vain for much of a change in their character.

It is a lamentable fact, that of the large amount of Wine now annually produced, a portion—and small at that—only

represents the Wine-capabilities of the grape. *Old* Catawba is very rare, *good* Catawba almost as much so, and *pure* Catawba but a little less rare. This is asserted by one of our most respectable of Wine manufacturers. It seems that in the schools of adulteration, there are willing teachers; these find enough apt scholars, to whom to impart the theory and processes of making fictitious Native Wines. Catawba is *adulterated;* for which purpose, cider and the cheaper French Wines are employed. It is also largely made, *artificially*, by fermenting a watery solution of sugar, with the pummace of the grape (the residue left in the press) adding subsequently enough alcohol or whisky to bring it to the standard.

Our Wine growers state that the best means of judging the quality of these, or indeed of *any* particular class of Wines, are a fine sense of taste and smell. The experience obtained, by the continued exercise of these senses in judging of Wines, forms the best test for knowing the false from the real and the good from the bad.

The strong boquet of the Catawba renders it capable of affording a distilled spirit (Brandy) of superior flavor. To the subject of Catawba Brandy, however, as a secondary product of the Wine, I propose to devote some remarks in a future No. of the Journal.

In 1850, our total Wine crop, including that of California, was 221,000 gallons; that of 1857 can be safely estimated from reliable data, at 3,000,000 gallons. In view of this rapid increase, in so short an interval, we may contemplate with satisfaction the certainty that, ere many years shall elapse, we shall be enabled, instead of, as heretofore, depending upon Europe for our Wines, to supply from our own over-abundant product, those foreign districts wherein the culture of the vine has already become unprofitable, and it is dying out from disease. We may also reasonably expect the influence of capital, increasing experience, and active competition, will

every year tend to enhance the quality, medicinal value, and cheapen this already so important a member of our national products.

ART. XX.—Cases: Epilepsy and Amaurosis.

By G. E. Corbin, M. D.

On the fourth day of March, 1857, I was summoned in great haste to the bedside of E. P., a boy of about twelve years of age. I found him with a full and an exceedingly irregular pulse, and a countenance alternately pale and suffused. He was perfectly serene and conscious, notwithstanding there was considerable spasm of his left superior extremity, and great distortions of his features by a constant and powerful spasmodic contractions of the muscles of the left side of his face. A careful inspection of the vertebral column revealed tenderness both in the upper dorsal and lower cervical regions.

In due course of time, I elicited from his parents the following history of the case: It appears that he and his playfellows, while at school, had for several days previous been engaged in a dangerous species of recreation, consisting in leaping, unawares, upon each other's backs, with the thighs partially flexed upon the abdomen, so as to bring the knees in coaptation with the lumbar vertebræ of his victim, and thereby make him measure his length upon terra firma, *nolens volens!* On one occasion, after having been taken by surprise in this manner, my patient found himself suddenly very "faint and dizzy," and it was with great difficulty he was enabled to arise. From this time, he remained at home for about one week, constantly complaining of soreness of the muscles generally, lameness of his back and shoulders, want of appetite, and a dull, heavy headache. At the expiration

of this time, or about the first of March, 1857, all his senses were instantly paralyzed; he was suddenly and powerfully convulsed, his features were greatly distorted, and jaws firmly closed, respiration was difficult, and accompanied by foaming at the mouth;—in short, in describing his appearance at the time, his parents described a well-marked case of epilepsy.

In this, as well as in several of the succeeding paroxysms, the convulsions and coma lasted for nearly two hours. The spasms of his superior extremities were much more violent than those of his inferior, as also were the spasms of the extremities upon his left side, more severe than those on his right. So great was the irritability, that, during the intervals between the paroxysms, by night or by day, awake or asleep, there was a constant spasmodic contraction of some of the muscles of his left arm, as well as those of the left side of his face. Although these constant spasmodic contractions gradually abated under the treatment soon to be described, it was nearly four weeks before they entirely disappeared. The muscles last affected, were the corrugator supercilii, and orbicularis palpebrarum of the left side.

When first attacked, my friend, Dr. A., was called, who attended upon the patient until the fourth of March, at which time, from indisposition or other cause, he found it impracticable to treat the patient longer, and I was summoned as above stated.

As auxiliary to other treatment, Dr. A. had recommended the use of assafœtida internally, and the cold douche to the head. The assafœtida was found to be very beneficial, and was administered, more or less frequently, throughout the entire course of the disease. The cold douche was tried once, with a much less desirable effect, viz., that of inducing a severe and protracted paroxysm. In each instance subsequently (two or three in number), the mere preparation for a douche, in the presence of the patient, had the effect to induce paroxysms also. Cold sponging, in moderation how-

ever, seemed to produce rather a soothing effect than otherwise.

Immediately on taking charge of the patient, I administered a tolerably active cathartic, which was afterward followed by mild aperients, as occasion required. A seton was inserted near the seat of tenderness, in the cervical region, antimonial ointment freely used in the lumbar region, nitrate of silver and assafœtida administered internally, quietude enjoined, and cold or tepid sponging recommended.

This constituted the treatment until March 9th, when, not having succeeded in inducing a sufficient amount of counter-irritation, and paroxysms occurring in unmitigated severity, to the amount of one or two in the course of each twenty-four hours, *pure Croton Oil* was freely and vigorously applied to the back part of the neck. This produced a *very powerful impression;* since which, the boy has not had one single well-marked paroxysm! It is true that after this the boy was frequently *threatened* with paroxysms, but the tendency to coma and general convulsions was not very strong, and an erect posture, and the timely application of cold water in moderation to the head, always succeeded, in either greatly mitigating or entirely intercepting the paroxysm.

At the expiration of about four weeks, all traces of spasmodic action had disappeared; and up to the present time the boy has had no symptoms of their return.

The use of nitrate of silver was persevered in as long as spasmodic action remained; after which, sulphate of zinc, chalybeates, etc., were substituted for it. Counter-irritation to the spine was continued for several months.

Stockbridge, March 19th, 1858.

Mrs. W. is a lady of thirty or thirty-five years of age, and one who, though formerly in the enjoyment of tolerable health, has never been very rugged. Within the past few

years she has had frequent and severe attacks of both neuralgia and inflammatory rheumatism; and, twice, within the last twelve months, she has suffered great inconveniences from ascites and general anasarca. In both instances, however, the dropsical effusion has been speedily dispersed, under the influence of tonics, cholagogues, and saline diuretics. She is the mother of three children, and ever since the birth of her youngest (it being three or four years of age), she has menstruated regularly, at intervals of twenty-eight days.

About the middle of July last, during the discharge of her menses, she was seized with an excruciating pain—the pain was no more severe than what she had suffered numerous times before—in her head, and, with a view to relieve which, she made profuse and long continued applications of cold water. Apparently as the direct result of this course of procedure, she was, while yet engaged in bathing her head, suddenly seized with that species of vertigo denominated scotodinia. Her menses were also immediately stopped. Her right hand and arm were so far paralyzed, that there was a great diminution of sensation and voluntary motion. She immediately assumed a recumbent posture, and, in the course of a few hours, as the vertigo wore away, the power of vision was restored to her left eye, but, unfortunately, with her right, she was utterly unable to discern any object, at whatever distance.

This is the condition in which I found my patient on my arrival. The general appearance of the eye, the suddenness of the attack, the catoptric test, &c., all pointed unmistakably to amaurosis.

In consideration of the enfeebled condition of my patient, chalybeates and quinine were conjoined with mild aperients. Blisters were applied to the temples, and strychnine cautiously administered internally, for several successive days, until there was a slight effect produced in the muscular substance of the paralyzed arm, similar to if not identical with the peculiar effects of strychnine.

In the course of a few days, her arm had so far recovered from the shock that she resumed, in part, the discharge of her domestic duties. Her sight *constantly*, and yet *very slowly*, improved, notwithstanding she was subject to occasional slight attacks of vertigo, accompanied by dimness of vision, and numbness of her right arm.

At the expiration of just four weeks from the time of attack (a period to which my patient had looked with much anxiety), her menses recurred, accompanied by no untoward result or remarkable symptoms of any kind. Her general health has been very much improved, and the power of vision has been so far restored to her right eye as to render it, at the present time, of considerable service to her.

She is at the present time, and has been for several weeks past, slowly improving, under the effects of hygienic treatment simply.

Stockbridge, March 22d, 1858.

ART. XXI.—Inanition.

By Thomas Lothrop, jr. M. D.

To "live to eat" and "to eat to live" are proverbs which, though partaking somewhat of antiquity in their origin, are not so paradoxical when carefully examined as would appear from a superficial review. They imply that there must exist an inseparable connection between vitality, on the one hand, and nutrition, on the other. While, however, the God of Nature has placed the continuation of life in such close relation with a proper amount of its appropriate pabulum, there has been made a not less extensive provision for the constant, though gradual, production of these materials which are thus rendered indispensable in carrying out His designs. Nutri-

ment, in its varied forms, the extent and manner of whose application are but exponents of the importance of its existence, is, therefore, as widely diffused as is the abundance of vitalized structures. The heavens above our heads, the earth beneath our feet, and the luxuriance of vegetation observed on our every hand, convey but an idea of the munificence of "Him who doeth all things well."

The demand for nutriment in the organized kingdom depends upon the law that all vital action, whether in the simple and delicate cell, or in the complex mechanism of man, involves a change in the molecular structure of the instrument through which its manifestations are made. We can not conceive of life, the more especially as it exists in its higher forms, unless it is associated with some alteration or metamorphosis, either constructive or destructive, which shall be evident to our senses. Change, therefore, which may be regarded as the distinguishing characteristic of the vital fabric, possesses various modes of exhibition in the animal as well as in the vegetable kingdom.

In the simple plant, whose entire structure is homogeneous, the extension of its fabric, by the multiplication of its component parts, and the formation of genus for the continuance of the species, constitute the manner of application of the food which is consumed. As we advance in the scale of vegetable life, new additions are made to the organism, in order to meet the higher station which it is designed to assume, and there results a more beautiful and a more complicated product. The expanded leaf, through whose instrumentality the more permanent portions of the organism are developed, as in the formation of the woody fibre, is, therefore, the medium by which the tender plant, almost unknown and unnoticed except to the "man of science," is raised, by successive gradations, to the stately and robust forest tree, whose lofty top sweeps the canopy of the heavens, and intercepts the progress of the fleeting

winds, and whose very presence communicates a sentiment of gratification and pleasure to even the casual observer; while the leaf, after its duty has been performed, and the fragrant flower, after it has developed the living germ, afford in their decay an instance of that *waste*, which in the animate creation constitutes a demand for food inferior to none other.

Growth and re-production comprise, in the animal as in the vegetable kingdom, media through which aliment is consumed: but while the powers of growth are carried to an indefinite extent in the plant, they are expended at a comparatively early period in the animal; and, hence, the nutriment which was employed in raising the being to the size of its species, is uncalled for after this acme has been attained. The continued supply is then chiefly directed to the maintenance of its integrity, and the source of demand resides in the retrograde metamorphosis which is progressing during the period of its activity. For since each cell sustains within itself, to a certain extent, an independent existence, the duration of which bears a close relation to its functional activity, so it may be affirmed that every action or movement of the muscular and nervous tissues, since they are made up of a congeries of cells, must induce a degeneration or decay of their structure, while to repair this waste, and to place the tissue in a condition essential to the performance of its several functions, must comprise a very important demand for nutriment in the organism.

More directly dependent than upon any other condition is the continuance of life, as manifested in the higher animals, upon a proper activity of the heat-generating processes, and it is in order that they should be adapted to the continual variations of external temperature, as well as for the uniform performance of their functions, that the maintenance of animal heat at a fixed standard has

been made the result of chemical changes similar in every regard to the results of combustion as observed externally, which certain materials undergo within the system. Carbon, in some of its forms, is therefore so closely allied to the existence of the being, that, without it, life would become extinct.

It is through the operation of these various demands which are progressing during life, that food becomes an indispensible requisite to the continuance of vitality; growth, re-production, repair of waste, and the production of animal heat are, therefore, directly dependent upon a proper supply of nutritive materials, and, if provided, the being lives, grows, brings forth its like which are to follow in its footsteps, while beauty, symmetry, and perfection itself presides over the entire organization.

But if, on the other hand, there should arise an entire, or even a partial, withdrawal of these essential materials, the demands for food preserve all their activity, and, in the absence of other sources, it has been wisely provided that absorption of the surplus stores which have been laid aside in the hidden recesses of the organism should commence, and subsequently of the tissues themselves. The adipose substances, of which more or less are always deposited in the cellular tissues, are taken up by the lymphatics, which are ever ready to meet the emergency, and the nitrogenized tissues, which are thrown broad-cast throughout the entire system, suffer a diminution in size and weight, and by these means the being is enabled to prolong its life during a much longer period than would be possible under any other circumstances. When, however, all the heat-generating and tissue-nourishing materials have been absorbed, and nothing more remains in the system for its support, death ensues, as an inevitable result: internal change has been carried to such an extent as to have rendered the fabric unfit for the sustenance of vital action.

From this, I am led to the consideration of those circumstances which either directly cause or indirectly conduce to the production of inanition. Nothing would appear more evident, even to the untutored intellect, than the proposition that it results from an entire withdrawal of an appropriate pabulum. Starvation, however, is not less a product of a total abstinence from nutriment than of a deficiency in quantity, or an inferiority in quality. In the animate creation there is a more intimate dependence upon a certain amount of nutritive matter than in the inanimate; for a quantity which would be inadequate to the support of the former, would enable the plant to maintain an existence, although its fabric would be dwindled down to the feeble and unimposing dwarf, while, on the contrary, that which would raise the vegetable to a size scarcely to be compared to its species, would not influence in the least the development of the animal, for its stature is restrained within definite and uniform limits, which are rarely exceeded in any great degree.

There is observed a peculiar adaptation of means to end, present in every want of the human organism, and no single organic base is able to meet every end to which the various functions are subservient. Every organ or series of organs pursue "the even tenor of their way," elaborating materials for the ultimate nutrition of the system as long as the means are provided by which its action can be kept up. The nervo-muscular tissues require for their sustenance those articles of which nitrogen or azote forms the basis; and it is immaterial whether this element is introduced into the system through the medium of the white of egg, the chief ingredient of which is albumen; the curd of milk, or casein; the grain of wheat, or gluten; or the seed of the pea, or legumen; for each of these organic bases contains the elements of which these important tissues are composed. But since there are other wants which the pro-

teinaceous substances can not supply, the system, when none other is ingested, soon manifests its condition by a feeling of disgust, which retards digestion, and finally develops all the symptoms of inanition, death closing the scene.

Each of these classes of aliments have their appropriate duties assigned them; and without a combination in such proportion that the requirements of the structure are fulfilled, inanition as certainly ensues as if there had been not a single particle of nutriment ingested.

But, while we are induced to attribute the occurrence of inanition to an absence of food or its imperfect quality, we can not overlook those general and prevalent conditions which lie at the foundation of the degeneracy everywhere manifested in the present state of the human race. Our habits, manners, and customs, upon investigation, unfold the most fruitful circumstances which would lead to inanition either morally or physically. The artificial elements of our lives predominate to such an extent over the natural, that it alone is the source of much of that diseased action which is brought to the notice of the practitioner of medicine for the application of his therapeutical knowledge. The physical organization of the present generation is actually starved from a want of performance of those duties which the God of Nature has ordained to be inseparably connected with pure and untarnished health. The imperfectly developed frame, the pale and emaciated countenance, and the general unhealthy appearance, which we regret is far too prevalent, are only symptoms of starvation, which have been brought on from a deprivation of the pure air, and invigorating light of heaven, exercise, and a total non-observance of those hygienic rules so essential to the preservation of "life's greatest blessing."

(*To be Concluded in the August No.*)

ART. XXII.—Meteorological Register for the Month of May, 1858.

By L. S. Horton, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer			Hygrometer			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Clouds.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	BEGAN.	ENDED.	INCHES.
1	28·8	29·0	29·1	42	46	39	37	42	34	·155	·215	·131	·57	·69	·54	E.	1 N.E.	2 N.E.	2	2	8 9	1.30 p.m.	4.10 p.m.	·02
2	29·3	29·3	29·3	44	52	38	40	46	34	·195	·232	·144	·67	·59	·62	E.	1 E.	2 E.	2	3	3 7			
3	29·3	29·2	29·1	49	50	43	44	47	40	·223	·283	·208	·63	·78	·75	E.	2 E.	2 E.	2	9	7 9	9, a.m.	9.35 p.m.	·06
4	29·0	29·0	28·9	47	55	50	42	50	46	·202	·295	·258	·62	·68	·71	N.E.	1 E.	2 E.	1	10	9 8			
5	28·9	28·9	28·9	55	65	52	50	60	48	·295	·451	·282	·68	·73	·72	S.	2 S.E.	1 S.W.	2	3	1 6	9.15 a.m.	6, p.m.	·10
6	28·9	28·9	28·9	56	56	51	50	51	47	·282	·308	·270	·62	·68	·72	W.	2 S.W.	2 S.E.	1	5	9 3			
7	28·9	28·9	29·0	55	68	57	71	62	51	·321	·476	·295	·74	·69	·63	S.E.	1 S.E.	1 S.	1	1	1 1			
8	29·0	29·0	29·0	62	77	60	55	70	56	·340	·639	·396	·61	·68	·76	S.E.	2 S.	2 S.E.	1	4	1 2			
9	28·9	28·9	28·8	66	68	54	62	62	43	·502	·476	·133	·78	·69	·32	S.	1 S.E.	2 S.E.	2	8	9 8			
10	28·9	29·0	28·9	51	55	41	46	51	37	·245	·321	·168	·65	·74	·65	E.	2 E.	2 N.E.	3	9	10 9	10.5 p.m.		
11	28·9	28·8	28·8	42	44	40	38	40	35	·177	·195	·139	·66	·67	·55	N.E.	3 N.W.	4 E.	3	10	10 8		11.50 p.m.	·56
12	28·7	28·8	28·9	47	65	60	42	60	55	·202	·451	·367	·62	·73	·70	S.W.	3 S.W.	2 S.W.	2	3	7 8			
13	29·0	29·1	29·0	51	69	60	46	59	55	·245	·409	·367	·65	·81	·70	N.E.	2 N.E.	2 S.E.	2	8	8 5	8, a.m.	11, a.m.	·07
14	28·9	28·9	28·8	64	74	67	60	63	60	·465	·429	·425	·78	·51	·64	N.E.	2 S.E.	2 S.W.	1	2	2 4			
15	28·9	29·0	29·1	50	64	57	44	53	50	·209	·257	·268	·58	·43	·57	E.	2 S.E.	3 N.E.	2	5	4 3			
16	29·1	29·1	29·1	52	55	50	41	42	40	·113	·261	·117	·29	·38	·32	N.E.	2 E.	2 S.E.	3	4	2 5	10, p.m.		
17	28·8	28·7	28·8	50	57	39	49	55	35	·139	·268	·126	·38	·57	·48	S.E.	2 E.	2 W.	2	1	2 7			
18	28·8	28·8	28·9	44	60	42	40	54	38	·195	·338	·117	·67	·65	·66	S.W.	2 S.W.	2 E.	2	8	10 5		3, a.m.	·72
19	29·0	29·0	28·9	49	55	46	45	51	42	·295	·321	·259	·73	·74	·71	E.	2 S.E.	2 S.W.	2	5	8 10	1.30 p.m.		
20	28·8	28·9	29·1	48	58	41	44	52	37	·282	·309	·168	·72	·64	·65	S.W.	2 W.	3 S.W.	2	9	10 5		5.30 p.m.	·61
21	29·0	29·0	29·1	48	59	51	42	48	46	·189	·190	·245	·56	·38	·65	W.	2 W.	2 S.W.	1	2	8 5			
22	29·1	29·1	29·2	49	66	60	41	60	54	·153	·438	·365	·64	·82	·75	S.W.	2 S.E.	2 E.	1	4	5 9	11.50 p.m.		
23	29·0	28·8	28·8	58	79	58	52	75	54	·335	·426	·283	·80	·82	·78	E.	2 S.	4 S.	3	9	10 9	7.10 p.m.	8, a.m.	·34
24	28·7	28·7	28·7	54	60	50	51	57	47	·321	·365	·308	·74	·75	·73	E.	2 E.	2 E.	2	10	10 10			
25	28·7	28·6	28·5	55	58	54	51	54	50	·308	·308	·258	·73	·73	·71	N E.	2 E.	2 S.E.	2	10	10 8			
26	28·5	28·7	28·8	54	54	50	50	50	46	·308	·451	·258	·73	·73	·71	W.	3 W.	2 N.W.	3	10	10 9		5, p.m.	1·10
27	28·8	28·8	28·9	54	65	50	50	60	46	·269	·399	·270	·66	·71	·72	N.W.	3 N.E.	2 E.	2	4	5 2			
28	28·9	28·9	28·8	53	62	51	48	57	47	·321	·335	·396	·74	·74	·76	E.	2 N.E.	2 E.	2	7	4 3			
29	28·8	28·8	28·8	55	66	60	51	52	56	·447	·823	·631	·77	·62	·80	E.	2 S.E.	1 S.E.	1	10	7 4	7, a.m.	8.30 a.m.	·03
30	28·8	28·8	28·7	63	78	72	59	68	68	·543	·367	·403	·79	·51	·67	E.	2 S.E.	2 S.E.	2	5	5 7	4.30 p.m.	6.10 p.m.	·20
31	28·7	28·8	28·9	68	69	64	64	59	58	·309	·814	·365	·64	·82	·75	S.E.	3 S.W.	4 S.W.	2	8	9 5	9, a.m.	11, a.m.	·20

Editorial Department.

Relief for the Insane.

There is no class, for the relief of which it is the duty of the State to provide, more deserving of prompt effort in their behalf than the insane. More helpless for their own good than any other class of unfortunates — in many instances a source of danger to themselves and their fellow-beings, and requiring removal from familiar scenes and faces, together with kind and wholesome restraint, as almost a *sine qua non* for successful treatment, which latter circumstances can not be secured in any, even the best homes, — they appeal for provision with a claim which should admit of no denial. Other interests may be permitted to suffer; prisons may be left to dilapidate and permit prisoners to escape; the indigent sick, in the absence of hospitals, may be left to languish in poverty-striken homes or badly-ventilated and illy-appointed almshouses; but the evil arising from any, or even all of these conditions is not to be compared with that which results from the neglect to provide for the necessities of the insane. Diseases of the body truly excite pity, commiseration, and sympathy; but what sight so painful, what form of disease so earnestly calls forth the sympathy of the philanthropist, as that of a diseased intellect? A disease which is fed by the very distortions of its own creation, and from which is derives such nourishment as to baffle oftentimes the most skillful management, is indeed one

which should call forth the most earnest endeavors for its relief.

The blind and the deaf are truly to be commiserated—the one never hears the voice of love and friendship or the thrilling notes of music—one important means of obtaining a knowledge of his relation to the world about him is cut off; the other, still more miserable, gropes his desolate way through one enduring night. But to them both, however, sources of pleasure are still open; the deaf gazes upon nature's beauty with a gladsome heart, and reciprocates affection's endearing glance; while, to the blind, the voice and caress of love are sweet, and nature greets him with her music and her fragrance. But what of comfort or pleasure is left to the insane? All is distortion and misconception. The victim of his own fears and suspicions, he becomes a source of anxiety and danger to others. Thus philanthropy and self-protection alike point to adequate provision for this unfortunate class.

The nature of the treatment which the insane require constitutes another and powerful reason for prompt and sufficient provision for them. As a basis for all treatment, old associations must be broken up; the patient must be removed from familiar scenes and faces among which the mind has become deranged, and which are closely associated with the deranged perceptions; and a certain degree of seclusion and restraint, varying in different cases, must be instituted. These indications can be fulfilled only in institutions devoted expressly to the relief of the unfortunate class whose wants we are considering. Adequate provision for this class can be made in no other way. There is but one place where an insane patient can be properly treated, and that is in a hospital or asylum for the class to which he belongs. In no home can appropriate and efficient treatment be instituted; and if it could, still the old associations and familiar scenes in which the patient's mind has

gone astray, surround him, and by their distortions feed the insatiable disease. The influence of a new locality, new faces, and surroundings, where obedience to superior authority is observed by all—by servants, nurses, and subordinate physicians, must be secured before any treatment can exert its full degree of benefit.

The treatment, too, of the insane requires *special* attention, study, and practice, such as can not be realized in the general practice of any physician. Physicians must be educated to this especial practice, in order to become at all skilled in the management which the insane require.

It would seem, then, to be an unquestionable duty of the State to provide for the proper treatment of this unfortunate class of the diseased: not reluctantly, tardily, and meagerly, but promptly, efficiently, and amply. Indeed, most States acknowledge this duty by a prompt and energetic response. Before the burning of the Utica Asylum, the State of New York had expended upon that single institution over $600,000. The asylum was full, and was obliged to refuse admittance to patients from other States. Patients from Michigan were obliged to seek admission elsewhere, and often in vain. The Peninsular State, with all her prosperity, with her railroads and cities, her asylums for the deaf and blind, her University, colleges, and schools, has permitted her insane population to seek abroad the desired relief! For the last seven years the Legislature of Michigan has been doling out paltry appropriations for her first asylum for the insane—appropriations so paltry that the unfinished work is hardly prevented from going to a decay almost as hopeless as that of some of the intellects which it was intended to receive. It is with shame that we record the fact, that, with more or less insane inmates in almost every almshouse and jail in the State, there is not humanity enough in the Legislature of Michigan to secure the requisite provision for this unfortunate class. One

hundred thousand dollars per annum should be appropriated to the asylum, until it is fully furnished and equipped for the reception of patients.

We appeal to the physicians of the State to interest themselves in this matter. It is in your power to accomplish great good in behalf of the cause which we are advocating. Let your exertions then be put forth, and show yourselves indeed messengers of mercy. G.

The Ethical Power of the American Medical Association.

The question is often asked by persons not fully understanding the comparative condition of the American Medical Profession before and since the organization of the American Medical Association, the relations of that organization to the Profession, and its marked effects upon it, What good has that Body accomplished? To answer this question fully, is not the purpose of the present brief article; but we wish to call the attention of our readers to one feature of the Association—to one item of its effects—namely, to its ethical or moral power in controlling the professional conduct of its members, and, indeed, of all who claim to belong to the regular medical fraternity.

The Association consisting of representatives of Medical Societies, Medical Schools, and Hospitals, in every part of the United States, and each individual once a representative becoming thereby a permanent member of the Body, a large portion of the leading men in the Profession throughout the country are included in its list of members. There is scarcely a town of any considerable size within the bounds of the nation, which does not contain one or more members of this organization, and its high-toned code of ethics is adopted by nearly all State and Local Societies, and has become the common law of the Profession. He who openly and habitually violates that code can not maintain an

honorable position among his professional brethren, but is regarded as an outlaw and an alien from the commonwealth of legitimate medicine. No man of honorable pride, or who wishes to preserve his proper self-respect, and the confidence of his professional brethren, can act regardless of the code of ethics; and in proportion as that code is strictly obeyed, will be the harmony, the honor, and the usefulness of the Profession.

But does the Association enforce its laws upon its members? Has it the power to inflict penalties upon those who violate its rules? Indeed, has it not! Let the enquiry be made of any who were present at its late meeting at Washington, and the answer will neither be hesitating nor doubtful. It is true no fines are levied, no one's liberty is restricted, nor any of his natural rights invaded in the infliction of penalties. The power is purely a *moral* one, but of such force as no one having an appreciation of moral qualities can easily withstand. The direct penalties of the Association extend no further than to reprimand and expulsion; but a reprimand from such a Body as this, composed of a large portion of the wise and distinguished of the Profession, and representing a constituency commensurate with its bounds, can not be lightly esteemed; and an expulsion from such a Body would be attended with consequences of loss of professional position and character, which no man or set of men can well afford to endure.

There is then a moral strength, a positive power, in the Association, which can enforce its rules; and judging from what we have already witnessed, there is every disposition to exert that strength, and to rigidly exercise that power. Much time was consumed at the last meeting in the discussion of subjects connected with the exercise of discipline —time which was precious, and which many thought should have been occupied in hearing scientific papers, several of such papers costing their authors much labor,

being in the hands of the secretaries of which not even synopses were read—but, after all was over, few regrets were expressed, in view of the benefits arising from the demonstration of the Association's moral power which occured. We imagine few hereafter, who regard their position in the Profession, will, under whatever plea of friendship, humanity, personal rights, or even conscience, step aside from the strict path indicated by the code of ethics or other rules of the Association.

We repeat that no man or set of men regarding their position in the Profession, can afford to disregard the reasonable and just demands of the Association—can afford to violate its rules enacted for the general good. Let those consider this view, if any there are, who contemplate, in any contingency, pursuing a course contrary to the specific rules deliberately enacted by this Body for the general harmony, advancement, and elevation of the Profession.

The American Medical Association is now firmly established. It has survived its period of infancy—it has put on its armor of strength; and if hereafter it be temperately and judiciously conducted, its power for good can scarcely be computed. A. B. P.

Leeches.

A constant supply of healthy and vigorous foreign varieties of these animals is considered, by practitioners in those districts where they can be afforded cheaply, to be an invaluable aid in practice. The cheapening of them in this country, where they have hitherto borne so high a price, we must consider no small benefit to community. To the enterprize and experience of Mr. WITTE, of New York (prominent in that market for the past twenty-five years, as an importer of Leeches) is due the credit for first accomplishing the above benefits, as he now offers,

through his own house and of those of his agents, fresh and healthy Swedish and Hungarian Leeches, at prices which will bring them within the reach of all requiring their aid.

In view of an increased use of Leeches in the interior, where they are now employed to a limited extent only, it has been suggested to us to state, for the benefit of our readers who may not be familiar with their use, the most practicable methods of preserving and applying them.

Leeches are sent out by dealers usually in boxes filled with marsh-sod and clay. It is best that they should be kept in this; all the care they then require, is to occasionally moisten the earth, and remove the dead or sickly Leeches, if there be any. The box should be kept in a moderately cool cellar. If more convenient to keep them in water, a suitable jar should be provided, in the cover of which are fine perforations, to allow of a circulation of air. Rain water should be employed, and changed daily in summer, though less often will answer in winter, always observing to remove dead and sickly ones, in order to preserve the rest, as the diseases affecting Leeches are mostly epidemic in their character.

It is necessary, in applying Leeches, that the part to be leeched should be perfectly clean and free from smell of medicine or perspiration. Handle the Leeches always carefully, and with clean hands. Having determined upon the number to be used, place them in a cupping-glass, wineglass, or even in the bottom part of a chip pill-box, and invert it over the part affected. It is often desirable to partly fill the cupping-glass with water, as they will bite more readily when covered by it. When they have attached themselves, the cup can be gently removed, and the part surrounded by a soft cloth, which will absorb the moisture and blood, and catch the Leeches when they drop off.

It often occurs that Leeches, from some unknown cause, can not be made to bite by ordinary means. We have found that, with such, the best success attends a slight scarification of the affected part, and the subsequent application of the Leech, by holding it in a soft dry towel, and directing its head to the scarified part, withdrawing it a little as it reaches it, thus compelling it to fix thereat. Vinegar, milk, molasses, etc., are useless and unnecessary to incite Leeches to bite.

For the application of Leeches to the gums, to the neck of the uterus, tubes are made, by means of which the Leech is compelled to attach itself to any spot desired.

PEREIRA states that "Several circumstances affect the fixing of Leeches; as the condition of the animal whether healthy or otherwise; the nature or condition of the part to which it is applied; thus Leeches will not readily attached themselves to the soles of the feet or the palm of the hands, or to the hairy parts—the presence of grease, vinegar, salt, and some other substances will prevent them from biting. DURHEIMS says Leeches will not bite those under the influence of sulphur, on account of the evolution of sulphureted hydrogen by the skin. The effluvia or vapors of the room, as the fumes of tobacco, sulphur, vinegar, will prevent their biting, or even cause them suddenly to fall off."

If a flow of blood greater than that swallowed by the Leech is desired, it must be excited, after the Leech drops off, by warm fomentations or poultices.

The flow of blood from Leech-bites is best checked by compression with lint, or the introduction of cone-shaped plugs of it into the wound, by means of a probe; the usual hæmostatics may also be used.

It is not recommended that Leeches once used be preserved; but if they are kept for future use, they should

not be stripped between the fingers nor placed upon salt (the first kills them outright, and the second blisters them) but they should be placed in a jar apart from those not used, changing the water occasionally, and when they have digested the blood they are gorged with, they will generally bite readily again.

It is thought by many that the bite of a Leech once used for bleeding a person suffering of an infectious disease, may be the means of communicating it to others.

F. S.

Clinical Instruction.

We regret that a communication on this subject from our friend, Dr. Z. PITCHER, owing to even an overplus of matter already in type when it was received, is compelled to lie over until our next No.

Professorial Changes.

The place rendered vacant in this Institution, by the recent lamented death of Prof. J. K. MITCHEL, has been filled by the election of Prof. DICKSON, well known throughout the country as an accomplished gentleman and scholar, an elegant writer, an able physician, and an agreeable and successful teacher. We congratulate Jefferson Medical College on the acquisition of so eloquent and popular a teacher, while we extend our congratulations to our friend, for his accession to so important a position in the largest Medical School in this country. We can but express our wish and belief that the connexion will prove one highly agreeable to all parties concerned.

We learn that the place made vacant by the resignation of Prof. DICKSON, in the Charleston Medical College, is filled by the appointment of Dr. P. C. GAILLARD, of Charleston. We do not positively know how Dr. GAILLARD

will lecture to a class of Medical Students on the Practice of Medicine; but this we can say, that if he makes as good a teacher as he is a writer and a man, it will be difficult, indeed, to find his superior. This is our deliberate judgment, and we are sure that all who know Dr. G. will sustain the opinion. We heartily wish him in his new situation that large measure of success which, we are confident, he deserves.

The Chair of Surgery, in the Charleston School, vacated by the resignation of Prof. GIDDINGS, is filled by the appointment of Dr. J. J. CHISOLM. We have not the pleasure of personally knowing Dr. C., but have no doubt a good selection has been made. We shall expect to hear of the continued prosperity of this well established school.

A. B. P.

New Medical Periodicals.

Three new Medical Journals have lately made their appearance,—one in Portland, Maine, and two in Savannah, Georgia. The Georgia Journals are bi-monthly; the Maine, monthly—the two former consisting of 72 pages each of printed matter, at $2.00 per annum; the latter of 48 pages at $3.00 per annum.

The name of the Georgia Journal first appearing is the *Oglethorpe Medical Journal*, and is edited by Drs. BYRD and STEELE; and that of the other *The Savannah Journal of Medicine*, edited by Drs. SULLIVAN, HARRIS, and ARNOLD. The Maine Journal is called *The Maine Medical and Surgical Reporter*, and is conducted by Drs. RICHARDSON and CUMMINGS.

We welcome all three of these Journals to our exchange list; and will take the liberty to caution our Savannah cotemporaries against personal controversies in their pages, assuring them that such controversies are generally, "like the troubled sea, continually casting up mire and

dirt." Perhaps the caution will be regarded as unnecessary; but *four* Medical Journals in the State of Georgia, and *two* in a city no larger than Savannah, seem to indicate a diversity of local interests and feelings, and these, up North, are apt to find expression, when such facilities exist as are afforded by such a number of periodicals so near each other.

Of the gentlemen connected with these enterprises, we are personally acquainted with only Prof. R. D. Arnold of the *Savannah Journal of Medicine*, and if the rest equal him in energy and talent, many new and valuable contributions will be added to our periodical literature, and the cause of science will, by these Journals, be materially advanced. A. B. P.

Omission Corrected.

In our Report of the Proceedings of the American Medical Association, in the last No. of the Journal, by some unaccountable omission in the record from which we copied, two of the Special Committees appointed to report at the next meeting at Louisville were not given.

One of them was the Committee on *Blood Corpuscles;* our learned colleague, Prof. A. Sager, chairman. The other was on *The Pons Varolii, Medulla Oblongata*, and *Spinal Marrow;—their Pathology and Therapeutics;* Dr. S. B. Richardson, of Ky., chairman.

Both of these gentlemen will doubtless make able Reports upon the abstruse subjects selected. A. B. P.

An Ingenious Novelty,

In the way of Soda-Water and Syrup Apparatus, is offered this season for the consideration of Pharmaceutists and others designing to add the sale of this agreeable and wholesome beverage to their business. It is a patented arrange-

ment, called Nichols' Syrup Apparatus, in which any number of syrups, and the soda itself, are drawn from one and the same orifice in the draught-stand, which sits upon the counter. By this means, an infinite amount of trouble is done away. The draught-stand is, of itself, a cooler, and the syrups are also kept in ice, insuring *cold* soda always with but small expense for ice.

We think this idea of Dr. NICHOLS a capital one, and that the arrangement forms an exceedingly attractive novelty to a store, nothing being more mystifying to the uninitiated customer than to see any and every syrup coming at request, as also the soda-water, and all out of the same orifice. A specimen of this apparatus, in working order, may now be seen at the drug store of HIGBY & STEARNS, in this city, who will receive orders therefor.

Queru's Cod Liver Oil Jelly.

We would call the attention of our readers to a Jelly of Cod Liver Oil, prepared by QUERU, Practical Chemist, of New York. This preparation possesses the advantage of disguising, in a great measure, the odor and taste of this valuable agent, while, at the same time, the gelatinous portion form but 15 per cent. of the whole. We have examined this Jelly, and find it to fulfil the end desired in thus being masked, and as it moreover has the approval of the New York Academy of Medicine, we can confidently recommend it to the Profession.

Selected Articles.

Case of Diabetes Mellitus.

Treated by Joseph Jones, A.M. M.D.,

Professor of Physics and Natural Theology in the University of Georgia, Athens; Professor of Chemistry and Pharmacy in the Medical College of Georgia, Augusta; formerly Professor of Medical Chemistry in the Medical College of Savannah.

Irish laborer, entered the Savannah Marine Hospital and Poor House, July 17th, 1857: age 24; height 5 feet 7 inches; light hair, blue eyes, scanty reddish-yellow whiskers; greatly emaciated—arms and legs resemble those of a skeleton; ankles œdematous. Weight, in health, 140 lbs.; now, it can not be more than 90 lbs.

Complained of continued pain in his head and bones, loss of strength, a voracious appetite, insatiable thirst, disordered digestion, and a continued and exhausting diarrhœa.

Had no fever and no enlargement of liver or spleen. Upon physical exploration, the action of the heart and lungs appeared to be normal.

The attempt was made to arrest the diarrhœa. Hope's Mixture produced a temporary effect, but did not arrest the waste of tissue. Opium, chalk mixture, and the usual remedies for diarrhœa, were administered. They checked the diarrhœa temporarily, but did not arrest the waste of tissue and loss of muscular and nervous force.

His diet was strictly guarded. It was found that the greater portion of the meat which he ate, passed entirely through the alimentary canal, and was voided in the form of fetid undigested masses.

The patient was placed upon farinaceous diet,—arrow-root, rice, and boiled milk and rice. Under this regimen, the stools became less numerous, and improved in appearance, but the destruction of tissue and loss of power was not arrested.

External applications had no effect whatever upon the pain in his head and limbs. Strychnia, in small doses, failed to strengthen his digestive apparatus and nervous system.

This treatment was continued for three weeks, and during this time his progress was steadily downwards. His tissues continued to waste away, and his strength every day grew less.

August 7th. Pulse, 70. Temperature of Atmosphere . . 81° F.
Temperature of Hand . . 96°½
Respiration, 19. Temperature under Tongue . . 100°

August 8th. Pulse, 64. Temperature of Atmosphere . . 81° F.
Temperature of Hand . . 97¼°
Respiration, 18. Temperature under Tongue . . 100°

Examination of Urine.—Reaction slightly acid.
Specific gravity, 1040.

Of a light straw-color, clear limpid, resembling the urine of a female suffering with hysteria. The resemblance extended only to the color and amount passed. The high specific gravity of the urine of this patient, at once distinguished it from the abundant light colored urine often passed by hysterical females. The amount of urine passed by this patient during the twenty-four hours, varied from one to one and a half gallons—an enormous quantity, considering his reduced state, and the large amount of solid matters held in solution in the urine.

Trommer's, Moore's, and the fermentation tests, and the rapid formation of the Torula Cerevisiæ, gave unequivocal evidence of the presence of grape sugar in large amount.

Chemical analysis showed that the specific gravity of the urine was due, in great measure, to the large amount of grape sugar which it held in solution.

Examination of Blood.—Specific gravity of Blood . . 1043·2
Specific gravity of Serum . . 1022.2

Coagulation of the blood commenced in a few minutes after it was drawn, and the clot was firm.

Under the microscope, the colored corpuscles were normal in color and form. They had a great tendency to stick together and form rolls, as in the blood of inflammation, and in the blood of the horse.

This phenomenon resembled, in all respects, that which occurs in well marked cases of inflammation.

The colorless corpuscles appeared to be deficient in numbers.

Serum of a light straw-color. When the serum was mixed with an equal quantity of water, and treated with a few drops of hydrochloric acid, sufficient to neutralize its alkaline reaction, no coagulation took place, even after prolonged boiling.

Nitric acid produced prompt coagulation of the albumen of the serum.

Water		Solid Matters	
In 1000 parts of Blood	838·510	In 1000 parts of Blood	161·490
In 1000 parts of Serum	922·341	In 1000 parts of Serum	77·659
(1) In 1000 parts of Liquor Sanguinis . .	919·039	(1) In 1000 parts of Liquor Sanguinis . .	80·961
(2) In 1000 parts of Liquor Sanguinis . .	887·339	(2) In 1000 parts of Liquor Sanguinis . .	112·661

FIXED SALINE CONSTITUENTS

In 1000 parts of Blood	9·061
In 1000 parts of Serum	5·319
(1) In 1000 parts of Liquor Sanguinis	5·325
(2) In 1000 parts of Liquor Sanguinis	7·181
In Blood Corpuscles of 1000 parts of Blood	4·443
In 1000 parts of Dried Blood Corpuscles	47·916
In 1000 parts of Moist Blood Corpuscles	11·981
In 1000 parts of Dried Residue of Blood	56·108
In 1000 parts of Dried Residue of Serum	68·488
(1) In 1000 parts of Dried Residue of Liquor Sanguinis	68.493
(2) In 1000 parts of Dried Residue of Liquor Sanguinis	63·739
In Solid Matters of Serum of 1000 parts of Blood	4·519

1000 PARTS OF BLOOD CONTAINED

Water			838·510
Dried Blood Corpuscles	92·702	Dried Organic Matters	88·259
		Fixed Saline Constituents	4·443
Fibrin			2·806
Albumen	49·539	Dried Organic Matters	48·157
		Fixed Saline Constituents	1·382
Extractive Matters	16·003	Dried Organic Matters	12·866
		Fixed Saline Constituents	3·137

1000 PARTS OF BLOOD CONTAINED

Moist Blood Corpuscles	370·808	Water	278·106
		Dried Organic Residue	88·259
		Fixed Saline Constituents	4·443
Liquor Sanguinis	629·192	Water	560·404
		Albumen — Dried Organic Residue	48·157
		Albumen — Fixed Saline Constituents	1·382
		Extractive and Coloring Matters — Dried Organic Matters	12·866
		Extractive and Coloring Matters — Fixed Saline Constituents	3·137
		Fibrin	2·806

1000 PARTS OF MOIST BLOOD CORPUSCLES CONTAINED

Water	750·001
Dried Organic Matters	238·018
Fixed Saline Constituents	11·981

(1) 1000 PARTS OF LIQUOR SANGUINIS CONTAINED

Water			919·039
Albumen	59·737	Organic Residue	58·110
		Fixed Saline Constituents	1·620
Extractive and Coloring Matters	17·345	Organic Residue	13·670
		Fixed Saline Constituents	3·682
Fibrin			3·302

(2) 1000 PARTS OF LIQUOR SANGUINIS CONTAINED

Water			886·740
Albumen	78.733	Organic Residue	76·537
		Fixed Saline Constituents	2·196
Extractive and Coloring Matters	29·469	Organic Residue	24·484
		Fixed Saline Constituents	4·985
Fibrin			4·459

The method of analysis employed in these investigations has been described by the author[1] in his Inaugural Dissertation for the degree of M. D. in the University of Pennsylvania, and in his Chemical[2] and Physiological Investigations, published by the Smithsonian Institution, and is similar in many respects to that employed by MM. BECQUEREL[3] and RODIER, BOWMAN,[4] and others.[5]

All physiological chemists have failed to ascertain with absolute accuracy the amount of solid matter in the serum of 1000 parts of blood.

The proportion by which this is determined, although the closest approximation to the truth that can be made in the present state of science, is founded upon the erroneous assumption that all the water of the blood exists in the liquor sanguinis. C. SCHMIDT has shown that three-fourths of the colored blood corpuscles are composed of water. Hence, to obtain the relation of the moist blood corpuscles to the liquor sanguinis, we must multiply the dried residue of the corpuscles by four.

Physiological chemists possess no method by which the blood corpuscles can be determined with absolute accuracy.

It is evident, from these facts, that when we attempt to calculate the moist blood corpuscles and liquor sanguinis of 1000 parts of blood, whatever error entered into the calculation of the solid matters of the blood corpuscles, will be increased four-fold, whilst the error in the calculation of the constituents of the liquor sanguinis will increase, not only in a direct ratio to the errors in the calculation of the blood corpuscles and solid matters of the serum of 1000 parts of blood, but also in a definite ratio to the actual increase or decrease in the 1000 parts of moist blood corpuscles. That error exists in this method of analysis is rendered evident when we calculate the constituents of 1000 parts of liquor sanguinis, from the data obtained by subtracting the moist blood corpuscles from 1000 parts of blood, and considering the remainder liquor sanguinis.

The results thus obtained do not correspond with those obtained from the actual analysis of 1000 parts of liquor sanguinis.

To render this error evident in the present method of analysis, I have in this and subsequent analyses, stated the actual analysis of 1000 parts of liquor sanguinis, and that calculated from the constitution of the liquor

[1] Physical, Chemical, and Physiological Investigations, upon the Vital Phenomena, Structure, and Offices of the Solids and Fluids of Animals. By Joseph Jones. (American Journal of Medical Sciences, July, 1856, p. 46.)

[2] Investigations, Chemical and Physiological, relative to certain American Vertebrata. By Joseph Jones. (Smithsonian Contributions to Knowledge. 1856.)

[3] Pathological Chemistry. By MM. Becquerel and Rodier. Translated by S. T. Speer, M. D. London: 1857, p. 19, et. seq.

[4] Bowman's Medical Chemistry, pp. 145—194. Philadelphia: 1850.

[5] Simons' Chemistry of Man, p. 142. Philadelphia: 1846. Lehmann's Physiological Chemistry. Translated by G. E. Day. Cavendish Society pub., vol. ii., pp. 153—280. London: 1851—1854. See, also, American edition, edited by Prof. Rogers. Vol. i., pp. 541—648. Manuals of Blood and Urine. By Griffith Reese and Marwick. Philadelphia: 1848.

sanguinis determined in 1000 parts of blood, by the subtraction of the moist blood corpuscles.

The former, by actual experiment, is always marked (1); the latter, by calculation, is always marked (2).

We will now compare this analysis of the blood of our diabetic patient with—1st, analyses of normal blood, and, 2nd, with analyses of abnormal blood.

The following is given by LEHMANN,[6] as the standard constitution of healthy human blood.

1000 PARTS OF MOIST BLOOD CORPUSCLES CONTAIN		1000 PARTS OF LIQUOR SANGUINIS CONTAIN	
Water	688·000	Water	902·900
Solid Constituents	312·000	Solid Constituents	97·100
Specific Gravity	1088·5	Specific Gravity	1028·
Hæmatin	16·750	Fibrin	4·050
Globulin & Cell Membrane	282·220	Albumen	78·840
Fat	2·310	Fat	1·720
Extractive Matters	2·600	Extractive Matters	3·940
Mineral Substances without Iron	8·120	Mineral Substances	8·550

The following are the physiological limits of the variations of the constituents of the blood, as established by the researches of MM. BECQUEREL[7] and RODIER:

IN 1000 PARTS OF BLOOD

The Water may vary from	760·000	to	800·000
The Specific Gravity of the Blood may vary from	1055·	to	1063·
The Globules may vary from	120·000	to	150·000
The Fibrin may vary from	2·000	to	3·500
The Solid Matters of the Serum may vary from	90·000	to	105·000
The Cholesterine may vary from	0·075	to	0·150
The Animal Soap may vary from	1·000	to	2·000
The Serolin may vary from	0·010	to	0·030
The Chloride of Sodium may vary from	2·000	to	5·000
The Soluble Salts may vary from	1·500	to	4·000
The Phosphates may vary from	0·500	to	1·000

IN 1000 PARTS OF SERUM

The Specific Gravity of the Serum may vary from	1027·	to	1032·
The Water of the Serum may vary from	880·000	to	900·000
The Solid Matters may vary from	100·000	to	120·000
The Albumen may vary from	70·000	to	90·000

The following is the typical formula of the constitution of the blood in health, and adopted by MM. BECQUEREL[8] and RODIER:

[6] Lehmann's Physiological Chemistry, English ed., p. 160, vol. ii. American ed., p. 546, vol. 1.

[7] Pathological Chemistry of MM. Becquerel and Rodier, English ed., p. 90.

[8] Pathological Chemistry, by MM. Becquerel and Rodier. English ed. p. 81.

Analysis of 1000 Parts of Blood.		Analysis of 1000 Parts of Serum.	
Specific Gravity of the Blood	1060·000	Specific Gravity of Serum	1028·000
Water	781·600	Water	908·000
Globules	135·000	Albumen	80·000
Albumen	70·000	Extractive Matters and Free Salts	12·000
Fibrin	2·500		
Fatty Matters, Extractive Matters and Free Salts	10·000		
Phosphates	0·550		
Iron	0·350		

If we carefully compare the analysis of the blood of our patient with these analyses of normal blood, we will find—

1. The specific gravities of the blood and serum are much lower than the normal standard.

2. The colored corpuscles are diminished in numbers, the dried corpuscles being only 92·702, and the moist blood corpuscles 370·808, whilst in health the dried corpuscles generally average 135·000 and the moist corpuscles 540·000.

3. The albumen of the liquor sanguinis is much less than normal, being only 49·539 in the 1000 parts of blood, whilst in health, it ranges from 70 to 90.

4. The extractive and coloring matters are 12·866, and are greater in amount than normal. When we compare the extractive matters with the diminished albumen and blood corpuscles, it is evident that they are far more abundant than normal.

5. The fixed saline constituents are normal in amount as compared with normal blood, but increased when compared with the diminished albumen and blood corpuscles.

It is important that we should, in the next place, compare the blood of this patient, reduced in flesh and strength to the last degree, with the blood of individuals whose blood has been depraved, and forces exhausted by other diseases.

The following examples are selected from numerous analyses of the blood of patients suffering with malarial fever, which I conducted in the Savannah Marine Hospital and Poor House, during the last summer and fall:

Case I.—*Intermittent Fever, neglected.* Irish laborer, entered the Savannah Poor House September 23d: age 22; height 5 feet 8 inches. Had been working in the marshes along the Savannah River, and suffered with chill and fever for two months, during which time he had no medical attendance. Complexion sallow; tongue, lips, and gums pale; digestion impaired. Complains of great weakness. Flesh not much reduced, but feels soft and unnatural.

Examination of Blood. — Blood watery in appearance — coagulated slowly in thirty minutes. Reaction decidedly alkaline. In the specific-gravity-bottle filled with blood, the colored corpuscles gravitated towards the bottom and left above a light yellow transparent clot. After standing twenty hours, the clot had contracted but little, and its consistency was very weak. Serum, of a light yellow color.

Specific Gravity of Blood	1030·5
Specific Gravity of Serum	1021·3

Water		Solid Matters	
In 1000 parts of Blood	877·553	In 1000 parts of Blood	122·447
In 1000 parts of Serum	927·757	In 1000 parts of Serum	72·243
(1) In 1000 parts of Liquor Sanguinis	925·725	(1) In 1000 parts of Liquor Sanguinis	74·275
(2) In 1000 parts of Liquor Sanguinis	911·124	(2) In 1000 parts of Liquor Sanguinis	88·876
		In Serum of 1000 parts of Blood	68·435

Fixed Saline Constituents

In 1000 parts of Blood	3·316
In 1000 parts of Serum	3·326
(1) In 1000 parts of Liquor Sanguinis	3·328
(2) In 1000 parts of Liquor Sanguinis	3·965
In Serum of 1000 parts of Blood	3·141
In 1000 parts of the Solid Matters of Blood	27·083
In 1000 parts of Solid Matters of Serum	45·901
In 1000 parts of Solid Matters of Blood Corpuscles	3·240
(1) In 1000 parts of Solid Matters of Liquor Sanguinis	44·779
(2) In 1000 parts of Solid Matters of Liquor Sanguinis	44·612
In Blood Corpuscles of 1000 parts of Blood	0·175
In 1000 parts of Moist Blood Corpuscles	0·841

1000 Parts of Blood Contained

Water			877·553
Dried Blood Corpuscles	51·987	Dried Organic Residue	51·812
		Fixed Saline Constituents	0·175
Fibrin			1·925
Albumen and Extractive and Coloring Matters	68·335	Dried Organic Residue	65·194
		Fixed Saline Constituents	3·141

1000 Parts of Blood Contained

Moist Blood Corpuscles	207·948	Water	155·861
		Organic Residue	51·812
		Fixed Saline Constituents	0·175
Liquor Sanguinis	792·052	Water	721·692
		Albumen and Extractive and Coloring Matters	65·194
		Fixed Saline Constituents	3·141
		Fibrin	1·925

1000 Parts of Moist Blood Corpuscles Contained

Water	749·519
Dried Organic Matters	249·154
Fixed Saline Constituents	0·841

(1) 1000 Parts of Liquor Sanguinis Contained

Water	925·725
Albumen, Extractive and Coloring Matters	68·817
Fibrin	2·032
Fixed Saline Constituents	3·326

(2) 1000 Parts of Liquor Sanguinis Contained

Water	911·167
Albumen, Extractive and Coloring Matters	82·312
Fibrin	3·965
Fixed Saline Constituents	2·430

The urine of the patient was of low specific gravity, diminished in amount, and contained no grape sugar.

Case II.—*Intermittent Fever, neglected—terminating in Bilious Remittent Fever, and complete alteration of the Chemical Constitution of the Blood and Tissues.* German butcher, entered the Savannah Poor House September 25th: age 23; height 5 feet 10 inches; weight, in health, 180 pounds.

His present weight can not be more than 110 pounds. Has been suffering with chill and fever for two months, and has had no medical attendance. Sallow, anæmic complexion; flesh and strength greatly reduced; nervous and muscular forces very feeble. Was brought into the hospital in a comatose state.

Stimulants, sinapisms, cut cups to the temples and back of neck, and blisters to the epigastrium and back of neck, aroused him from this comatose condition.

A few days after his entrance into the hospital, a large abscess formed upon the side of his head, in the region of the ear, and joint and angle of the inferior maxillary bone.

Notwithstanding that this abscess was lanced, the pus formed an entrance into the external meatus auditorius.

Large masses of the cellular tissue and muscles sloughed away, and the angle and superior portion of the inferior maxillary bone were almost completely stripped of flesh. The abscess compelled him to lie upon the opposite side of his body, and the arm upon which the weight of the body rested swelled enormously, until it appeared to be ready to burst, and finally the skin over the biceps muscle changed to a black color, and sloughed off in a single night, leaving the red quivering muscles entirely exposed. The biceps muscle sloughed entirely off from its lower attachment. Large ulcers appeared in various parts of his body.

The patient lingered, supported by tonics, nutritive diet, and stimulants, for three weeks.

After death, his liver presented a color a shade lighter than the slate color of the malarial fever liver, and in many parts it was regaining its normal hue. The spleen was enlarged, and in many parts completely degenerated in structure, being converted into pus and a substance resembling cheese. The surface of the spleen was covered with effused coagulable lymph, and bound to the liver by bands of coagulable lymph. The border next to the liver contained an abscess about the size of a walnut, filled with pus. The whole substance of the spleen was consolidated, and those portions which were not degenerated, resembled, when cut, the liver of malarial fever. The stomach showed the marks of chronic inflammation.

The glands of Peyer, in the lower portion of the intestinal canal, were enlarged, but pale, and not more congested with blood than usual.

Examination of the Blood of this patient four days after his entrance into the Hospital.—Blood coagulated slowly. In one specimen, the coagulation was remarkably slow, and the blood corpuscles gravitated towards the bottom of the vessel, and left above a clear, golden colored clot. This transparent portion of the clot was about one-fourth of an inch in thickness.

Serum, of a deep golden color. Reaction of serum, alkaline.

Specific Gravity of Blood	1036·6
Specific Gravity of Serum	1023·6

Water		Solid Matters	
In 1000 parts of Blood	840·511	In 1000 parts of Blood	159·489
In 1000 parts of Serum	913·950	In 1000 parts of Serum	86·050
(1) In 1000 parts of Liquor Sanguinis	912·665	(1) In 1000 parts of Liquor Sanguinis	86·978
(2) In 1000 parts of Liquor Sanguinis	882·723	(2) In 1000 parts of Liquor Sanguinis	117·277
		Solid Matters of Serum in 1000 parts of Blood	79·135

Fixed Saline Constituents

In 1000 parts of Blood	5·796
In 1000 parts of Serum	2·647
(1) In 1000 parts of Liquor Sanguinis	2·658
(2) In 1000 parts of Liquor Sanguinis	3·498
In 1000 parts of Solid Matters of Blood	36·341
In 1000 parts of Solid Matters of Serum	30·178
(1) In 1000 parts of Solid Matters of Liquor Sanguinis	30·205
(2) In 1000 parts of Solid Matters of Liquor Sanguinis	29·850
In 1000 parts of Solid Matters of Blood Corpuscles	42·914
In 1000 parts of Moist Blood Corpuscles	10·728
In Blood Corpuscles of 1000 parts of Blood	3·409
In Serum of 1000 parts of Blood	2·387

1000 Parts of Blood Contained

Water			840·511
Dried Blood Corpuscles	79·437	Dried Organic Residue	76·028
		Fixed Saline Constituents	3·409
Fibrin			0·877
Albumen, Extractive and Coloring Matters	79·096	Dried Organic Residue	76·708
		Fixed Saline Constituents	2·387

1000 Parts of Blood Contained

Moist Blood Corpuscles	317·748	Water	238·271
		Dried Organic Residue	76·028
		Fixed Saline Constituents	3·409
Liquor Sanguinis	682·252	Water	602·240
		Dried Organic Residue	76·708
		Fixed Saline Constituents	2·387
		Fibrin	0·877

1000 Parts of Moist Blood Corpuscles Contained

Water	749·873
Dried Organic Residue	239.284
Fixed Saline Constituents	10·728

(1) 1000 Parts of Liquor Sanguinis Contained

Water	913·022
Albumen, Extractive and Coloring Matters	83·303
Fixed Saline Constituents	2·647
Fibrin	0·928

(2) 1000 Parts of Liquor Sanguinis Contained

Water	882·723
Albumen, Extractive and Coloring Matters	112·433
Fixed Saline Constituents	3·498
Fibrin	1·285

Case III. — *Bilious Remittent Fever.* American seaman, native of Boston, entered the Savannah Marine Hospital September 26th: age 21; weight 150 pounds; height 5 feet 10 inches. Muscular system moderately well developed.

This is his first trip to Savannah. Has been sleeping at night on the deck of the ship, in the open air. The captain compelled all his men to sleep on board the ship, which was lying along the low marshy shore below the city.

This patient was brought in comatose, and has been passing his urine and fæces in bed.

September 29th.—Lies in a stupor; complexion sallow; teeth coated with sordes; tongue perfectly dry and as rough to the feeling as the surface of a newly sawed board. Pulse, 120; Respiration, 22.

Examination of Blood.—Blood coagulated slowly. Serum, of a deep golden color.

Nitric Acid showed that this color was due to the presence of bile.
Reaction of serum, alkaline.

Specific Gravity of Blood	1040·
Specific Gravity of Serum	1022·

Water		Solid Matters	
In 1000 parts of Blood	833·449	In 1000 parts of Blood	166·551
In 1000 parts of Serum	912·386	In 1000 parts of Serum	87·614
(1) In 1000 parts of Liquor Sanguinis	910·798	(1) In 1000 parts of Liquor Sanguinis	89·203
(2) In 1000 parts of Liquor Sanguinis	875·813	(2) In 1000 parts of Liquor Sanguinis	124·187
		In Serum of 1000 parts of Blood	80·033

Fixed Saline Constituents

In 1000 parts of Blood	6·314
In 1000 parts of Serum	6·620
(1) In 1000 parts of Liquor Sanguinis	6·630
(2) In 1000 parts of Liquor Sanguinis	8·759
In 1000 parts of Dried Blood Corpuscles	6·595
In 1000 parts of Moist Blood Corpuscles	1·648
In 1000 parts of Dried Residue of Blood	37·909
In 1000 parts of Dried Residue of Serum	75·558
In Serum of 1000 parts of Blood	5·747

1000 Parts of Blood Contained

Water			833·449
Dried Blood Corpuscles	85·968	Dried Organic Residue	84·400
		Fixed Saline Constituents	0·567
Fibrin			1·450
Albumen, Extractive and Coloring Matters	80·033	Dried Organic Residue	74·186
		Fixed Saline Constituents	5·747

1000 Parts of Blood Contained

Moist Blood Corpuscles	343·872	Water	258·804
		Dried Organic Residue	84·400
		Fixed Saline Constituents	0·567
Liquor Sanguinis	656·128	Water	574·646
		Albumen, Extractive and Coloring Matters	74·185
		Fixed Saline Constituents	5·747
		Fibrin	1·450

1000 Parts of Moist Blood Corpuscles Contained

Water	752·646
Dried Organic Residue	245·239
Fixed Saline Constituents	1·648

(1) 1000 Parts of Liquor Sanguinis Contained

Water	910·797
Albumen, Extractive and Coloring Matters	80·996

Fixed Saline Constituents	1·587
Fibrin	6·620

(2) 1000 Parts of Liquor Sanguinis Contained

Water	875·813
Albumen, Extractive and Coloring Matters	113·064
Fixed Saline Constituents	8·758
Fibrin	2·209

Under the use of stimulants, sulphate of quinia, and nutritious diet, this patient recovered, slowly. He was confined to his bed three weeks, and at the end of this time, exhibited the effects of the bilious remittent fever, in his pale, sallow, anæmic countenance, pale lips and gums, and tottering gait.

The violent nature of the malarial fever, contracted by sleeping in the open air in the low marshy land bordering our fresh water rivers, is forcibly illustrated by the subsequent history of the crew to which this patient belonged.

A few days after his admission into the hospital, the captain weighed anchor and sailed for New York. Before getting well out to sea, himself and the whole crew were taken sick. There was not a man with strength to work a pump or furl a sail. Fortunately, a small vessel perceived their signals of distress, and towed them into Darien. Before reaching this port, the captain and five out of seven of the crew had died. There were but two remaining out of eight, and these were extremely ill.

If we compare the blood of these cases with that of health, and with the blood of the patient suffering with Diabetes Mellitus, we will observe the following points of agreement and disagreement:

1. The colored blood corpuscles are diminished greatly and rapidly in malarial fever. This destruction of the colored blood corpuscles is far more rapid in malarial fever than in Diabetes Mellitus.

2. The salts of the colored blood corpuscles are diminished to a remarkable extent in malarial fever—whilst they are normal in amount in the blood of Diabetes Mellitus.

3. The blood coagulates slowly, and the clot is soft, in malarial fever —whilst the reverse was the case in this specimen of diabetic blood.

4. The fibrin is often diminished in malarial fever, and the serum presents a golden color—whilst in this case of Diabetes Mellitus the fibrin was slightly increased, and the color of the serum was normal.

That the poison of malarial fever induces profound changes in the colored blood corpuscles, and other constituents of the blood, I have demonstrated by the following facts:

a. The urine of patients suffering with malarial fever contains an increased quantity of iron. The increase of iron in the urine is subsequent to the destruction of the colored corpuscles in the blood.

b. In examinations of the organ after death, from all the forms of malarial fever — intermittent, remittent, and congestive — I have observed that the dark blood of the spleen and liver do not change to the arterial hue when exposed to the action of the oxygen of the atmosphere.

After death from phthisis, cirrhosis of the liver, organic disease of the circulatory apparatus, and apoplexy, and mechanical injuries, as far as my observations extend, the blood of the spleen and liver always change to the arterial hue when exposed to the action of the oxygen of the atmosphere.

c. Animal starch accumulates in the malarial-fever liver—whilst grape sugar, as far as my observations extend, is absent. I have tested the livers of malarial fever for grape sugar and starch. An abundance of starch[9] was obtained, without a trace of grape sugar.

The livers were set aside and examined after intervals of twelve hours. The last examination was made thirty-six hours after the first. At every examination the result was the same — an abundance of animal starch, and no grape sugar.

These facts are important, not only in their bearing upon malarial fever, but also in their bearing upon Diabetes Mellitus. M. Cl. Bernard[10] has demonstrated that the transformation of glycogenic hepatic matter (animal starch) formed by the liver, into glucose, is the result of the action of a special ferment, which is formed and exists in the blood, independent of the liver.

From the facts which we have previously stated it is evident that in malarial fever this ferment is destroyed, whilst the liver still possesses the power of transforming the nitrogenized and non-nitrogenized elements into animal starch.

We have now facts sufficient to draw important distinctions between malarial fever and Diabetes Mellitus.

In both diseases the blood corpuscles may be greatly diminished.

In both diseases the nervous and muscular forces may be correspondingly diminished.

Here the analogy ceases.

The destruction of the colored corpuscles is rapid in severe types of malarial fever, and slow in all the forms of Diabetes Mellitus. The salts of

[9] So abundant is this animal starch in the malarial fever liver, that if a small particle of the substance of the liver be mashed upon a glass slide, treated with a saturated solution of iodine in alcohol, and viewed under the microscope, numerous beautiful blue masses of this animal starch, colored by the iodine, will be seen. If the fibrous capsule be torn off from the surface of the liver, spread upon a glass slide, and treated with tincture of iodine, these blue masses will be seen scattered amongst the meshes of the fibrous tissue. With reference to the discovery of animal starch, see American Journal of Medical Sciences, Oct., 1857, p. 549.

[10] Moniteur des Hôpitaux, April 14, 1857; also, American Journal of Medical Sciences, July, 1857, p. 203.

the blood corpuscles are normal, if not increased, in this case of Diabetes Mellitus, whilst they are greatly diminished in malarial fever. In malarial fever, the blood loses its power of changing its color in the spleen and liver. In malarial fever, the color of the liver and the character of the bile is altered, and the spleen is enlarged, softened, and filled with a purplish brown mud.

In Diabetes Mellitus, all the organs are normal in appearance.

In malarial fever, the blood has lost its power of converting animal starch into glucose. In Diabetes Mellitus, this power is greatly increased.

The following table affords a comparison of Normal, Diabetic, and Malarial Blood:

	Normal Blood.	Normal Blood.	Diabetic Blood.	Malarial Blood.	Malarial Blood.	Malarial Blood.
Solid Matters in 1000 parts of Blood	200.000	240.000	161.490	122.447	159.489	166.551
Solid Matters in 1000 parts of Liquor Sanguinis	100.000	120.000	80.961	74.275	86.978	89.203
Dried Blood Corpuscles in 1000 parts of Blood	120.000	150.000	92.702	51.987	79.437	85.968
Moist Blood Corpuscles in 1000 parts of Blood	480.000	600.000	370.808	207.948	317.748	343.872
Liquor Sanguinis in 1000 parts of Blood	400.000	520.000	629.192	792.052	682.252	656.128
Fibrin in 1000 parts of Blood	2.000	3.500	2.806	1.925	0.877	1.450
Fixed Saline Constit. in 1000 pts. Moist Blood Corpuscles	8.120	10.500	11.981	0.841	10.728	1.648
Fixed Saline Constit. in 1000 pts. Dried Blood Corpuscles	65.000	70.000	49.916	3.240	42.914	6.595
Fixed Saline Constit. in 1000 pts. Dried Blood	70.000	80.000	56.108	27.083	36.341	37.909
Fixed Saline Constit. in 1000 pts. Solid Matters of Liq. Sang.	88.053	95.000	68.488	44.779	30.205	75.558
Fixed Saline Constit. in 1000 pts. Liquor Sanguinis	8.550	10.100	5.320	3.326	2.647	6.630

We have now all the necessary facts for the intelligent treatment of this case.

The indications in the treatment of this case of Diabetes Mellitus are —

1. To strengthen digestion.

His stomach failed to digest the nitrogenized elements — the very substances which he needs to supply the rapid waste of his tissues.

2. To afford the organic and inorganic materials of structure.

3. To quiet and strengthen the nervous system.

4. To arrest the destruction and transformation of the elements of the blood, tissues, and food, into animal starch and grape sugar.

1. *To strengthen Digestion.* — Meat passed entirely through the alimentary canal, without being digested. This is clear evidence that the gastric and pancreatic juices do not perform their offices. The active and essential principle of the gastric juice being pepsine, this must first be supplied. If pepsine and an acid be supplied, digestion will take place in a weak, diseased stomach, as well as in the healthy stomach. The truth of this assertion has been established by the experiments of Dr. L. Corvisart, of Paris,[11] to whom the Profession is indebted for the introduction of pepsine into the practice of medicine.

[11] "Dyspepsie et Consomption — usage de la Pepsine," by Dr. Corvisart, Paris, 1854.

"Recherches ayant pour but, d'administrer aux maladies qui ne digérent point des aliments tours digirés par le suc gastrique des animaux." Comptes Rendus, Aug. 16th, 1852 — Sept. 6th, 1852.

Etudes sur les Aliments et Nutriments — Nouvelle Methode pour le traitement des malades dont l'estomac ne digere point." L'Union Médicale, 1854, p. 17.

Andral, Longet,[12] Rillet, Barthez,[13] Grisole, Herard, Vogel, Schiff, Josi, Lecointe,[14] Ballard,[15] Bertholet,[16] Cahagnet,[17] Parise,[18] Huet,[19] Chambers,[20] Nelson,[21] and others,[22] have testified to the efficacy and value of pepsine in various diseases.

The fourth stomach of ruminants (rennet bag) is generally recommended as a source of pepsine. In hospital practice, however, I preferred to employ the stomach of the pig, for two reasons:

The pig is an omniverous animal. Its food and digestive process resembles more nearly that of man, and consequently its gastric juice must be better adapted to his wants.

For hospital purposes, the stomach of the pig can be much more readily obtained and prepared, than that of the cow or sheep.

When pepsine can be obtained pure from the apothecaries, or when the physician has time to prepare it himself, the Poudres Nutrimentives[23] of Couvisart is, by far, the most elegant and portable preparation.

[12] In typhoid fever. Bulletin Gen. de Therap. t. xlvii., p. 320.

[13] Sur l'apepsie (ou absence de digestion) chez les enfans, et sur le traitement de cette maladie par la pepsine. L'Union Médicale, Jan. 12th, 1856.

[14] Observation d'un cas de consomption ultime, tratee par la Poudre Nutrimentive. Bulletin Gen. de Therap. t. xlix., p. 268.

[15] Artificial Digestion as a Remedy in Dyspepsia, Apepsia, and their results. By Edward Ballard, M. D., London, 1857. This valuable book contains the method of preparing the pepsine, and also the report of numerous cases of disordered digestion, successfully treated with pepsine, by Dr. Ballard, and other practitioners of medicine.

[16] In Dyspepsia of a year's duration.

[17] In Dyspepsia and Vomitings of several years' duration.

[18] In Dyspepsia of early Pregnancy.

[19] Gastralgia after food, of several years' duration.

[20] Practical Lectures on the Management of Digestion in Disease. By T. K. Chambers, M. D. London Lancet, Aug., 1857, p. 101—Sept., 1857, p. 180, Am. ed.

[21] On Mellitic Diabetes in reference to its treatment by Rennet or Liquor Pepticus Præp. By David Nelson, M. D. London Lancet, Aug., 1857, p. 118, Am. edition.

[22] Rennet in Diabetes Mellitus. By Dr. James Gray. Glasgow Medical Journal, Oct., 1856. See also American Journal of Medical Sciences, Jan., 1857, p. 25.

[23] The following are the directions, given by M. Boudault, for the preparation of the medicine: "Take a sufficient number of rennet bags (the fourth stomach of the ruminants), open and reverse them, and wash them under a thin stream of cold water; scrape off the mucous membrane, reduce it to a pulp, and macerate it in distilled water twelve hours; filter; add to the liquor a sufficient quantity of acetate of lead, and after separating the precipitate, pass through it a current of sulphuretted hydrogen; filter again; evaporate, at a low temperature, to the consistence of a syrup, which is mixed intimately with starch pulverized, and dried at a temperature of 100° centig. In this state the gentle application of heat will reduce it to a dry mass readily reducible to a powder of uniform efficacy."

The power of the pepsine thus obtained, varies, and before the use of a specimen, we should first test its transforming power. The standard dose is that quantity of the powder which, when acidulated with three drops of lactic acid and added to 15 grammes (225 grains) of water, would transfer 6 grammes (90 grains) of fresh fibrin, finely cut up, and kept in a bottle, at a temperature of 40° centig., for twelve hours, with occasional

℞ Cut a pig's stomach into thin slices, and pour upon it one pint of vinegar, and preserve from decomposition (if the weather be warm), by surrounding with ice.

The pepsine and vinegar will reduce the tissues of the stomach to a uniform mass, or rather, fluid. Dose, fluid oz. j. three times a day, mixed with cold mutton or beef soup.

This preparation is useful for hospital purposes, because it is easily prepared, and at the same time is more efficacious than the pepsine ordinarily sold in the shops.

CHAMBERS,[24] and others[25] have shown that much of the pepsine now sold, possesses but feeble transforming powers.

Pepsine is not the only substance concerned in the digestion of albumenoid substances.

The connective tissues and muscular fibres are disintegrated and softened, but never completely dissolved by the gastric juice.

The ultimate fibrillæ of muscles which have escaped the action of the gastric juice, pass into the small intestines, and are there digested by the pancreatic juice.

M. L. CORVISART[26] communicated to the Imperial Academy of Sciences, April 6th, 1857, a Memoir on the Power of the Pancreas to Digest Azotized Food, in which he confirmed the assertion of PURKINGE and PAPPENHEIM, that the secretion of the pancreas is endowed, like the gastric juice, with

shaking. The average dose of the "Poudre Nutrimentive" is 15 grains. It may be taken dry or in solution, in unfermented bread, or in a teaspoonful of soup, or in sweetened water. It should always be taken with, or at the commencement of the meal on which it is to act. Ballard on Artificial Digestion, p. 10. See also Mémoire sur le principe digestif, les preparations nutrimentives, et les moyens propres à reconnaitre et a mesurer leur action. Acad. Imp. de Med. Séance, du 14 Fevrier, 1854, et Moniteur des Hôpitaux, 16 Fevrier, 1854.

The following is the mode adopted and recommended by Dr. James Gray, of preparing the rennet:

"The stomach of a calf (and the younger it is, the better) is gently washed with water, taking care not to injure the mucous membrane; it is then salted, tied up and allowed to dry. After this, it is cut into small pieces, macerated in a pint and a half, or two pints of water, according to the size of the stomach, for four days, or longer in winter, shaking it at intervals; the fluid is then poured off and bottled, and to test its power, a spoonful may be added to a pint of warm milk, which, if it curdles, it is now fit for use. A little spirits, or decoction of sparrow-grass, may be added to make it keep. The dose of rennet thus prepared, is a tablespoonful, three, four, or six times a day, about half an hour after each meal, and during the process of digestion, followed shortly after by an alkali, to neutralize the lactic acid formed. That which I recommend is the alkaline tribasic phosphate of soda; but the carbonate of potash will answer very well, either alone or combined with the tincture of nux vomica, in five or ten drop doses." Glasgow Medical Journal, Oct., 1856. See abstract of paper in American Journal of Medical Sciences, Jan, 1857, p. 215.

[24] Experiments upon Artificial Digestion. By T. K. Chambers, M. D. London Lancet, Aug., 1857, p. 133, Am. edition.

[25] Experiments upon the Action of Pepsine, by Edward H. Sieveking. Med. Times and Gazette, April 4th, 1857. See also American Journal of Medical Sciences, 26th July, 1857, p. 212.

[26] Moniteur des Hôpitaux, April 21st, 1857. See also American Journal of Medical Sciences, July, 1857, p. 206.

the property of dissolving azotized food, and demonstrated that the pancreatic juice, in disintegrating albumenoid elements, effects in them a transformation identical or analogous to that which the stomach produces.

The pancreatic juice acts only on those portions of the food which have escaped the action of the gastric juice, and at the same time it has no effect upon the digested products of the stomach.

When separated, the pancreatic and gastric fluids exercise their functions in full, and when mingled in their pure state, the two digestions are arrested. The two ferments, pepsine and pancreatine, destroy each other.

In the alimentary canal, this is prevented. 1st, by the pylorous which separates the two ferments. 2d, by the gastric digestion during which the pepsine is destroyed. 3d, by the bile which destroys in its course the activity of the pancreatine.

It is evident, therefore, that the pancreatine, or the pancreatic juice, so far from assisting digestion, would retard it. M. S. Corvisart states that he had failed to receive any benefit from the administration of pancreatine for the relief of derangement of the digestion in the intestinal canal.

In this case of Diabetes Mellitus, I employed a preparation of the pancreas of the pig, prepared in the same manner with the stomach. No beneficial results were produced, and it was abandoned and the pepsine retained.

2. To afford the organic and inorganic materials of structure.

As usual in the treatment of Diabetes Mellitus, the patient was furnished principally with animal food — eggs, mutton, beef, &c.

Bread and rice were allowed more frequently, however, than in the practice laid down in the books.

R	Phosphate of Iron	gr. ij.
	Phosphate of Lime	gr. iv.
	Phosphate of Soda	gr. vi.
	Phosphate of Potassa	gr. iv.

Mix and administer three times during the day, in the soup containing the pepsine. These salts were given because they form constituents of the blood corpuscles, muscles and brain, and nervous system.

R Cod-Liver Oil, tablespoonful three times a day.

Cod-Liver Oil is indicated in the treatment of Diabetes Mellitus, for two reasons:

To supply the fatty matters which have been consumed.

There is a close connection between phthisis and diabetes.

Writers upon this disease state that, in the majority of cases, phthisis makes its appearance before death.

3. To strengthen and quiet the nervous system.

The depressed spirits, fretful, pevish temper, impaired memory and intelligence, loss of sexual propensity, and complete exhaustion of nervous

power, call for those remedies which will act both as tonics and sedatives to the nervous system.

To accomplish these objects, opium and strychnia should be given simultaneously.

R Strychnia . . . . . gr. ij.
Extract of Gentian . . . . . gr. ij.

Mix and divide into 100 pills; one pill three times a day, to be gradually increased, according to the strength of the patient, and effects upon the nervous system.

Strychnia not only exerts a tonic influence upon the digestive organs, and muscular and nervous system, but also exerts a direct influence in diminishing the amount of sugar formed.

R One grain of opium at bed-time, and one grain in the morning, at nine o'clock.

Opium quiets the nervous irritability of the patient, and controls the diuretic influence of the sugar in the blood. It checks the excessive discharge, but does not prevent the production of sugar. Nevertheless, its action upon the nervous system renders it one of the most valuable of the secondary means.

As a stimulant and tonic to the digestive organs, fluid ounces ij. of brandy were administered, three times a day, in a cup of the officinal infusion of quassia and soda.

August 10th.	Pulse, 74.	Temperature of Atmosphere .	88° F.
		Temperature under Tongue .	98°
August 11th.	Pulse, 78.	Temperature of Atmosphere .	81° F.
	Respiration, 16.	Temperature under Tongue .	99 4-5°

August 12th. — Slight improvement of digestion. Bowels are not moved so frequently. He is exceedingly weak, and complains of pain in his head and bones.

August 19th. — Complains of great weakness and thirst; is in a profuse perspiration; says that his digestion improves, but his strength does not increase. The brandy causes him to sleep and perspire too freely, and is probably the cause of the increased flow of urine and loss of strength.

The experiments of George Harley, M. D.,[27] and M. Bernard,[28] have

[27] "Contributions to the Physiology of Saccharine Urine. On the Origin and Destruction of Sugar in the Animal Economy. By Geo. Harley, M. D." British and Foreign Medico-Chir. Review, July, 1857, p. 144.

[28] Gazette Medicale de Paris, Mai 10, No. 19, 1856, and Schmidt's Jarhb., vol. xciii., p. 24, 1857.

[29] Chimie applique a'la Physiologie et a la Therapeutique, par M. le Docteur Mialhe, Pharmacien de l'Empereur. Paris, 1856.

demonstrated that alcohol, ether, chloroform, methylated spirit, and ammonia, introduced into the duodenum, or injected directly into the portal vein, will excite an increased secretion of sugar. Healthy animals, thus operated on, were rendered for a time diabetic. This fact is important, not only in the treatment, but also in its bearing upon the causes of Diabetes Mellitus.

Drunkards are said to be peculiarly liable to this disease.

Pulse, 84.	Temperature of Atmosphere . . .	90° F.
Respiration, 17.	Temperature under Tongue . . .	104°

The acceleration of the pulse may be due to the action of the alcoholic stimulants. We will discontinue the brandy, and substitute 10 grains of carbonate of ammonia, three times a day, in a cup of the infusion of quassia and soda.

The carbonate of ammonia is administered, first, as a stimulant, and second, as a means of diminishing the amount of grape sugar.

Some chemists[29] have supposed that the occurrence of alkaline carbonates is necessary for the decomposition of sugar in the animal economy, and that in Diabetes the passage of glucose into the urine is due to a want of alkalinity in the blood.

Direct experiment does not support this theory, for the researches of C. G. Lehmann,[30] Bouchardat, and Bernard,[31] have proved, on the con-

In this work, Mialhe, after examining the various hypotheses which have been proposed to explain the nature of Diabetes Mellitus, comes to the conclusion that its true cause is a deficiency of alkali in the blood. To the objection that the blood of diabetic patients is never either neutral or acid, but always alkaline in its reaction, Mialhe answers that it is difficult to determine the amount of the alkalinity of the blood; and again, that part of the alkaline reaction of this fluid is derived from the presence of alkaline phosphates which possess no power of decomposing glucose. He is inclined to consider that the alkaline carbonates are deficient or absent, the phosphates remaining intact, thus preventing the fluid from exhibiting anything but an alkaline reaction.

In the treatment of Diabetes, he acts strictly upon these indications, and prescribes lime-water, magnesia, vichey water, bicarbonate of soda, alkaline and vapor baths, flannel, friction, exercise, animal diet, and some times sudorifics. M. Mialhe relates the case of an Italian professor of music, afflicted with Diabetes Mellitus. Under the alkaline treatment the sugar rapidly diminished, and the patient recovered.

[30] Prof. C. G. Lehmann injected a solution of grape sugar, prepared from starch, into the veins of thirty-seven dogs and rabbits, and in every instance grape sugar appeared in the urine; and the reaction of the urine was acid. The sugar passed so rapidly into the urine, that it was frequently detected five minutes after its injection, and then when only 0·1 of a gramme was injected.

Caustic, alkalies, and their carbonates, associated with grape sugar, were also injected into the veins of rabbits.

Notwithstanding the caustic, alkalies, and the carbonates, the urine not only contained grape sugar, but also exhibited an acid reaction.

Prof. Lehmann also injected dilute solutions of tartaric and citric acids into the stomachs of rabbits and dogs, fed on food poor in alkalies. Although the blood was thus thus rendered poor in alkalies, while at the same time vegetable acids were introduced, still not a trace of sugar appeared in the urine. Physiological Chemistry. By Prof. C. G. Lehmann. English edition, vol. iii., p. 233. American edition, vol. ii., p. 357.

These experiments have been repeated by Uhle, with similar results. Dis. Inaug. Med. Lips., 1852, p. 19.

trary, that the blood of diabetic persons preserves its alkalinity, and that the alkalies of the blood do not promote the oxydization of sugar to the extent asserted.

Direct experiment and clinical facts, on the other hand, have shown that, in certain derangements of the nervous and circulatory systems and of the constituents of the blood, the production of grape sugar is increased and it passes into the urine; and farther, that the alkaline carbonates diminish the proportion of sugar in the urine of diabetic patients.

We may then employ the alkaline carbonates in the treatment of Diabetes Mellitus, although their action upon glucose in the animal economy is not well understood, and probably differs, both in degree and kind, from that asserted by MIALHE.

August 20th.—Feels very weak and complains of a pain in the region of his liver. Bowels are still irregular, but improving.

Pulse . .	72.	Temperature of Atmosphere . . .	83° F.
		Temperature of Hand . . .	97°
Respiration .	14.	Temperature under Tongue . . .	100¼°

August 26th.—Improving in strength and spirits. Digestive functions restored. Slowly gains flesh. Digests large quantities of meat with ease.

℞ Cane sugar oz. xij. during twenty-four hours.

HOPPE'S[32] Investigations upon the action of cane sugar upon the animal economy have established the following facts:

1. No trace of grape sugar was found in the urine or fæces during continued feeding with cane sugar.

2. When sugar and meat were given together, the weight of the animal increased much more rapidly than when meat alone was given.

3. When sugar and meat were consumed, urea was excreted in smaller quantity than when meat alone was taken.

4. By exclusive sugar diet, the excretion of urea was depressed to its lowest amount.

5. By the presence of much sugar in the blood, the albuminous substances are preserved from oxydization.

The albumen thus stored up appears to be decomposed during the development of fat. In this manner, sugar produces fattening, only when, at the same time, albuminous substances are liberally supplied.

6. The temperature of the body was not increased by the addition of sugar to the allowance of meat.

[31] Moniteur des Hôpitaux, May 14, 1857.

[32] F. Hoppe, on the Influence of Cane Sugar in Digestion and Nutrition. Virchow's Archiv., vol. x., p. 144, S. S., 1856.

7. The health of the animals experimented on, was in no way injured by feeding on large quantities of cane sugar, in addition to a liberal supply of meat.

September 23d. — Has continued steadily to improve in health and strength, and is now able to walk about the hospital grounds, and assist in nursing the patients.

The amount of urine voided daily has diminished.

Oct. 20th.—His muscular and nervous forces have increased greatly. His face and limbs have filled out. His spirits are excellent, and he says that he is now as fleshy as in health.

He is able to act as assistant nurse, and often sits up all night with those patients who require his services.

The amount of urine excreted daily has greatly diminished, and ranges from 70 to 90 fluid ounces.

The grape sugar has diminished greatly in amount, but has not entirely disappeared.

At this date I resigned the charge of the Savannah Marine Hospital and Poor House.

It is evident, that sufficient time had not elapsed to warrant the assertion that this case was cured; nevertheless, the remedies used produced decided beneficial effects, and were the means, in Providence, of arresting the disease, when the patient appeared to be in the last stages of Diabetes Mellitus, and upon the borders of the grave.

I have endeavored to give a simple statement of the facts observed in this case, the plan of treatment pursued, and the reasons which led me to the adoption of this mode of treatment.

Although this is but a single case, the treatment of which was not even conducted to its termination in complete health, or death, still, I am persuaded that, in the present state of Medical Science, every successful effort to arrest so formidable a disease as Diabetes, even for a few months, will be considered worthy of an examination by Practitioners of Medicine.

[*Southern Medical and Surgical Journal.*

Gutta Percha Ring, SS, and Horse-Shoe Pessaries.

By Edward Parrish.

These useful instruments have been introduced into practice within the past few years, as an improvement upon the metallic, glass, wooden, ivory, and india rubber Pessaries formerly used. The advantages of gutta percha for this purpose are, its entire resistance to the action of the secretions, and consequent durability and cleanliness; and its great lightness and

saving bulk, which render it better adapted than any other substance with which we are acquainted for the purpose.

The gum elastic Pessaries, formerly so much in use, were liable to soften down and become offensive when used for any length of time, while gutta percha, though softened by a high heat, is, at the temperature of the body, firm and yet pliable, and may be worn for years without deterioration. Gutta percha Pessaries, after being in constant use for eighteen months, have been removed in as good condition as when first introduced.

The danger of glass Pessaries has always been an objection to them with many practitioners; and instances are not rare in which they have been broken while in use, making their removal both difficult and dangerous.

Wood is too porous to have ever been generally used, on account of its so soon becoming offensive; while ivory is but little better, soon undergoing change under the influences to which it is exposed.

In regard to the shape of Pessaries, the most important and generally popular, is undoubtedly the annular or ring shape. The *modus operandi* of the instrument is, that by distending and elongating the canal, it renders prolapsus or retroversion of the uterus impossible, and by retaining the organ *in situ*, it enables the parts to assume their normal condition. To this end the circumference of the disc Pessary is the only useful portion, and in the ring Pessary, unimportant and worse than useless centre being omitted, we have a lighter and better instrument.

Fig. 1 represents the ring-shaped Pessary, the extension being made in the line of the canal, the outside circumference of the instrument is greater than its thickness, thus distributing the pressure over a larger surface, and rendering excoriation less liable to occur. These instruments, as originated by Dr. Wm. M. Breed, of Philadelphia, who has used them with success during an extensive practice in connection with one of the charities of this city, and otherwise, are constructed of solid gutta percha over a well-secured steel spring; thus obviating the former objectionable method of merely coating a spring wrapped with cotton, which, being readily cracked, soon became offensive.

A medium sized Pessary of this kind weighs but 120 grains. By their great elasticity they may be readily compressed into an oval form, thus facilitating their introduction, and when *in situ* they immediately resume their original shape.

They have received the approbation of Dr. C. D. Meigs, Dr. Goddard, Dr. E. Wilson, and other eminent practitioners in Philadelphia and elsewhere; and their introduction has greatly facilitated the cure of those most distressing and obstinate maladies, prolapsus, retroversion, and procidentia of the uterus.

The SS, and Horse-Shoe Pessaries are constructed in a similar manner,

but so that their curves and shape may be readily altered to suit the circumstances of the case. Heretofore these have been made of metal, those of block-tin being objectionable on account of their weight, while the hollow gold or silver ones were placed beyond the reach of many by the expensiveness of the material. The use of gutta percha, while retaining all the advantages claimed for this form of instrument, is free from any of the objections against metallic substances.

These instruments, as manufactured under the superintendence of the originator, are offered to the Profession with entire confidence as to their superiority, the greatest care being taken to secure their entire fitness for the delicate uses for which they are intended.

Pharmaceutical and Miscellany.

Compound Syrup of the Hypophosphites.

Since the paper of Dr. JOHN CHURCHILL appeared, in which he asserted that these salts were specifics in tuberculosis, the demand for them upon the manufacturing pharmaceutist has been quite unprecedented in the history of the introduction of new remedies.

A medical friend of ours, who has employed the Hypophosphites quite extensively in his practice, and with gratifying results, states, that, in diseases attended with diarrhœa, or tendency to looseness of the bowels, the use of the Hypophosphite of Soda, in connection with the other salts (as in the compound Syrup of Hypophosphites) is contra-indicated on account of its aperient or laxative effect.

We have found the following formula, for a Compound Syrup of the Hypophosphites to give satisfaction, and to offer an agreeable form in which they can be administered:

Take	Hypophosphite of Lime	gr. 256
	Hypophosphite of Potassa	gr. 128
	Hypophosphite of Soda	gr. 64
	Hypophosphite of Ammonia . . .	gr. 64

Rub these salts together with half a fluid drachm of terhydrated hypophosphorus acid, and then pour upon the mixture four ounces of boiling water; after trituration, pour off the solution upon a filter; with the residue remaining in the mortar, form a solution, by adding to it a sufficient quantity of the hypophosphorus acid (about one-half drachm), and four fluid ounces more of boiling water, and pour it upon the filter; to the filtrate add of syrup of orange flowers,* previously acidulated with a little hypophosphorus acid, enough to make the whole measure sixteen fluid

*Syrup of orange flowers is made by dissolving, without heat, twelve ounces of refined sugar, in powder, in eight fluid ounces of distilled orange flower water, such as is imported from France in flaçons or in copper cans.

ounces. The dose is one teaspoonful, three or four times a day, representing of

Hypophosphite of Lime	2 gr.
Hypophosphite of Potassa	1 gr.
Hypophosphite of Soda	½ gr.
Hypophosphite of Ammonia	½ gr.

If it is desired to exhibit a chalybeate in connection with the compound syrup, the Hypophosphite of Iron can be added to it in the proportion of one-half or one grain to the fluid drachm.

Prof. Wm. Proctor's process for preparing this salt, with those for the salts of the alkaline basis, was given in our Journal for May.

F. S.

Valerianate of Atropine.

M. Miette recommends, in the *Comptes Rendus* (December 21st, 1857), this organic valerianate to be prepared by pouring a slight excess of valerianic acid into a very concentrated alcoholic solution of Atropine, adding about twice its volume of distilled water to the mixture. The saturation of the Atropine must be effected in the cold; the whole is then exposed, in a shallow vessel, to spontaneous evaporation, at a temperature not to exceed 122° F.

This valerianate is uncrystallizable, and presents the appearance of a bright yellow syrupy liquid, changing to orange in contact with the air.

[*Chemical Gazette, February 15th*, 1858.

Alumina as a means of cheapening the Extraction of certain Organic Alkaloids and Proximate Principles.

Hydrated Alumina possesses the property of precipitating certain vegetable colors from their solutions, while there are others which it does not affect. This affords the means, Professor Rochleder states, of separating many substances, especially the constituents of plants.

It also exhibits this property towards other organic substances. It possesses advantages over hydrated oxide of lead, in being readily obtained in a pure state by the use of sulphide of ammonium.

In many cases, a solution of alum can be directly added to the aqueous extract of a plant, and the organic principle precipitated, combined with the Alumina by adding ammonia. As an example, he gives the preparation of Æsculin, from the horse-chestnut. An aqueous decoction of the bark mixed with solution of alum and ammonia in excess, gives a fawn-colored precipitate leaving the filtrate of a pale wine-color; this filtrate is neutralized with acetic acid, and evaporated to dryness, the residue consisting of sulphate of potash and ammonia, and some acetate of ammonia.

In this residue, the Æsculin is all contained, and is separated, by boiling with a little strong alcohol, and filtering: it crystallizes upon the evaporation of the spirit. This, by once re-crystallizing, is obtained pure. Æsculin, obtained by this method, is produced with less cost, trouble, and time than by the usual modes.

It will be possible to obtain many proximate principles, etc., at a cheap rate, which hitherto, from their cost, have found no place in medicine.

[*Chemical Gazette, March*, 1858, from *Journ. fur Prakt. Chemie.*

Ammonio-Oxide of Copper

Is stated, by Dr. Ed. Schweizer, to possess the remarkable property of dissolving vegetable fibre at ordinary temperature.

Cotton, when treated with a solution of this salt, soon assumes a gelatinous consistence, and, after some kneading with a glass rod, is changed into a mucous liquid. No heat is evolved; with an excess, a clear solution is the result, which may be filtered.

Upon super-saturating the solution with hydrochloric acid, a gelatinous precipitate of disorganized cellulose is thrown down; this, when washed and dried upon a water bath, leaves a horn-like, transparent mass, brittle, and resembling starch paste. Heated in the air, it burns away without reside.

Paper and *linen* are also dissolved, though more slowly than cotton; and its solvent power extends to some animal tissues. *Silk* dissolves more easily than cotton; *wool* is only dissolved by the aid of heat.

[*Chemical Gazette, Feb. 15th*, from *Journ. fur Prakt. Chemie.*

Surgical Uses of Perchloride of Iron.

The following remarks we take from "Notes on the Practice in the Hospitals of Paris," by Dr. George Suckley, in the *New York Journal of Medicine*, May, 1858:

In the treatment of *varices*, this article is now extensively used, and it has also been employed for the rapid coagulation of the contents of aneurismal sacs. The strength of the solution used is that recognized in French Pharmacy as of the "thirtieth degree." (This is by weight, 16 parts of the salt to 84 of water.) *Weaker than this, the coagulating effect is lost*, and if used much stronger, it acts as a *dangerous caustic.* The solution should be made just before using, because, if kept four or five days, it decomposes.

I witnessed an operation for the *radical cure of varices* by this method, at La Pitié. The veinson the lower limbs were markedly dilated and tortuous, certain of the dilatations along the course of the long saphena being as large as an ordinary thimble. In these larger dilatations, the quantity injected was five drops, thrown in as usual by the peculiar syringe used, by which every turn of a screw injects exactly half a drop, thus easily regulating the amount employed. In places where the varices were smaller,

a less amount was used. Coagulation was almost instantaneous, and the ultimate result of the case very satisfactory.

In operating for varices by this method, it is necessary to compress the veins by a bandage on the cardiac side of the point of operation, as in ordinary cases of venesection. This has doubly a beneficial effect; first, by guarding against the risk of throwing such a dangerous solution into the general circulation; secondly, by causing the veins *to dilate well*, the clots are *larger*, and thus more thoroughly obstruct the circulation through the vein.

I saw the property that the Perchloride of Iron has of causing instantaneous coagulation put to a novel but very useful purpose by MAISONNEUVE. This surgeon, during the course of the removal of a cancerous tumor in the submaxillary region, finding that a continuous oozing from the capillaries and smaller blood-vessels was not only obstructing his view, qut also weakening the patient, who was not in a condition to stand the hemorrhage, called for a solution of the article under consideration, with which he sponged the wound, with the effect of instantly controlling the hemorrhage.

The dry Perchloride of Iron may be prepared by digesting an excess of dry sesqui-oxide of iron in chemically pure hydrochloric acid, pouring off the clear portion, and evaporating this until it solidifies upon cooling. It must be kept in close stopped bottles, and the solution from it always prepared extemporaneously, for, on account of its liability to decompose, it will not keep.

Common Yarrow (Achillea Millefolium).

To this plant is now ascribed decided power, in addition to its other virtues, in promoting the uterine functions, procuring the re-appearance of suppressed menses, etc.

Our Gold Coin as a Standard by which to adjust Weights.

Dr. W. H. PILE, of Philadelphia, the maker of the best specific gravity bottles we have ever seen, suggests, in an article published in the *American Journal of Pharmacy*, that druggists and physicians possess in our Gold Coin a practical and useful standard after which to regulate their Weights, more particularly those employed in dispensing. He states:

The weight of our present gold coinage, as established by law, is as follows:

The	$20 00	gold	piece	to weigh	516 troy grains.
"	10 00	"	"	258	"
"	5 00	"	"	129	"
"	3 00	"	"	77 2-5	"
"	2 50	"	"	64 1-2	"
"	1 00	"	"	25 4-5	"

In my trials of the $2.50 piece, which I prefer as a standard, I found the actual weights of several of them, taken promiscuously, to be 64·5

grs.; 64·63; 64·43; 64·54; 64·38; 64·37; giving an average of 64·47 grs., which is only three-hundredths of a grain less than their legal weight.

By combining different pieces of gold, the weight being shown as above, the ordinary avoirdupois weight may also be regulated; thus—a $20 piece on one side of a balance, and a $3 piece on the other, would give 438 3-5 grains difference, being only 1 3-5 gr. heavier than the avoirdupois ounce.

Eighteen dollars and fifty cents in gold should weigh 476·3 grs., or 3-7 grs. lighter than the apothecaries' ounce.

Euphrasia Officinalis (Eyebright)

Is recommended, by Dr. KYLE, in the *Western Lancet*, to be administered in the form of infusion, as a remedy for Epilepsy.

Anecdotes of Mead.

This celebrated physician lived in 1696. According to one authority, MEAD's rise in life was owing to his being called in to a celebrated Duchess, distinguished for her intemperate propensities. The Doctor had sacrificed rather more freely to the jolly god than was consistent with a healthy exercise of his faculties, and, as he was feeling his patient's pulse, his foot slipped, when he ejaculated—"Drunk!—yes, quite drunk!" alluding to himself. The Duchess, imagining he had found out her complaint, which she was most anxious to conceal, told MEAD, if he kept her secret, she would recommend him. He did so, and the Doctor rose to fame and opulence.

It is said that MEAD and WOODWARD fought a duel, both drew, and that MEAD, not loving cold iron, retreated; when WOODWARD, making a false step, fell down. His antagonist then ran in, and, standing over him, demanded if he would submit and ask his life. "If you threatened me with your *physic*, I might beg my life," said WOODWARD, "but I certainly shall not ask it for fear of your sword." Among the prints which adorn WARD's "Lives of the Gresham Professors," is a gateway, entering from Broad-street, marked 25. Within are figures of two persons, the one standing, and the other kneeling. These represent Dr. WOODWARD, the Professor of Physic, and MEAD; and allude to the transaction referred to above:—

"Physicians, if they're wise, should never think,
Of any arms but such as pen and ink."—GARTH.

[*Physic and Physician.*

Correspondence.

From our Chicago Correspondent.

This city is prolific in medical societies. There is the Cook Co. Society, and also a German Medical Society, and the Chicago Pathological Society — the latter a new organization, consisting, I believe, of a few persons who propose to be a small club, which shall meet, sup, and talk physic together.

The health of the city is fair; what sickness there is, besides the usual accidental cases, is mostly of an acute inflammatory form. The weather is wet and cold, and a certain number of inflammations of the respiratory organs results from it.

Considerable attention has of late been attracted to the Eclectic remedy called Gelsemin, the active principle of the *Gelseminum supervirens*, or Yellow Jessamine. It seems to be a narcotic, to some degree, but its chief action is that of a sedative to the organs of motion, including the heart: hence, it may be used, like veratrum viride, to reduce the pulse, while it is, at the same time, free from any tendency to produce nausea, vomiting, or catharsis. It will probably be a valuable article to use in combination with the veratrum. The Eclectic preparations are being tested here, to a considerable extent, and several of them will, I think, remain as really worthy of a place in the Pharmacopœia. Gelsemin is introduced in the appendix of the new edition.

The following prescription is used by Dr. H. Parker, of this city, as a valuable cholagogue cathartic. It is claimed for it that, while it arouses the liver like a dose of calomel, it operates so blandly that the patient is absolutely and entirely free from any disagreeable feelings during its operation:

R	Podophyllin	gr. ij.
	Caulophyllin	gr. ij.
	Leptandrin	gr. ij.
	Ext. Hyosciamus	gr. v.
	Ol. Anisi	gtt. ij.

Mix — make ten pills. Dose, one or two.

It is understood that the first three articles are of Keith's manusacture, which he (Keith) claims to be different from the articles of the fame name from other chemists, because Keith makes a concentration of *all* the active principles in the plant treated, while the others put up only one principle in each plant. I do not know, therefore, whether the articles of any other manufacture would work in an equally kindly manner.

I have tried the prescription two or three times, and it thus far confirms its good reputation.

Dr. ANDREWS, in repeating his experiments in preserving vaccine virus in glycerine, finds that some samples of glycerine act quite con trary to others, and, instead of preserving the activity of the virus, completely and rapidly destroy it. He is engaged in some experiments to ascertain the cause of the difference, and, if possible, to render the results more sure.

The City Hospital, with its proposed compound board of physicians and homœopaths, sleeps in the profound coma of sap on the brain, and probably will never awaken.

STAUB, the murderer, who was hung lately, was given up by the Court for dissection. I had an opportunity of inspecting the cadaver. The execution was performed by means of the weight and pulley, which jerks the victim violently upward. The halter drew below the larynx so that the whole force was exerted upon the middle of the neck, where dislocation is nearly impossible. The neck was not broken; the face showed a tumid, dusky appearance, like any other case of quick asphyxia. There was no appearance of erection of the penis, and no evacuation of semen. The brain was congested, but not apoplectic. This case, taken in connection with some other facts, leads me to think that where, in hanging, the rope grips well below the larynx, the usual evacuation of semen will not take place, and that this discharge, when it does happen, is due, not to the stretching and irritation of the top of the spinal cord and cerebellum, as claimed by the phrenologists, but is a reflex action produced by the crushing and irritation effected by the rope, in those instances where it makes its grip at the larynx between the thyroid cartilage and the hyoid bone. I had an opportunity to observe, in one patient, that a sudden and violent irritation of the pharynx and larynx would produce a prompt and decided spasm in the muscles of the perineum, although not sufficient to ejaculate the seminal fluid. This spasm occurred many times, and always at the recurrence of a strangling paroxysm of coughing. The simultaneous development which takes place, at puberty, in the larynx and in the genital apparatus, is also proof of the nervous sympathy between them; and many other facts might be adduced in support of the same doctrine. X.

THE

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Original Communications.

ART. XXIII.—Inanition.

By THOMAS LOTHROP, JR. M. D.

Concluded from the July No.

STARVATION, when considered in the ordinary acceptation of the term, is accompanied by two constant symptoms—hunger and thirst. The first of these, or hunger, is directly dependent upon an absence of solid aliment, and its situation is referred to the stomach, although it is an indication of the requirements of the system at large. But what is hunger? That it is directly connected with a want of nourishment, and is the medium by which the system manifests this condition, is self-evident; while its connection with some condition of the stomach is made apparent from the fact that it can be temporarily alleviated by the introduction into this organ of some substance which is not of an alimentary character; of the precise nature of this condition we have no certain and definite knowledge. By some,

it has been attributed to a state of emptiness of the stomach; to the action of the gastric juice upon its coats; by Dr. BEAUMONT to the distension of the secreting follicles by this fluid: but all these hypotheses present objections of so obvious and palpable a nature that they can not be regarded as affording even a tenable explanation of the cause of this distressing sensation. For when we take into consideration the marked influence which nervous impressions, particularly of an emotional character, as for instance joy or grief, exert over this sensation, and also the rapidity of its removal upon the introduction of some solid substance, and its speedy return if it does not prove capable of solution and assimilation, we are led to the opinion that there must exist some peculiarity of the circulation of the part, to which its origin can be traced. In view of these facts, it is suggested by Dr. CARPENTER, that there is a "certain condition of the capillary circulation of the stomach, which is preparatory to the excretion, and which is excited by the influence of the sympathetic nerves, which communicate the wants of the system." By this theory, all the phenomena are readily and satisfactorily explained; for the vessels, by being unloaded in the production of the gastric solvent, and the general system, in being supplied with the requisite nutriment, relieve the nerves of the impressions made upon them by the distended capillaries, and the sensation disappears. If the ingested substance be not alimentary, the relief proceeds from the exudation which takes place in the act of secretion of the gastric juice. But as soon as the stomach becomes cognizant of the non-supply of the wants of the system, the sensation of hunger returns with more than its accustomed vigor.

Thirst, on the other hand, is that sensation by means of which the system makes known its want of liquids; and though referred to the fauces as its seat, it is considered by physiologists to depend upon impressions made on the

nerves of the stomach. The fauces hold the same relation to the requirements of the system, as far as regards liquids, as the stomach, in the evidence which it affords concerning the demand for solid aliment. The one, though a frequent, is not a constant, accompaniment to the other. The hygrometric condition of the atmosphere, the exposure of the skin to the direct action of water, and the excess or deficiency of the water excretions, materially modify this sensation, while it is a familiar fact that the ingestion of common salt, or, in chemical language, chloride of sodium, will give rise to the most intense thirst, the purpose of which is to cause the imbibition of fluid, by which it can be diluted.

The sensations of hunger and thirst, while they make such an impression upon the sensorium as to acquaint it with the requirements of the system at large, constitute only subjective evidence of starvation; or, in other words, they are to the inanitiated being the exponents of that devastation to which the molecular structure of his organization is subjected.

In the further investigation of this subject, we are indebted to the assiduity of Mons. CHOSSAT, whose love of science, and whose comprehensive mind stimulated him on through years of laborious research, in order that he might unravel the mysteries which encircle the process of starvation. The knowledge which has been added to this important subject, the benefits of which are evident as well to the physiologist as to the pathologist, is so important that the name of CHOSSAT will be honored and revered, wherever and whenever famine and its consequences are investigated, or even experienced. To follow in detail the results of his experiments would be a task which space will not permit me to enter upon: rather, in so imperfect an essay, must we be content with the more practical facts, very reluctantly leaving the remainder for the elucidation of some *would-be* disciple of ÆSCULAPIUS.

Passing, therefore, those phenomena which starvation in its different stages exhibit, I am induced to notice, in the first place, that there exists a marked similarity between the quantity of food required to support the being in a state of health, and the amount of loss which the system suffers per diem from the commencement of the starving process until the "spark of life" is extinguished: for, while it has been found by actual experiment, that the system, from the retrograde metamorphosis and absorption of its tissues, loses on an average one twenty-third of its weight per diem, it has been shown, in no less direct a manner, that to maintain the organism in the vigor and activity of health, it requires an amount of nutriment equal in weight to about one twenty-fourth of its weight per day. But CHOSSAT has ascertained, with his usual sagacity, the loss which each tissue and organ undergoes during starvation, and the result has shown that while the adipose materials are diminished 93 per cent. of their original weight, the blood 75 per cent., the muscular tissues 42 per cent., and the osseous system 16 per cent., the nerves are comparatively unaffected, their original weight being reduced only 1·9 per cent. The average loss of the whole body in forty-eight cases was 40 per cent. Hence, in the higher animals, it would appear that the organism is reduced two-fifths of its original weight before it succumbs to death from starvation, while, as will be seen above, the diminution in the weight is chiefly due to the destruction of adipose and muscular tissues and the blood.

There is, therefore, a close relation between the time of death and the consumption of all the heat-generating and tissue-nourishing materials; while, from the almost entire withdrawal of the fat, and from the influence which artificial diet exerts, we are forced to the conclusion that life becomes extinct at a time when the temperature of the body has been so far reduced as to be incompatible with

vital action. Death is hence occasioned, chemically speaking, by an absence of caloric. This influence of heat over life is most beautifully illustrated by the exposure of an animal, in which death seems impending from starvation, to the influence of artificial heat, when almost immediately there is observed a renewal of its life, and a restoration from a state of insensibility and want of muscular power to that of comparative activity, while, if this support be prolonged, and the starving process discontinued, a recovery to its previous condition is liable to take place.

The annals of history are not devoid of instances in which the blighting curse of starvation has spread far and wide through the human family. The Old World has been, at different periods, the theatre of its desolations; and in looking over our own beautiful America, around whose hearthstone a numerous and happy family has clustered, and provided with every blessing which fertility of soil can produce, there are yet observed, especially in our most populous cities, deprivations which arouse the sympathies of the most hardened heart. The sufferings and misery which have been scattered throughout different portions of the world, no pen can describe nor the imagination conceive. To fancy the most abject poverty—to conceive of sufferings which the "shady side of life" far too often affords—and, in fine, to reflect upon the occurrence of death from the gradual and slow attenuation of the "thread of life,"—is to form but a faint idea of the effects and results of starvation, as it manifests itself in the human being.

Having thus observed the most practical effects of the absence of nutriment upon the vegetable and animal kingdom, I will, in the elucidation of that portion of my theme which refers to the organization of man, narrate an instance of death from starvation, and, from thence, to follow its effects upon the different functions of the organism.

A son of Erin, whose frame had withstood the ravages

of three score years, had permitted a naturally set and headstrong disposition to become so intensified, on account of the loss of the sense of vision and pecuniary embarrassments, as to lay the foundation of a persistent mania. So troublesome and expensive a companion did he become in his humble family circle, that it was deemed advisable to give him the advantages which a neighboring Insane Asylum afforded, with the hope that the stringent and systematic regulations to which the inmates of that institution were subjected, might be productive of an amelioration in his mental derangement.

The arrival of such an one, from whose dim visage the rays of a fixed and pertinacious tenacity to purpose beamed forth, was regarded with but little pleasure by the officers of the Asylum. He, on the contrary, in order to inflict a just punishment upon his physical system for its submission to a removal to a situation in which he was compelled to bow before the will of his superiors, resolved, and invoked aid from his Maker, that, not unlike the famous St. Ignatius, of Jesuit notoriety, he should inflict such a *flagellation* upon himself that life would prove a willing sacrifice upon the altar of an uncontrolled obstinacy. At the end of the eighth day, not a single particle of food had been introduced into his system, for the support of those changes which are essential accompaniments of vital action. To continue in this course was to lead to death as an inevitable result; to arrest it appeared, in this instance, the imperative duty of the officers of the Asylum, in whose care his life was, to a certain extent, entrusted. Moral suasion, that bugbear which, more than any other method, is brought into requisition in the management of the present generation, under any and all circumstances, was as inefficacious in directing his mind to other channels as it would be futile in changing the current of the fleeting winds. The introduction of liquid aliment was therefore attempted.

through the medium of the stomach-tube; and the strength of his resolution can only be fully conceived when it is considered that during a period of eight weeks, or fifty-six days, this process was employed twice, and more frequently thrice, per day, while from the frequent application of the tube, the delicate mucous membrane, lining the mouth, pharynx, and œsophagus, must have undergone a material hypertrophy, in order to have enabled it to endure the frequent contact of the hard and unyielding instrument.

At the end of the fifty-sixth day, he was permitted to return to his family; but his presence became so intolerable that the authorities obtained his re-commitment to the Asylum. His return was the signal of the commencement of that trial which was to prove the strength of a maniac's resolution, on the one hand, and the efficacy of human ingenuity and management, on the other. An exhibition of the same obstinacy as was displayed in his previous sojourn at the Asylum, brought up the important question of duty, Should this maniac be permitted to terminate his own life by starvation, or should it be prolonged by actual force?

In one sense, the physician, in his dealings with human life, should employ every means in its power for its extension. The system is governed by such mysterious laws, which are so far beyond the comprehension of finite minds, that under the most extreme and hopeless circumstances the recuperative energies of the system may be enabled to overcome the diseased action, and health, both mental and physical, be restored. But, while admitting this principle to be theoretically correct, we can not forget that to every general rule in practice there exists an exception, in which expediency shall constitute the rule or guide by which our conduct is directed. To permit a monomaniac, for whose recovery to mental sanity there was not the least possible hope, to deprive himself, by his own obstinacy, of food,

until death supervenes, appears to be possessed of an indifference towards, and a low estimation of, human life, unworthy of the enlightened physician, when viewed superficially. But could it be regarded as a duty to inject *vitality* down the throat of this man from month to month, and from year to year? We are constrained to answer in the negative.

Every inducement was therefore held out to him in order that he might take unmolested that which his system demanded. Food of every variety, and prepared in a manner which would find favor with the most fastidious taste, was constantly kept beside him, but he ate it not, for the curse of an uncontrolled obstinacy perverted every faculty of his mental organization. The various demands for nutriment called aloud for their accustomed supply, but he heard them not, and they met no response in return. The absorbents, in order to sustain the continued action of life, were stimulated to the exercise of their functions, and hence the adipose and muscular tissues suffered a diminution in size, while, as a consequence, the countenance became pale and cadaverous, the eyes wild and glistening, and the cutaneous investment was shrunken, and brought in closer proximity with its osseous companion than it was wont to do. The muscular strength followed in the train of decline, the locomotion became unsteady, the voice weak, and an inability of exertion supplied the place of former activity and alacrity. From his body there emanated an odor of a peculiar and fœtid nature, and the skin was covered with a brownish, dirty-looking, and offensive secretion.

To support his system, the only nutritive materials which he would imbibe consisted of an half pint of a decoction of coffee, in which was included a liberal quantity of the saccharine and lacteal elements. Upon this limited diet, the arrival of the tenth week found our hero so far reduced

that confinement to bed was sought constantly, and during the eleventh week the disintegrating processes became so rapid that a colliquative diarrhœa succeeded an obstinate constipation, which had continued up to this time, while delirium and stupor followed, which were produced (according to LIEBIG) by the exudation of the particles of the brain; and the seventy-seventh day from his re-commitment to the Asylum witnessed the final struggle in which his spirit returned to the GOD who gave it.

An autopsical examination revealed an almost entire absence of adipose tissue, a diminution in the size and weight of the muscular tissues and of the viscera, and an almost entire bloodlessness in all parts of the body, the brain alone excepted, which obtains a liberal supply.

The extreme extension of the life of this maniac upon the small quantity of nutriment contained in one cupfu of coffee, may, in part, be attributed to the influence which the mental exerts over the physical organism. The concentration of every faculty of his mind upon the means which he was employing to accomplish a given end, was so intense that the sensorium became entirely indifferent to the condition of its earthy tenement. The sensations of hunger and thirt, though acting with a zeal commensurate with their ability, became blunted, from the inattention paid to them, and hence no impression was made. The mind entertained only a selfish sympathy, and, as a consequence, the instrument through which its manifestations were made, languished, and finally became unfit for the maintenance of vital action. The temperature of the surrounding atmosphere, for it occurred during the months of June, July, and August, enabled the system to maintain its heat without making large exactions upon the adipose materials which were taken; and the ingestion of coffee, an agent admirably adapted to the requirements of the case, as much from its retardation of the metamorphosis of the

tissues, as from the nutritive properties contained within itself, constituted valuable adjuvants in the prolongation of life.

The process of inanition exerts a marked influence over secretion and excretion. The tendency to putrescence, observed in the fœtid emanations from the body, in the obnoxious secretion which exudes from the skin, and in the rapidity with which putrefaction takes place after death, can be attributed to no other cause than the retention of excrementitious substances in the blood; and this is farther corroborated by the fact that pestilential diseases often follow in the wake of a famine, and carry off more than die from starvation itself.

The inactivity of the respiratory processes is a phenomenon constantly observable in the lower animals as well as in man, and experiments have afforded unmistakable evidence that the quantity of carbonic acid exhaled, and of oxygen absorbed, as well as the volume of the aqueous vapor, undergo an appreciable diminution. So great an influence is exerted over these functions, that the omission of a single meal decreases exhalation and absorption from the lungs.

The renal excretion is lessened both in its fluid and solid constituents. SCHERER, a German experimenter, whose attention has been engaged in this subject, ascertained that the fluid element (*i. e.* water) was reduced to 38 per cent. of the healthy standard, the urea to 43·5 per cent., the salts to 20 per cent., and the extractive matter to 57 per cent. The imbibition of water at any period of starvation, not only increases the fluid constituents of the urine, but even produces an augmentation of its solids.

The liver, influenced by the same conditions which diminish the activity of other organs, fails to secrete its accustomed quota of bile; and the same may be affirmed in regard to the pancreas, salivary apparatus, and the numerous intestinal glandulæ which aid in the process of digestion.

From this want of secretion there ensues an inactivity of the digestive functions, which render them incapable of the solution and assimilation of the small amount of food which may be taken, and at the same time an obstinate constipation, which continues until near the close of life, when, as is the case with many prolonged diseases, the fatal termination of which is due to chronic inanition, a colliquative diarrhœa succeeds, which may be considered as a manifestation of the general disintegration which is progressing even during life.

A deficient quantity of food has already been mentioned as a cause of starvation. The presence of concurrent conditions, such as undue exertion, defective ventilation, and a depressed temperature, will, under these circumstances, hasten the unhappy issue. In the management of some of the large prisons and work-houses of England, numerous instances have occurred to substantiate this fact: and, in view of this experience, the conscientious practitioner of medicine should always exercise a due amount of caution, that, when he has the supervision of any large institution in which hundreds of human beings are collected, to afford to those thus placed under his care a quantity of aliment which shall be adequate to the wants of their systems.

The time which is required to produce death from starvation, is modified by the quantity of adipose tissue in the system at the commencement of the process, the amount of waste, the temperature of the surrounding atmosphere, the presence or absence of water, and upon the ingestion of a small quantity of food. The condition of the atmosphere, as regards humidity, will influence the result. In the absence of all favorable circumstances, Dr. CARPENTER places eight or ten days as the usual length of time between the commencement and the fatal terminus of the starving process. A case is on record in which a young man, under the influence of religious delusions, subsisted sixty days upon no other nutriment than a little orange

juice. The case which occupies so large a portion of my essay, in which life was extended to seventy-seven days on one half pint of coffee per day, compares favorably with the above. The last case which is recorded is that of a *fat porker*, weighing 160 lb., which, after being buried thirty feet beneath a chalk bed for one hundred and sixty days, was exhumed in the full possession of his musical proclivities, minus 120 lb. of fat, only 40 lb. of his original carcass remaining.

Inanition often constitutes an important element in long-continued diseased action. That the want of a pure philosophical knowledge of pathology, and an empiricism in therapeutics, has been at the foundation of its production, is a fact which modern research plainly exhibits. It stands to the symptoms which are present in many disordered conditions of the system rather in the relation of a cause than an effect. The system of too rigid abstinence, in the treatment of diseases, has been one of the most fatal errors which has befogged the minds of the Profession in the past. "An altered condition or proportion of the vital functions and structures," or, in other words, disease, does not overcome or counteract those fundamental laws upon which the system is governed in a state of health: the same demand for nutriment pervades the organism, in the one case as in the other. They suffer, it must be admitted, a change, modification, or perversion; but the idea which is prevalent, even at the present day, that the system can perform its various duties, unsupported and unnourished, would appear to partake as much of the irrational as to entertain a like opinion in regard to a state of health. The Profession, as a mass, have too long abhorred this important fact. Physic has been regarded as a god, upon whom all their adoration must be bestowed, while hygiene is looked down upon as a by-word, a mere mockery — aye, and almost a demon.

That there are many diseases in the nosology, the treatment of which require only a proper regulation of the ingesta in order that inanition may be either directly or indirectly exerted, becomes more apparent as time passes on. Many diseases hold forth no beckoning hand for drugs; the fluids of the system, already contaminated with a *materies morbi*, obtain only a renewed perversion by the introduction of medicine. Nor can we fail to notice the tendency to exhaustion and debility which characterizes many diseases. The adynamic fevers, various epidemics, the process of suppuration, and various other morbid states demand the watchful care of the practitioner, in order that inanition may be avoided; and that one is the most successful, and manifests a more intimate knowledge of pathology, whose attention is more directed to the prevention of a low condition of the system, bordering on inanition, than the one whose "*armamentarium medicum*" is found exclusively in his saddle-bags;—in fact, the frequency of inanition in the course of many diseases, and the frequent applicability of the supporting and nutritive measures for its prevention, meet the physician on every hand; and if the horizon of the medical world appears radiant with hope and splendor to the enlightened mind, it is from the fact that the "signs of the times" give renewed indications that the rapid diffusion of hygienic knowledge is fast supplanting the empiricism and conservatism which has characterized the Medical Profession up to the present century.

In conclusion, therefore, the facts which the attentive study of inanition brings forth must exert a material influence over both pathology and therapeutics. The constant tendency which the Profession manifest towards its appreciation as an element of diseased action, is but the precurser of more important revelations, which will bring inanition, so imperfectly treated in this essay, among the more general indications in therapeutics.

ART. XXIV.—Fractures of the Olecranon Process.

By Frank H. Hamilton, M. D.
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Causes.—So far as I have been able to ascertain, all of the fractures of this process which I have seen were occasioned by falls upon the elbow, or by blows inflicted directly upon the part; Malgaigne has, however, been able to collect accounts of six examples of fracture of the olecranon, produced, as is affirmed, by the violent action of the triceps; as in pushing with the arm slightly flexed, in throwing a ball, in plunging into the water with the arms extended, etc.; but only four of these reported examples does he think are sufficiently authenticated to entitle them to be received as facts: nor do I think it possible to affirm positively that in any instance, where the whole process is broken off, the triceps alone has occasioned the separation. For example, Capiomont reports the case of a cavalier, who, being intoxicated, was thrown head foremost from his horse, and striking probably upon his hand, was found to have broken the olecranon process. We do not, in this example, see evidence alone of a forcible contraction of the triceps, but also of violent pressure against the hand and in the direction of the axis of the forearm towards the elbow joint, by which the olecranon process might have been so thrown forwards against the fossa of the humerus as to cause its separation. The same explanation might apply to several of the other examples.

Point and direction of fracture; displacement, etc.—The process may be broken at its summit, at its base, or intermediate between these two extremes, the latter of which is the most common.

It is probable that when the action of the triceps alone has produced the fracture, it will be found that only the

summit, or that portion which receives the insertion of the triceps, has been broken off. MALGAIGNE, who has been able to find upon record only two cases of a fracture of the extreme end of the process, declares that they were both occasioned by muscular action.

Fractures of the middle are generally transverse, or only slightly oblique, occurring in the line of the junction of the epiphysis with the diaphysis. We think, also, we have reasons for believing that these only occur as a consequence of a fall upon the elbow, or of a blow upon the extreme point of the elbow, when the forearm is considerably flexed upon the arm; the direction of the obliquity, when any is found to exist, being generally from above downwards and from behind forwards, indicating that the direction of the force was also from behind.

Fractures through the base are generally quite oblique, the line of fracture extending from before downwards and backwards, so that not only the whole of the process, but a portion of the back of the shaft, is carried away; and this accident can scarcely happen, except by a blow received upon the lower end of the humerus, directly in front of the process; or, what would amount to the same thing, by a blow from behind, and received upon the ulna just below the olecranon process, or by wrenching the forearm violently back, while the humerus is fixed.

The only displacement to which the upper fragment seems to be liable, is in the direction of the triceps; and the degree of this displacement does not depend so much upon the point at which the fracture has taken place as upon the violence which has occasioned it, the extent of the disruption of the ligaments, aponeurosis of the triceps and of the capsule, and upon whether, since the accident, the arm has been flexed or kept extended.

In two instances, I have found distinct crepitus immediately after the fracture had taken place, produced by only

moving the fragment laterally, showing plainly that little or no displacement had taken place. The following example will show also that this displacement does not always take place after the lapse of several days, and where no surgical treatment has been adopted:

Samuel Duckett, æt. 14, fell upon the point of the elbow, and two days after was admitted to the Buffalo Hospital of the Sisters of Charity. The elbow was then much swollen, but no crepitus could be detected, and he could nearly straighten his arm, by the action of the triceps. On the sixth day, the swelling having sufficiently subsided, a distinct crepitus was discovered when the olecranon process was seized between the fingers, and moved laterally. We extended the arm immediately, and applied a long gutta percha splint to the whole front of the arm and forearm, securing it in place with a roller. On the eleventh day, five days after the first dressing, the splint was taken off, and its angle at the elbow joint slightly changed; and this was repeated every day until the twenty-second day from the time of the accident. The splint was then finally removed, when the fragment was found to be united without any perceptible displacement, and the motions of the joint were unimpaired.

It must not be inferred, however, that it is always prudent to leave this fracture thus unsupported, since it has occasionally happened that the displacement, which did not exist at first, has taken place to the extent of half an inch or more, after the lapse of several days. Mr. Earle mentions a case in which the separation did not take place until the sixth day, when it was occasioned by the patient's attempting to tie his neck-cloth.

Symptoms.— The usual signs of a fracture of the olecranon process, are, when the fragments are not separated, crepitus, discovered especially by seizing the process, and moving it laterally; or, when displacement has actually

taken place, the crepitus may be discovered sometimes by extending the forearm, and pressing the fragment downwards until it is made to touch the lower fragment; the existence of a palpable depression between the fragments, partial flexion of the forearm, and total inability, on the part of the patient, to straighten it completely, or even to flex the arm in some cases. If the fragments do not separate, gentle flexion and extension of the arm, while the finger rests upon the process, may enable us to detect the fracture.

It will sometimes happen that, owing to the rapid occurrence of tumefaction, the evidences of a fracture will be quite equivocal; but, in all cases where a severe injury has been inflicted upon the point of the elbow, it will be well to suspend judgment until, by repeated examinations, made on successive days, the question is determined. Meanwhile, the arm ought to be kept constantly in an extended position, as if a fracture was known to exist.

Prognosis.—In a large majority of cases, this process becomes re-united to the shaft by ligament, which may vary in length from a line to an inch or more, and which is more or less perfect in different cases. Sometimes it is composed of two separate bands, with an intermediate space, or the ligament may have several holes in it; at other times it is composed in part of bone and in part of fibrous tissue; but most frequently it is a single, firm, fibrous chord, whose breadth and thickness are less than that of the process to which it is attached.

If the fragments are maintained in perfect opposition, a bony union is likely to occur, yet it is not invariably found to have taken place, even under these circumstances. MALGAIGNE thinks, also, he has seen one case in which there was neither bone nor fibrous tissue deposited between the fragments. This was an ancient fracture at the base of the olecranon; the superior fragment remained immovable

during the flexion and extension of the arm, yet it could be moved easily from side to side.

In my own cases, I have three times found the fragments united without any appreciable separation, and have presumed that the union was bony. One of these examples I have already mentioned; the second, was in the person of a lady aged about forty years, who, having fallen down a flight of steps on the 8th of September, 1857, sent for me immediately. I found a large bloody tumor covering the elbow joint, but there was no difficulty in detecting a fracture of the olecranon process. It was easily moved from side to side, and this motion was accompanied with a distinct crepitus. During the first week, the arm was only laid upon a pillow, but as it was found to become gradually more flexed, and the swelling having in a great measure subsided, the arm was nearly, but not quite, straightened, and a long gutta percha splint applied to the palmar surface of the forearm and arm. The fragments united in about twenty or twenty-five days, and without separation, so far as could be discovered in a very careful examination.

The third example to which I have referred, occurred in a boy fourteen years old, and was treated by Dr. Benjamin Smith, of Berkshire, Massachusetts. Sixty-nine years after, when this lad had lived to be eighty-three years old, I found the olecranon process united apparently by bone, but to this day he was unable to straighten the arm completely, or to supine it freely.

In one instance I have found the bone, after the lapse of one year, united by a ligament, which seemed to be about one quarter of an inch in length, and the arm appeared to be in all respects as perfect as the other. He could flex and extend it freely.

In the two following examples, also, the bond of union was ligamentous:

John Carbony, æt. 18, having broken the olecranon, it

was treated with a straight splint. Nine years after, I found the process united by a ligament half an inch in length, and he could nearly, but not entirely, straighten the arm. In all other respects the functions and motions of the arm were perfect.

A lad, æt. 15, was brought to me by Dr. LAUDERDALE, a very excellent surgeon in the town of Geneseo, Livingston Co., N. Y., whose olecranon process had been broken by a fall six months before, and at the same time the head of the radius had been dislocated forward. I found the radius in place, and the olecranon process united by a ligament about half an inch in length. He was not able to straighten the arm completely, the forearm remaining at an angle of 45° with the arm.

Treatment.—It will surprise the student who is yet unacquainted with the literature of our science, to learn that in relation to the treatment of a fracture of the olecranon process, a wide difference of opinion has been entertained as to what ought to be the position of the arm and the forearm, in order to the accomplishment of the most favorable results; and that, while some insist upon the straight position as essential to success, others prefer a slightly flexed position, and still others have advocated the right-angled position. Thus, HIPPOCRATES, and nearly all of the earlier surgeons, down to a period so late as the latter part of the last century, directed that the arm should be placed in a position of demi-flexion; BOYER, DESAULT, and, after them, most of the French surgeons of our own day, prefer a position in which the forearm is very slightly bent upon the arm; while Sir ASTLEY COOPER, and a large majority of the English and American surgeons, employ complete or extreme extension.

The arguments presented by the advocates and antagonists of these various plans deserve a moment's consideration.

In favor of the position of demi-flexion, requiring no splints, and, in the opinion of some writers, not even a bandage, but only a sling to support the forearm, it is claimed that it leaves the patient at liberty at once to walk about and to move the elbow joint freely, so soon at least as the subsidence of the swelling and pain will permit, and that in this way the danger of anchylosis is greatly diminished; that, moreover, if anchylosis should unfortunately occur, the limb is in a much better position for the proper performance of its most ordinary functions than if it were extended. Some have also added to this argument a statement that a fibrous union, under any circumstances, is inevitable, and that it is a matter of little consequence whether the ligament thus formed is long or short, since in either condition it will be equally serviceable.

In reply to these statements, it may be said briefly, that they are nearly all based upon false premises, or that they have been proven themselves to be essentially erroneous.

Anchylosis is always a serious event, which by all possible means the surgeon will seek to prevent, but position has nothing to do with determining this result: when it does occur it may usually be ascribed either to the severity and complications of the original injury, to the violence of the consequent inflammation, or to having neglected, at a proper period, and with sufficient perseverance, to move the joint.

That a fibrous union is inevitable under any circumstances, has been fully proven to be an error; and it has been equally proven that the functions of the arm are generally impaired in proportion to the length of the uniting medium.

The only argument which remains, and which really possesses any weight, is, that, if permanent anchylosis does actually occur, the arm, when demi-flexed, is in a better position for the performance of its ordinary functions; and

this, considered as an argument in favor of the universal or even general adoption of the flexed position, is successfully met by a statement of the infrequency of permanent anchylosis after a simple fracture, when the case has been properly treated, whether by the flexed or straight position; while, if the limb is flexed, a maiming, as a result of the great length of the intermediate ligament, is almost inevitable.

Yet if, in any case, from the great severity and complications of injury, especially in certain examples of compound and comminuted fracture, it were to be reasonably anticipated that permanent bony anchylosis must result, or even where the probabilities were strongly that way, the surgeon might be justified in selecting for the limb, at once, the position of demi-flexion; or he might leave the arm without a splint, and at liberty to draw up spontaneously and gradually to this position, as it is always very prone to do.

In favor of moderate, but not complete extension, it is claimed that it is less fatiguing than the latter position, while it accomplishes a more exact opposition of the fragments, if they happen to be brought actually into contact.

I am unable, however, to understand how the opposition can be rendered less exact by complete extension, unless by this is meant a degree of extension beyond that which is natural, and which, I am well aware, is permitted to the elbow joint when this posterior brace is broken off. It would certainly derange the fragments to place the arm in this extreme condition of unnatural extension; indeed, perhaps we may admit that, in order to perfect opposition, the extension ought to be less by one or two degrees than what is natural, sufficient to compensate for the trifling amount of effusion which may be presumed to have occurred in the olecranon fossa, and which would prevent the process from sinking again fairly into its fossa.

As to its being less fatiguing, it is well known to those accustomed to treat fractures of the thigh by permanent extension that the muscles rapidly acquire a tolerance, which soon dissipates all feeling of fatigue, and that, after a few hours, or days at most, the patients express themselves as being more comfortable in this position than in the flexed.

Finally, the advocates of complete extension claim that, in this position alone, is the triceps most perfectly relaxed, and consequently the most important indication, namely, the descent of the olecranon, most fully accomplished. In this opinion we also concur; and regarding all other considerations, in the early days of the treatment, as secondary to this one, we unhesitatingly declare our preference for what has been called the "position of complete extension."

It only remains for us to determine by what means the limb can be best maintained in the extended position, and the olecranon process most easily and effectually secured in place.

For this purpose a variety of ingenious plans have been devised; such as the compress and "figure of 8" bandage of DUVERNEY, without splints; or a similar bandage employed by DESAULT, with the addition of a long splint in front; the circular and transverse bandages of Sir ASTLEY COOPER, with lateral tapes to draw them together, to which also a splint was added; and many other modes not varying essentially from those already described, but nearly all of which are liable to one serious objection, namely, that if they are applied with sufficient firmness to hold upon the fragment, and BOYER says they "ought to be drawn very tight," they ligate the limb so completely as to interrupt its circulation, and expose the limb greatly to the hazards of swelling, ulceration, and even gangrene. How else is it possible to make the bandage effective upon a small fragment of bone, scarcely larger than the tendon

which envelopes its upper end, and with no salient points against which the compress or the roller can make advantageous pressure? If, then, these accidents, swelling, ulceration, and gangrene, are not of frequent occurrence, it is only because the bandage has not been generally applied "very tight," and while it has done no harm, it has as plainly done no good.

The dangers to which I allude may be easily avoided, without relaxing the security afforded by the compress and bandage, by a method which is very simple, and the value of which I have already sufficiently determined by my own practice.

The surgeon will prepare, extemporaneously always, for no single pattern will fit two arms, a splint, from a long and sound wooden shingle, or from any piece of thin, light board. This must be long enough to reach from near the wrist joint to within three or four inches of the shoulder, and of a width equal to the widest part of the limb. Its width must be uniform throughout, except that, at a point corresponding to a point three inches, or thereabouts, below the top of the olecranon process, there shall be a notch on each side, or a slight narrowing of the splint. One surface of the splint is now to be thickly and carefully padded with hair or cotton-batting, so as to fit to all of the inequalities of the arm, forearm, and elbow, and the whole covered neatly with a piece of cotton cloth, stitched together upon the back of the splint. Thus prepared, it is to be laid upon the palmar surface of the limb, and a roller is to be applied, commencing at the hand and covering the splint, by successive circular turns, until the notch is reached, from which point the roller is to pass upwards and backwards behind the olecranon process and down again to the same point on the opposite side of the splint; after making a second oblique turn above the olecranon, to render it more secure, the roller may begin gra-

dually to descend, each turn being less oblique, and passing through the same notch, until the whole of the back of the elbow joint is covered. This completes the adjustment of the fragments, and it only remains to carry the roller again upwards, by circular turns, until the whole arm is covered as high as the top of the splint.

The advantage of this mode of dressing must be apparent. It leaves, on each side of the splint, a space upon which neither the splint nor bandage can make pressure, and the circulation of the limb is, therefore, unembarrassed, while it is equally effective in retaining the olecranon in place, and much less liable to become disarranged.

Before the bandage is applied about the elbow joint, the olecranon must be drawn down, as well as it can be, by pressure with the fingers, and a compress of folded linen, wetted to prevent its sliding, must be placed partly above and partly upon the process; at the same time, also, care must be taken that the skin is not folded in between the fragments.

This dressing ought, no doubt, to be applied immediately, since, if we wait, as BOYER seems to advise, until the swelling has subsided, it will be found much more difficult to straighten the arm completely than it would have been at first, and the olecranon process will be more drawn up and fixed in its abnormal position. Something will be gained by these means, adopted early, even if the bandage can not be applied tightly, and moderate bandaging will not in any way interfere with the proper and successful treatment of the inflammation. We must always keep in mind, however, the fact that the fracture being usually the result of a direct blow, considerable inflammation and swelling about the joint are likely to follow rapidly; and on each successive day, or oftener if necessary, the bandages must be examined carefully, and promptly loosened whenever it seems to be necessary. For this purpose it is better

not to unroll the bandages, but to cut them with a pair of scissors, along the face of the splint, cutting only a small portion at a time, and, as they draw back, stitch them together again lightly; and thus proceed until the whole has been rendered sufficiently loose.

As soon as the inflammation has sufficiently subsided, and as early sometimes as the fifth or seventh day, the dressings ought to be removed completely; and while the fingers of the surgeon, resting upon a compress, sustain the process, the elbow ought to be gently and slightly flexed and extended two or three times. From this time forward, until the union is consummated, this practice should be continued daily, only increasing the flexion each time, as the inflammation and pain may permit. If it is thought best, at length, to change the angle of the arm, and to flex it more and more, it may be done easily by substituting a very thick sheet of gutta percha for the board.

DIEFFENBACH has several times, in old fractures of both the olecranon and patella, where the fragments were dragged far apart, divided the tendons, so as to be able to bring the two portions together, and, by friction of them one upon the other, has endeavored to excite such action as might end in the formation of a shorter and a firmer bond of union. In some instances, it is said, considerable benefit was obtained, after all other means had failed; in others, the result was negative. One example of an old ununited fracture of the olecranon is mentioned, in which he divided the tendon of the triceps, secured the upper fragment in place, and every fourteen days rubbed it well against the lower one; in three months "the union was firm."*

The practice, not without its hazards, needs further observations to determine its value.

* Dieffenbach, American Journal of Medical Science, vol. 29, p. 497; from Casper's Wochenschrift, Oct. 2d, 1841.

ART. XXV.—Remarks upon Fluid Extracts.

By Frederick Stearns, Pharmaceutist.

The class of preparations termed Fluid Extracts were first recognized in the U. S. Pharmacopœia, as revised in 1850, although some members of it were employed in certain portions of the country for years previous.

Since their officinal recognition, and consequently the increase of knowledge concerning them, the superiority and obvious convenience of the few which were made officinal over those Extracts of the same materials in solid form, for nearly all purposes of dispensing and administration, has necessarially created a demand for similar products from members of the materia medica, not represented in the class of Fluid Extracts, but which it was evident could be most conveniently and usefully exhibited in that form.

This demand has been met by the enterprize of individuals devoting themselves particularly to the manufacture of pharmaceutical products, who, in the absence of published and recognised formulæ, or processes, have filled the market with a variety of Fluid Extracts, made after modes of their own devising, which, though not held strictly secret, have not usually been published. The two houses most largely engaged in the business of manufacturing Fluid Extracts, are believed to be managed by *honest* and scientific men, who strive to accomplish, in their productions, perfection, as applied to this class of remedies. The fact, however, that each maker follows modes of manufacture which he deems most proper and best calculated to insure good qualifications in his own products, without reference to the establishment of a general and uniform code which might be a guide to all, leads necessarily to much confusion, and throws around the extended manufacture of them an idea or air of empiricism which is not calculated to

enhance the reputation of these preparations as a class. Moreover, manufacturers, in their haste to furnish Fluid Extracts from all and every one of the members of the materia medica, officinal and non-officinal, have, without doubt, adopted modes for making many of them which an accurate knowledge of the chemistry of the plants, and experience—gained only by careful investigation, and an outlay of much time and study—would show to be valueless. We are confirmed in this belief by experiment, and concur, to a certain extent, with the verdict pronounced recently by the New York Academy of Medicine against Fluid Extracts. The Committee, appointed by that Body, report that, after an examination, therapeutical and analytical, they found the series of specimens of Fluid Extracts submitted to them, to be deficient in medicinal power, of uncertain strength, many inert and worthless, and finally close by condemning the whole class of Fluid Extracts.

It must be expected, where no large series of processes for making Fluid Extracts exist, of recognised and established merit, such as have been elaborated by careful study, and submitted through the pages of our Medical and Pharmaceutical Literature, to be confirmed in excellence by test in the hands of the Pharmaceutists of the country, that those which are the guides for certain individuals, and perhaps they not over scrupulous in the quality of the products they offer in market, will often mislead the practitioner, and incline him to condemn the whole class of Fluid Extracts, from whatever source they may emanate. Yet when we consider the general popularity of these Extracts, and the evident manifold advantages attending the use of very many remedies in a concentrated fluid form (for which, no matter what the menstruum or preservative agent may be, the term *Fluid Extract* seems most apt), we think the *fiat* of the New York Academy of Medicine will do but little towards consigning them to obscurity or disuse, and

we suggest, with all due difference to those gentlemen, who would confine us to the employment of definite and isolated organic principles of plants, that, in place of condemning Fluid Extracts as a class, efforts should be made to detect the errors in processes now existing and employed, and that endeavors should be directed, by all interested in this interesting and important branch of pharmaceutical investigation, towards means for elaborating and perfecting new processes for them; and also that those gentlemen who have made the manufacture of Fluid Extracts a special business, be invited to co-operate with us in establishing a series of methods at once uniform and practicable.

The seeming necessity for improvements in this branch of Pharmacy, now that the decennial period for revising our national code is approaching, and the evident favor with which this form of medicament is looked upon by the Medical Profession, has led the writer to make the above remarks, and to offer the following suggestions.

It is a fact, we believe, generally understood, that the use of isolated definite principles of plants, in treatment of disease, does not always effect the desired object, or properly or satisfactorily substitute the employment, in the crude form, of the plants themselves, notwithstanding that in the latter form their medicinal action is, to no small extent, modified and lessened by the bulk of inert, worthless matter necessarily given with active matter, when used in such form. This, it is presumed, is due to the fact that proximate, definite, or active principles, when isolated, do not exist in the same conditions, precisely, as they do in the plants themselves, and that the activity of a plant may be due to two or more distinct principles, which, when in their natural conditions, control and modify each other to a certain extent, and, when exhibited separately and isolated, fail to produce effects similar to those of the crude material from which they were obtained.

Peruvian Bark is an example of this. We presume the experience of most practitioners will confirm the assertion, that, very often, better results are obtained from the use of good bark than from that of its alkaloids and their salts, either separate or combined. Here, then, exists a necessity for pharmaceutical, rather than chemical, preparations, wherein to exhibit the active matters of vegetable remedies in a convenient form, *and in the same condition and states of combination* in which they exist in the crude material.

Farther, we think it may be safely assumed that *Infusions*, as pharmaceutical preparations, are inconvenient, uncertain, not permanent, and unscientific. As remedies, they are too bulky for general employment, or for the administration of an adequate dose of a remedy in a reasonable bulk.

Decoctions are subject to the same objections. The process of decoction has the additional disadvantage of exposing to long-continued heat substances so readily decomposed by a high degree of temperature as are organic matters.

And that *Tinctures*, as a class, are open to the serious objection of being dilute solutions of medicinal matters in a menstruum which, in its powerful effects upon the economy, tends greatly to modify in some, and counteract in others, the effects of the remedy so prepared; therefore, tinctures must certainly be of little value in those cases where the remedial effect of the matter held in solution is not enhanced by the stimulating action of the menstruum upon the system.

Other classes of preparations are open to similar objections.

Now, it is becoming to ask, Whether there is any form in which we may exhibit the power of a plant or drug, which is not liable to the above objections? We reply, That a *perfect* Fluid Extract is what is needed—a concen-

trated solution, of the *activity* of a remedy, from which, at pleasure, even the ordinary form of preparations, infusions, tinctures, syrups, etc., may be made with ease.

Viewing the possession of a series of processes for *perfect* Fluid Extract a great desideratum, the writer proposes to state what are the points to be regarded as necessary in order to produce that perfection in those processes which we desire.

A Fluid Extract should be a *nearly saturated solution of the whole active matter*, in such menstruum as a careful study of the material employed indicates as best calculated to extract and preserve it (provided always, when the extraction of certain active matters require the use of menstruæ which, if retained in the preparation when finished, would prove injurious to it as a medicine, that such be replaced by one of equivalent power as a solvent and preservative in the finished Extract).

In alcohol, diluted alcohol, water, ether, sugar, and glycerine, we doubtless possess nearly all that is required for the purposes of extracting and of preserving in fluid form the active portions of plants.

By "*nearly saturated*" is meant that a small but *definite* percentage of excess of menstruum should exist in each completed Extract when at ordinary temperature, in order to prevent any deposition or precipitation of soluble matter during exposure to cold, to which these preparations would more or less be unavoidably liable, when thrown into market; whereas, if Fluid Extracts were fully saturated solutions, they would be rendered uncertain, from the very fact of the changes which would occur in them by variations in the temperature of the atmosphere surrounding them.

By a solution of the *active matters* is meant that these only should be held in solution in a Fluid Extract, to the exclusion of the inert yet soluble portions of plants, such

as starch, albumen, gum, etc., the presence of which weakens the solvent power of the menstruum, and disposes the finished preparation to decomposition.

It follows, necessarily, that, if nearly saturated solutions of the active matters of plants are aimed at, an arbitrary standard, by which a certain weight of crude material is made to represent a definite bulk of Extract, is not practicable; for it is well known the influence of position, climate, and soil upon the growth and properties of plants, causes them to vary greatly in activity, in different seasons and in different countries. This shows, also, that the apparent uniformity which is assumed when such a standard is adopted, does not exist, and that it is a fallacy.

It will be necessary to ascertain, by carefully conducted analysis of each material proposed to be employed in making Fluid Extracts, the average percentage of active matter it contains, and take this percentage as a guide in preparing them.

It is believed, in regard to the mechanical appliances necessary to insure the completion of Fluid Extracts without injury by exposure to heat or the influences of the atmosphere, that the modern improvements, in the introduction of the vacuum pan, and improved methods of percolation or displacement, are all that could be wished—the only difficulty being, that the expense attending the construction and employment of the vacuum apparatus will tend to confine its use mainly to the large manufacturers, and deprive the dispenser or pharmaceutist of limited business of the ability to compete with such, either in the quality or price of his products.

Cane sugar or glycerine, on account of their bland and nutritious qualities, should be employed, when practicable, as preservatives and solvents, in place of more exciting or stimulating menstruæ; the subsidary advantage of their power in disguising nauseous medicines, and thus

rendering them somewhat palatable, is of no inconsiderable value.

Fluid Extracts, prepared with due regard to the above points, would, the writer believes, possess, in an eminent degree,

CONCENTRATION,
CONVENIENCE,
PERMANENCE, and
AGREEABILITY.

These qualities may not be the attributes of perfection, but it seems as if they were near it, and it may not be possible ever to construct a list of processes in which all the above noted points can have due allowance, but, judging from many results already obtained by earnest investigators in this branch of inquiry, it is believed that considerable progress has already been made towards the desired end.

In closing, without offering any processes in place of those modes which these remarks may seem to condemn, the writer can apologize only by saying that it is better to trust, perhaps, to the honesty of our few best Fluid Extract Manufacturers, and to use those of their production, of ascertained practical value, until the time arrive when we shall possess the series of formulæ we need.

Over seventy members of our list of the recognized materia medica, would be most eligible for exhibition in the form of Fluid Extracts, various combinations of two or more of them in one would increase this number to an hundred. Here, then, is a field for the pharmaceutical student, one full of interest, and wherein his labors may result in lasting benefit to his chosen art.

ART. XXVI. — Detroit Observatory of the University of Michigan.

BY F. BRUNNOW, PH. DR.

[WE cheerfully give place to the following communication from the Director of the above Observatory, because, though not Medical, it is Scientific, and we hope all our readers will be interested to learn that Michigan, through its noble Institution, is doing its part of labor in the great field of Science. We the more readily yield the space to this article, as there is no Journal published in the State devoted to Astronomy, or kindred subjects; and we presume a large proportion of those interested in such matters consist of medical men, and are among our readers. — EDS. PEN. AND IND.]

The large telescope of the Observatory at Ann Arbor has been mounted since last December, and is an instrument far superior to the one which was in temporary use before, and which was not accepted as a fulfilment of the contract, on account of its deficiencies. The new telescope has a clear aperture of twelve and three-eighths inches, and the optical part does great honor to its maker, Mr. FITZ, of New York. The mounting is a little inferior to that of Munich instruments, but it answers now all purposes, and is indeed all one might expect, considering the low price of the instrument, which is only one-half of what Munich instruments of the same size cost. This telescope and the noble meridian circle make our Observatory one of the very first rank, and the regular observations made with them have already established its reputation.

At the last meeting but one of the Board of Regents, Mr. JAMES C. WATSON, a very talented young man, and a graduate of this Institution, was appointed Assistant of the Observatory, as, by his former employment at the Observatory, he had shown himself a zealous and skillful observer and an exact computer.

The Observatory is engaged in observations of asteroids and comets. The annually increasing number of newly discovered planets has made a division of labor among the

different Observatories necessary, and as most of the main Observatories have pledged themselves to observe regularly a certain number of these asteroids, the Detroit Observatory of the University of Michigan has undertaken the observations of eight of them, namely, Astrea, Flora, Hebe, Victoria, Metis, Calliope, Euphrosyne, and Proserpina. It is also the intention to advance, as much as possible, the theory of these planets; and Tables of Flora and Victoria have been already finished, by which their place for many years to come may be calculated. Besides those eight planets mentioned above, the newly discovered asteroids will be observed also, and such of the older ones as are either too faint for smaller instruments, or not in a favorable position for European Observatories; as for instance, Atalanta, in the last apposition; which very probably was observed nowhere except at this place. A similar important service was lately done to science by the observations of the last comet, discovered by Mr. TUTTLE, of the Cambridge Observatory, which, on account of its exceeding faintness, was seen with difficulty even with the large refractor of Cambridge. As soon as the news of the discovery were communicated by Prof. BOND, the comet was found here, and observed on five different days, and these observations and those made at Cambridge are the only observations anywhere made, and are therefore of the greatest importance for the computation of the comet's orbit. The Observatory is assisting, also, in corresponding observations made at different stations, for the determination of the longitude of different places in the north-western Territories.

But the main object for which the instruments of the Observatory will be used, for some years to come, will be the observations of the southern double stars, between the tenth and the thirty-fifth degree of declination. While the northern double stars have been observed by the celebrated

Astronomer of Pulkova, W. STRUVE, who has devoted the greater part of his life to this important work, the southern double stars have been hitherto neglected. Sir JOHN HERSCHEL had discovered a great number of them, during his stay at the Cape of Good Hope, but only very few of them have been measured; and the observations at Ann Arbor, will fill, therefore, as far as possible for this horizon, a great void in our knowledge of the starry heavens. This series of observations will be commenced as soon as the accuracy of the micrometrical apparatus for this kind of observations has been sufficiently tested, and the irregularities of the screw have been determined by the observations of artificial double stars.

The latitude of the Observatory has been determined with the meridian circle, by a series of observations of the zenith distances of Polaris, direct and reflected, in both culminations, and has been found to be $42° 16' 48''.7$.

The longitude of the Observatory, as has been found by an occultation of the Pleiades by the moon, is $26^{m}.42^{s}$ W. from Washington.

ANN ARBOR, July 1st, 1858.

ART. XXVII.—Meteorological Register for the Month of June, 1858.

By L. S. Horton, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer.			Hygrometer.			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Clouds.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	BEGAN.	ENDED.	INCHES.
1	28·9	29·0	29.1	63	70	64	58	56	55	·416	·263	·314	·72	·35	·52	S.W.	2 W.	3 S.W.	4	1	4			
2	29·1	29·1	29.1	69	78	71	58	66	60	·336	·478	·371	·47	·49	·49	W.	1 S.E.	2 S.W.	5	2	7			
3	29·1	29·0	28·9	72	64	68	64	56	60	·489	·343	·411	·62	·57	·60	E.	2 S.E.	1 S.E.	2	8	10	11.30 a.m.	3.10 p.m.	·23
4	28·9	28·8	28·7	72	76	68	68	68	65	·331	·577	·577	·80	·64	·84	W.	2 S.W.	3 S.E.	1	9	8	12.15 p.m.	11. p.m.	·42
5	28·8	28·8	28·7	65	78	64	60	67	54	·451	·574	·285	·73	·53	·47	W.	2 S.W.	2 S.	1	2	4	10.40 p.m.	11.30 p.m.	·11
6	28·8	28·9	29.0	64	80	70	60	72	62	·465	·677	·449	·78	·66	·61	W.	2 W.	3 S.W.	1	2	4			
7	28·9	28·9	28·9	70	76	62	62	70	54	·449	·652	·312	·61	·72	·56	W.	3 S.W.	3 S.E.	1	5	2			
8	28·9	29·1	29·1	56	80	70	50	71	62	·282	·637	·449	·62	·62	·61	N.	2 S.W.	2 S.	1	10	8			
9	29·0	28·8	28·8	58	72	59	55	66	52	·393	·559	·296	·81	·71	·59	N.E.	1 S.E.	2 W.	1	10	8	1. a.m. 4.10 p.m.	5.30 a.m.	·67
10	28·9	28·8	28·4	64	68	58	60	61	51	·465	·443	·282	·78	·64	·58	S.W.	2 W.	3 W.	1	10	10	8			
11	28·8	28·8	28·8	56	66	57	50	56	50	·282	·316	·268	·62	·49	·57	W.	2 S.W.	3 S.E.	1	5	10	9	6.10 p.m.	1·01
12	28·8	28·8	28·9	64	68	58	50	53	52	·176	·204	·309	·29	·29	·64	S.E.	1 N.E.	2 E.	2	2	8	4	4.30 p.m.	6.40 p.m.	·19
13	28·9	28·9	28·9	72	75	72	61	64	61	·390	·449	·390	·49	·51	·49	W.	2 S.W.	2 S.E.	1	1	2	3			
14	29·0	29·0	29·0	70	84	70	62	62	60	·449	·262	·385	·61	·22	·52	W.	1 S.W.	2 S.E.	1	2	2	4			
15	28·9	28·9	28·9	72	80	71	60	64	62	·358	·382	·436	·45	·37	·57	S.W.	1 S.E.	2 W.	1	8	5	8			
16	28·9	28·9	28·9	70	80	71	62	68	62	·449	·524	·436	·61	·51	·37	S.E.	2 S.E.	2 S.W.	1	5	4	2	6.30 a.m.	9. a.m.	·12
17	29·0	29·0	29·0	75	92	81	66	73	74	·519	·555	·745	·59	·37	·70	S.W.	2 S.W.	3 S.W.	1	4	2	3			
18	29·0	29·0	29·0	80	91	82	72	74	71	·677	·610	·610	·66	·41	·55	S.E.	2 S.W.	2 S.W.	1	2	3	2			
19	29·0	29·0	29·0	83	86	74	70	76	65	·558	·762	·497	·49	·61	·59	S.W.	2 S.W.	3 S.W.	1	1	5	2	12. m.	12.40 p.m.	·02
20	29·0	29·0	29·0	78	94	78	66	80	74	·478	·833	·785	·49	·52	·81	S.W.	1 S.	2 S.	1	2	3	2			
21	29·0	29·0	29·0	76	96	84	68	81	72	·577	·853	·623	·64	·50	·53	S.W.	1 S.W.	2 W.	1	3	2	2			
22	29·0	29·0	29·0	86	105	82	70	78	70	·518	·728	·572	·41	·44	·52	S.E.	1 S.E.	1 W.	1	2	1	1			
23	29·0	29·0	29·0	84	99	79	64	74	70	·329	·502	·612	·28	·27	·61	S.E.	1 S.	1 S.W.	1	4	2	4			
24	29·0	29·0	29·0	80	100	82	62	78	66	·316	·653	·425	·39	·33	·38	S.	1 S.E.	2 S.	1	3	3	2			
25	29·0	29·0	29·0	83	100	82	70	78	70	·558	·653	·572	·49	·33	·52	S.E.	2 S.E.	2 S.E.	1	2	2	2			
26	29·0	29·0	29·0	85	100	84	71	75	70	·570	·530	·545	·47	·27	·46	S.W.	1 S.E.	2 S.E.	1	4	3	1			
27	29·0	29·0	29·0	84	102	84	68	78	70	·497	·633	·545	·45	·31	·46	S.W.	1 S.W.	2 S.W.	1	2	5	1	12.20 p.m.	2. p.m.	·06
28	29·0	27·0	29·0	84	92	75	76	78	65	·789	·768	·483	·67	·51	·55	N.	1 N.E.	2 S.W.	1	3	2	2			
29	29·0	29·0	29·0	274	98	85	67	81	72	·568	·826	·609	·67	·45	·50	N.E.	1 S.E.	2 S.E.	1	2	1	2			
30	29·1	29·2	29·1	83	98	82	70	82	70	·558	·875	·572	·49	·48	·52	S.E.	1 S.E.	1 S.E.	1	2	3	3			
31																								

Bibliographical Record.

ADDRESS ON THE REGISTRATION OF DISEASES, read before the New York State Medical Society, at its Annual Meeting, in Albany, 1858, by Thos. C. Brinsmade, M. D., Vice-President of the Society.

A Resolution of the New York State Medical Society makes it incumbent upon the Vice-President to deliver an Address, at some period of its annual session. In accordance with this resolution, this Address was prepared by Dr. Brinsmade, embracing statistics, with deductions therefrom, from a record made in his own practice for *twenty-one years* uninterruptedly, and "which," says he, "but for this requisition would probably never have been made so public."

The result of these incessant, persevering labors, for so long a time, is a vast and compendious record of facts, in a multitude of tables—the very facts, so far as they go, of that kind which have been a very great desideratum in medicine; indeed, which are now acknowledged to be indispensable for the establishment of some of its elementary principles, and upon a sufficient collection of which recorded statistics the most sanguine hopes and brilliant expectations have been founded. And yet, so fully appreciative of the importance of such records as has been the Profession, scarcely any effort has been made towards supplying the want. This, no doubt, from the need of a systematized plan, from the accuracy requisite in particulars, the persevering dilligence necessary to make them valuable, and, in the aggregate, the great amount of time necessary to

make accurate and particular notes, taken from an active business, where system in regard to times and hours for special purposes is more difficult of attainment than, probably, in any other. For this reason, this work, though so compendious and valuable a collection, is less an object of admiration, than the steadfastness of purpose and active dilligence in continuing to note down these statistics throughout so long a time. The way in which this was accomplished, was by punctuality and system. Says the author: "It is impossible for any one who is visiting from five to twenty patients a day, to remember, at the end of a week, important particulars regarding them with sufficient accuracy to make his observations of any practical benefit."

From so large a collection, then, of recorded facts, we have reason to hope that important deductions may be made. If such has not been the case, it is because of the need of some one to examine and compare them in all their bearings and relations. This, indeed, done as it should be, will prove a herculean task, but can not be without its reward to the laborer and to science. Some important deductions are made by the statistician himself. These are represented by tables and diagrams.

Table I. shows the influence of the seasons upon the two great orders of diseases, the *miasmatici* and the *pneumonici*. We shall quote from the context, to explain:

> "So far as heat is concerned, these two classes are the direct antitheses of each other, — the latter, the pneumonici, retiring as the vernal and summer heat increase — the former, the miasmatici, advancing or receding with the wave tides of heat and humidity."

Table II. exhibits the "influence of heat in developing the two miasmatic diseases, diarrhœa and cholera morbus, and its equally striking influence in diminishing the number of cases of the two great pneumonic diseases, bronchitis and pneumonia."

"An examination of the table will show that there has been, during the past twenty-one years, a constant increase in the number of cases of bronchitis, from January to March inclusive, though the range of the thermometer has been from 29° in January, to 34° in March. Here is an apparent contradiction of our first deduction that the number of cases of bronchitis lessened as the heat increased; but when we consider that February and March are the two most inclement months of the year, on account of the sudden and extreme variations of temperature, and the prevalence of high and long continued winds, we find that sudden variations of temperature are more conducive to the disease than either long continued heat or cold. But in May, when the thermometer has risen from an average of 34° in March to an average of 52°, we find the number of cases of bronchitis has diminished from 800 in March, to 52; and coincident therewith we find an increase in the number of cases of diarrhœa from 125 in April to 220. In June, the thermometer indicates a mean temperature of 67° (an increase of 15° on the preceding month), and the number of cases of bronchitis has fallen from 520 in May, to 280, and the number of cases of diarrhœa has increased from 220 to 465. In July, there is further increase of heat of about 6°, and an increase in the number of cases of diarrhœa from 465 in the preceding month to 1,120, and a coincident diminution in the number of cases of bronchitis from 280 in June, to 180 in July and August.

This sudden increase in the miasmatic disease is to be attributed to the combined influences of long continued heat and drought, and the prevalence of the south wind for the two and a half preceding months. With the decrease in the temperature in August, we have a decrease of 100 cases of diarrhœa, but it is not until October that the effects of the summer heats and winds have apparently exhausted themselves."

TABLE III. presents a summary of all diseases treated during the twenty-one years.

"We find a constant increase in the number of cases treated, from December to March inclusive, in which latter month is shown the effects of high winds and sudden and extreme variations of temperature, in an increase of nearly four hundred cases, chiefly pneumonici, over the number treated the preceding month; and a decrease of four hundred and fifty cases during the next month, April. In May, there is an increase of two hundred and fifty cases over the number treated in April. In June, there is a slight decrease. But in July, there is a sudden increase of one thousand cases over three thousand one hundred and sixty in June, caused entirely by the greater prevalence of the miasmatici referred to in the preceding table and context."

"From this time on the number of cases constantly decreases with the temperature, until the minimum number of cases is reached in November. The minimum of temperature is reached in January, and is signalized by an increase in the number of cases, chiefly pneumonici."

Here are conclusions precisely alike to those deduced by HAVILAND from the Mortuary Statistics of the Register General of Great Britain, etc.

If some may choose to say that the author has then made no new discovery, deduced no new facts, but only re-affirmed and corroborated the deductions of others, is it not an important fact to have established, that the same law holds good here as there? that, with their diverse climate, soil, etc., this law is infallible? Or, if they assert that these long arrays of figures prove only what common observation has made as familiar as household words, viz., the greater prevalence of miasmatic diseases in hot months, and their increase, *pari passu*, with the increase of temperature, and of pneumonic diseases in cold months, etc., may not the author claim that his tables demonstrate the general law of cause and effect between the prevalence and and increase of particular forms of disease, and the condition of humidity and rate of increase or decrease of temperature, and have also established the absolute relative prevalence of particular forms of disease under given circumstances?

This is surely something of practical importance contributed to our art.

But though the hygrometric and thermometric variations of the atmosphere influence so strikingly the forms of disease, and their relative prevalence, as is shown by these tables, there are still more intricate problems to be solved, —the influence exerted by various other agencies.

How many thousands of facts are there tabled, which can in no way, by the influence of these two causes, or by any known influences, be explained. Doubtless many among

them are subject to, and governed by, varying electric and ozonametric conditions, and of others, various and diverse, of which we can take no note at all.

Such tables need, too, to be more specific in regard to those conditions which are noted. We require to have not only the monthly averages of the thermometer and barometer, total amount of rain for month, general prevalence of winds, etc., but we require to know all these conditions, and more too, at the very time of and preceding the outbreak, prevalence, and decline of particular forms of disease. Such observations we need, to throw light upon that fact which the author has shown by his tables. The greater prevalence of the pneumonici in February and March, contrary to the general law of greatest prevalence during greatest cold, etc., the minimum of temperature being reached in January. This is explained by the author, by the sudden and extreme variations during these months of February and March; and the immediate and direct effects of these variations is what we would wish to see exhibited in these figures, and which can only be effected by more specific observations and notations.

The classification adopted by the author, is the "Statistical Nosology" proposed by Dr. Wm. Farr, of England, at the request of the "Statistical Congress in Brussels." We observe that, in it, many symptoms are erected to the dignity of diseases themselves; which may perhaps prove advantageous for purposes of this kind, as particular symptoms of organic diseases will exhibit aggravations and improvements under atmospheric influences, whilst little organic change will be observed in the diseased organ; and hence it becomes an important matter to observe changes in particular symptoms, and their relations to atmospheric changes. E. P. C.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, For the Year 1858. Published by the Legislature.

The work having the above title is a volume of 655 pages, on good white paper, neatly bound in cloth, and illustrated with twelve engravings in excellent artistic style.

We have examined the volumes of Transaction of the Medical Society of our native State with unusual interest, as it contains many papers of great value.

Among the twenty-six papers on different subjects, those which have most fully attracted our attention are the *Address of* Dr. Brinsmade, of Troy (the present President of the Society, and which Address is more fully noticed by our friend Dr. Christian, on another page); *Osseous Union of Inter-Capsular Fractures of the Neck of the Femur, by* Alden March, M. D.; articles on *Cerebro-Spinal Meningitis, or Brain Fever, or Congestive Fever*, giving the history of this severe disease, as it recently occurred in several localities in Central and Western New York, by Dr. D. G. Thomas, of Utica, Dr. J. V. Kendall, of Clay, Onondaga Co., and Dr. T. H. Squire, of Elmira; the Annual Address of the President, Dr. A. Willard, on *Air, Exercise, and Sunlight; On the Use of Amylene as an Anæsthetic*, by Dr. John G. Orton, of Binghamton; *Comparative Use of Ergot and Forceps in Labor*, by Dr. B. F. Barker, of New York; *An Account of an Instrument for the Radical Cure of Ingnical Hernia*, by Dr. Armsby, of Albany; and *An Account of the Uterine Elevator*, by Dr. J. Marion Sims, of New York. There are other papers, also of decided merit, which our space does not allow us to specify.

It would give us pleasure to present a synopsis of several of these important papers, but we must forego that gratification, at least for the present. The volume is a credit to the medical men of the Empire State and to the

Legisature which relieves them from the expense of its publication. We shall hope to see the Legislatures of other States following the example of New York, in publishing the Transactions of their State Societies. A. B. P.

JOURNAL AND TRANSACTIONS OF THE MARYLAND COLLEGE OF PHARMACY.

We have received Vol. I. No. 1, of the above new periodical, devoted to Pharmacy, and published as the official organ of the Maryland College of Pharmacy, at Baltimore, and edited by Mr. WILLIAM S. THOMPSON.

We welcome cordially this addition to the ranks of Pharmaceutical Periodical Literature, and, judging from the original papers in the No. before us, believe it will do much in advancing and diffusing knowledge concerning our Profession. F. S.

FORMULARY OF GERMAN OFFICINAL PREPARATIONS.

The above is the title of a little pamphlet, which we have received from Mr. HENRY BRIDGEMAN, publisher of the *American Druggists' Circular*.

It consists of translations, by F. F. MAYER, of formulæ, officinal in the German Pharmacopœas, also of many German technical names for preparations and drugs of our own materia medica. He should think it would be valuable to those Physicians and Apothecaries residing in districts containing a large proportion of the German element in their population. F. S.

BOOKS and PAMPHLETS RECEIVED.

Bucknill and Tuke on Insanity. Graham's Chemistry. Plates to Wilson on the Skin. Barclay's Medical Diagnosis. Miller's Obstetrics. Peaseley's Histology. Constitution and By-Laws of the St. Louis Pharmaceutical Association.

Editorial Department.

The Nashville Medical Journal, and its Impression of the Doings of the American Medical Association at Washington.

In a spirited account of a visit to Washington for the purpose of attending the meeting of the Association for the "promotion of Medical Science and the elevation of the Profession," written in the characteristic style of the Senior Editor, our cotemporary, *The Nashville Medical Journal*, says:

"To one very singular omission at least, in the Report of the Committee upon Medical Literature, we shall call their attention upon the publication of the Transactions. We should speak of the Report as able, if we could reconcile ability with unfairness. Our readers know how sedulously we guard our pages against even allusions to sectional prejudices, but if the reading medical public will not feel some astonishment in observing in this Report no allusion to the contributions to medical science by Henry Fraser Campbell, in a volume published just before the meeting of the Association, we shall take great pleasure in acknowledging ourself mistaken. It is an omission for which there is but a single excuse, and that such a one as a medical man of our whole country should be ashamed to acknowledge."

The Chairman of the Committee on Medical Literature, before reading a portion of the Report alluded to, stated, in the presence of the Association, that for the contents of that document he alone was responsible; and as he is desirous of shielding his associates from such serious charges and unbecoming insinuations as are contained in the paragraph above quoted, that statement is now repeated.

Simply as Chairman of the Committee, he would have left it to others to have defended his acts from the assaults of the medical press; but, in our editorial capacity (assuming that mode of address), we feel called upon to defend both the act, or rather the omission, which is complained of, and the motive by which it was dictated.

Our first emotions on reading the passage from the *Journal*, were those of unmitigated surprise; soon a feeling of indignation stirred the blood; but on calling to mind the many pleasant associations connected with our, at least, quondam friend — the many polite attentions we have received from him, and others connected with him, and the courteous manner in which, in every capacity, he has heretofore so uniformly treated us, — those feelings speedily abated, leaving us in a state of confused surprise, having some degree of appreciation, however, of the total misapprehension of the whole matter under which the editor is laboring.

With perfect coolness, though the thermometer is near ninety degrees in the night, we shall proceed in an attempt to remove this misapprehension, and if we succeed in doing so, we must ask Dr. Bowling as a *gentleman*, and we are confident our appeal will not be in vain, to make the *amende honorable* for the language he has used. But, whether we succeed in convincing him of his error or not, we shall have the undisturbed consciousness that the direct charge of "unfairness," so hastily made, as well as the less manly insinuation of our being influenced by sectional feelings and improper motives, is totally and absolutely devoid of any foundation whatever in truth.

The simple case is, that Dr. H. F. Campbell's volume of "contributions to medical science" of which the *Journal* speaks, though not at present within our reach, according to our recollection, consists of one or two Reports made to the American Medical Association, and his Prize Essay

receiving the award of one hundred dollars from that Body through a Committee of which Dr. BOWLING was chairman, and all the contributions were *published in its Transactions.* We believe it has not been the general custom, and certainly it was deemed by us, and by others, as experienced and perhaps as wise as the Editor of the *Nashville Medical Journal,* to be out of place for the Committee on Medical Literature of the Association, to review the Transactions of that Body. The object of noticing particular works by the Committee seemed to us to be to place upon the records of the Association some account of the current literature of the American Medical Profession; and that which was spread upon these records in full certainly, did not need to be reiterated in so imperfect a form. Now, this is the simple reason, sufficient or not, why Dr. CAMPBELL'S papers were not noticed; and the Committee treated the other Reports of the Association, and its other prize essays, in precisely the same manner. Drs. TRASK, HARTSHORN, HAMMOND, HAMILTON, and all the rest who have contributed so ably to Medical Literature through the medium of the Association, and whose productions have been published in separate forms, either with or without consent, have precisely the same reason to complain. It is quite sufficient to completely disprove all charges of unfairness in this matter to say, that none of the productions contributed to the Association were alluded to in the Report. To have noticed Dr. CAMPBELL'S, omitting the rest, would have been invidious and unfair.

While upon the subject of this Report, lest others, with more show of reason, should, from any apparent omissions, feel aggrieved, it may be proper to state that it was announced in the Report that, though in the appendix all the works recently published, and not previously noticed by other Committees, would, as far as possible, be inserted, yet that the Committee would "in the body of the Report

attempt to notice only a portion of the publications, omitting all, with a few specified exceptions, whether meritorious or not, which the reporter has not examined with sufficient care to justify the expression of an independent opinion." Besides this, as already intimated, for want of time, but a moderate portion of what was written and will be published was read at Washington; and some notices of works, which were written, were accidentally, and others designedly, omitted in the reading. For instance, the notice of the ethnological works of NOTT and GLIDDON, being somewhat lengthy, was, with others, designedly passed by; while notices of the recent surgical works of Prof. SMITH, of Philadelphia, and of Dr. BOWLING'S colleague, Professor EVE, of Nashville (being on the same pages and in the haste turned over together), were accidentally omitted.

Now, in view of this statement of the facts, and in view of the farther fact that during our whole career of journalism, not one syllable has ever been written or permitted in the pages of our Journals, of a sectional character, we shall confidently expect that the charge of unfairness and the insinuation of sectionalism and improper motives will be unequivocally withdrawn by the editor of our spirited cotemporary, whom, as heretofore, we hope long to regard as our friend. A. B. P.

Clinical Instruction.

Prof. A. B. PALMER: *Dear Sir,*—The editorial in the June No. of THE PENINSULAR AND INDEPENDENT, which bears your initials, although it has not as studiously concealed the enormity of the impositions practiced upon the popular, and even the professional, credulity, in the farces annually enacted, entitled "College Cliniques" and "Hospital Instruction," it has, like that of your colleague's in the preceding No., done so little toward giving the unini-

tiated reader an idea of the *status* of "Clinical Instruction" in the United States, that I claim the privilege, now that the door once closed to controversy on that subject has been re-opened in contravention of a stipulation, of giving you, through the same medium, my impressions of the actualities to which that phrase is applied in our own country, and then take leave to speak of what, in my humble opinion, should be its legitimate equivalent, when reduced to practice. I do this, because the putative advantages of the existing order of things in relation to Clinical Instruction have furnished the only ostensible reasons for breaking the unity of the University, by removing the Medical Department of it from Ann Arbor to Detroit. This I propose to do in a familiar epistolary style, and in a spirit which shall entitle the subject-matter to consideration, however little may be due to the source from whence it emanates.

In the first place, I wish to remind you of a fact, important to be kept in mind during the discussion of this question, which is, That medical students are not obliged by any institution with which I am familiar, in the United States, to attend a course of Clinical Instruction, as a condition on which the degree of M. D. is to be conferred. They may do so or not, as may be found compatible with their convenience, or agreeable to their inclinations. If I am in error in this respect, your exchange catalogues will furnish the means of making the correction. Whilst impressing this fact upon your memory, I desire to know from you, if it is not true, as a rule, that young men in pursuit of medical degrees (call them honors if you like), will evade the fulfilment of every requirement not made positively obligatory by the regulations of the Institution whose signet they expect to obtain? Most men who acquire professions are stimulated to study by their necessities, and do not do it *con amore.* The exceptions are limited to the few who are actuated by the inspirations of a higher

ambition, and another, but not numerous class, who, being above the necessity of daily labor, prefer an honorable professional employment to a life of idleness and disreputable leisure.

The relation of the Schools to the Hospitals in this country has not hitherto been such as to command the confidence of the students, or to engage their attendance in any respectable proportion, or for any considerable part of the college lecture-term. This want of appreciation of the advantages of Hospital Instruction on the part of students may be explained in this way. The first and second course students have been alike furnished with hospital tickets, which, on certain days, would secure to them the privilege of marching through the wards of an hospital, under such circumstances as would render it impossible for them, individually, to carry away any knowledge, acquired by the use of their own faculties, of the symptoms which marked the various cases, or the pathological condition of which these symptoms were the outward expression, and the ultimately meagre attendance of students upon the Hospital Cliniques has been undoubtedly attributable to their indiscriminate admission, to their want of preparation, to their having no personal communication with the sick, to the absence of an obligatory requirement by the college authorities, and to this fact (of paramount importance) that the Clinical Course has been a mere appendage of the department of didactic instruction.

Of the applicability of the foregoing remarks to the state of things existing in New York, Philadelphia, and Boston, not many years since, if not at this time, I refer, for verification, very confidently, to yourself, and to two of your colleagues in the University, who visited these cities the winter previous to the opening of the Medical Department at Ann Arbor.

If reforms have taken place at the east in this depart-

ment of instruction, they can neither have been very rapid nor quite universal, if we can form an opinion from the single, but very significant, fact stated by yourself,—that of the thousand medical students composing the classes which thronged the lecture-rooms of one of our metropolitan cities last winter, only twelve of that number availed themselves of the facilities afforded for clinical observation by its hospitals, whose inmates can be counted by thousands. What reader of the *American Medico-Chirurgical Review*, or of the *Medical Independent*, which repeated its sentiments, could have dreamed of the existence of such a picture, after having perused the articles, originating or copied into those periodicals, on the paramount importance of Clinical Instruction, in which it was treated of as an institution having an organized existence and sustained by a vigorous vitality. Instead of this, we have copied, and still strive to perpetuate, the defects of an effete and decaying model which our English ancestors and Gallic friends cherish with a feeling allied to fanaticism. That you may see how chronic this malady is, and how much it has, with us, become, by the right of primogeniture, an hereditary disease, of paramount importance for us to study, I refer you to the letters of Professor Austin Flint from Europe, and to the Introductory or Inaugural Lecture of Professor Smith of the University of Pennsylvania, from each of whom you will learn, perhaps with less surprise than I did, that the resident interns are the only persons who gain much information by their attendance upon the magnificent hospitals to be found in the cities of London and Paris.

What, then, is the line of duty for us to pursue, in the midst of a young people whose institutions are yet plastic and impressible? Will it be honorable in us, holding the relation we do to the University, either to be instrumental in transplanting to our virgin soil this fruitless tree of European growth, or silently to permit it to be done by

others? I apprehend not, and for that reason have taken this method to compel you to put off the extraordinary reserve which characterizes the Editorial that has called forth these remarks.

Believing now, as I did in 1853, when I had the honor of reporting my views on this subject to the American Medical Association, that this department of Medical Education will never be successfully conducted until the hospitals become "Schools of Practice"—until Clinical Instruction becomes a distinct department, and is divorced from the school of elementary education—until a high standard of acquirement is demanded of students as one of the conditions of admission—until attendance is compulsory, and provision made for a free and unembarrassed intercourse between the students and the inmates of the hospitals, and in such numbers as shall not be annoying to the sick or render the visits of the students of no utility.

Whenever our State system of education shall include a well endowed hospital as a part of the means to be employed in the qualification of medical students for the duties of active life, and the administrators of her educational trusts shall have provided the means and exercised the powers necessary for carrying into effect these important reforms, I shall lay down my feeble opposition to the transposition of the Medical Department of the University; but, till then, I can only regard an open advocacy of the measure, or a silent acquiescence in it, in the light of a crime.

Very Respectfully, Yours,

Z. PITCHER.

Detroit, June 20th, 1858.

In the May and June Nos. of this journal were articles on the subject of Clinical Instruction, and on the Removal of the Medical Department of the University to Detroit,

called out by a Committee of the Board of Regents appointed to take the question of removal into consideration, and who, as they were to make a Report, desired expressions on the subject from various sources.

As in the prospectus of THE PENINSULAR AND INDEPENDENT it was stated that its "pages would be open impartially for the fair, just, and courteous discussion of all matters relating to Medical Ethics and Policy," we have invited, and now cheerfully admit from Professor PITCHER, the foregoing communication, criticising more particularly the article over the initials of the present writer, in the June No.

Not attempting to meet, in a full and detailed manner, all the statements and arguments contained in the communication, or to say anything with a view of breaking its essential force, we deem it proper to offer brief explanations of some of the points stated.

The letter avers that the "door once closed to controversy on that subject has been opened in contravention of a stipulation."

Now, we do not understand that there was ever any stipulation to exclude from our pages the fair and courteous discussion of any question of Medical Policy, but, on the contrary, previous to our first issue, we announced distinctly that our pages would be open to all such discussions, if conducted in a just and courteous manner; and we deem this question one of Medical Policy. The stipulation that we did enter upon was, that we would make the Journal the organ of no clique or party in the Profession; that we would "guard with vigilance against the indulgence of any partisan feelings or practices; that we would guard against the revival of past controversies connected with the history of the former Journals (*The Peninsular Journal of Medicine*, and *The Medical Independent*), or any of the persons and parties connected in any manner with them."

We also agreed "that all improper personalities should be excluded, and all subjects specially tending to the production of personalities, or the engendering of feelings inconsistent with the proper peace and harmony of the Profession; and that, in every way, due courtesy and forbearance would be exercised towards all."

That Dr. PITCHER understood this language as excluding discussions on Clinical Instruction and the Removal Question, his intimation is abundantly sufficient to induce us to admit; but such was not our understanding, or nothing of the kind would have appeared. The great and sole object of the stipulation was to avoid *personal* controversies, and the disturbance of the proper peace and harmony of the Profession; and we do not think that the courteous discussions of these subjects specially tend to the production of personalities, and, in the light in which we understand the subject, they have no connection with the history of the respective Journals consolidated into this. All such subjects, it was desirable to avoid, while all legitimate matters of Medical Policy ought not to be excluded from any journal possessing a proper character and independence. We have occupied so much space on this point, because we deem it important that our position should be well understood.

With regard to the other Schools in this country not requiring hospital attendance in order to graduation, several of them do require that a "hospital ticket" be taken. This is the case with some of our neighboring Schools; but the hospital is attended while six other lectures are listened to in the same day, and the visits made to them not unusually more than once or twice a week; and in most, as in Philadelphia, the hospital ticket only gives the student the privilege of attending in the amphitheatre, similating the whole affair to a College Clinique, which, as stated in the former article, has been condemned by the National

Association, and the Profession generally, as no proper substitute for real Hospital Instruction.

We perfectly agree with Dr. PITCHER that the student should be instructed in the wards of a hospital, and should use his own senses in investigating cases; that but few should be present at a time; that the visits should be deliberate and daily, and when the student has little else on hand; and that such attendance *should be made obligatory upon all students as a pre-requisite to a degree.* Most of these propositions we stated in our former article which called forth these strictures, and we gave as a reason for the last, that unless it was *required,* but few would thus attend. To illustrate this, the fact was alluded to that of all the students attending lectures during the winter in Philadelphia, though several hundreds attend the cliniques in the amphitheatre of the hospital once or twice a week during the sessions of the Colleges, and a considerable number attend in a similar manner during the recess, yet recently it was found that only about a dozen, or at most fifteen, were in *regular daily attendance in the wards* of the Pennsylvania Hospital. Our article did not state that only twelve students attended Hospital Instruction in our medical emporium, but that only about a dozen were in regular daily attendance, during the present recess of lectures, in the *wards* of the hospital.

We also agree fully with our friend respecting the imperfection of Hospital Instruction in Europe as well as in this country, and our modesty will not prevent us from saying that the system which we, in connection with Dr. PITCHER, are attempting to carry out in the Clinical Course in this city, is on a better basis—is more truly Clinical Instruction—than any with which we are acquainted. We do not say that Detroit is a better place for a Medical School than Ann Arbor because we wish to assimilate our course of Clinical Instruction to that of

other schools in this or any other country, but for the purpose of rendering it more convenient for the students and teachers, and still more, for the purpose of using the limited materials occurring in the hospital for successive classes the whole year, instead of as now for only a quarter of the year. Still, as stated in the former article, "much of the most useful Clinical Instruction may be given by arrangements already adopted, especially if further perfected and extended, and if attendance upon that course be made a requisite for graduation." It has been furthest from our intentions to be instrumental in transplanting any foreign system to our virgin soil, but it is our cherished object to cultivate and develop the modest plant which, by our Correspondent's and our own united efforts, we have succeeded in germinating.

The letter speaks of "compelling us to put off the extraordinary reserve which characterizes our Editorial." We do not understand the force of this remark. We have not been conscious of the least reserve, extraordinary or otherwise. The article was written in much haste, when away from home, surrounded by new and exciting scenes, and in the midst of social enjoyments; and although it might have been fuller, and on some points more explicit, we can assure our friend that no reserve was felt, as we have nothing to conceal.

We did not, it is true, urge upon the Regents immediate removal, as we saw difficulties in the way, pecuniary, possibly legal, and, less distinctly defined, ideal; and, knowing then, as intimated in the letter, that neither the University or the State had a hospital under its control, we were not prepared to take the responsibility of giving unconditionally such advice. But we were unequivocal in expressing our opinion on the abstract question of the best locality for a Medical School in the State, and our reasons for it; and if the entertaining of such an opinion be a

"crime," we have been a criminal for at least a dozen years, and fear we shall continue so for an indefinite period to come; and if it be any just ground of consolation, we have the reflection, that, with very few exceptions, we have the concurrence of all the medical men in and out of the State with whom we have ever conversed on the subject. Of the duty of the Regents under all the present circumstances, we have not attempted to decide. Respecting the best locality for a Medical College, we have expressed an opinion, and, as it is honestly entertained, it can not be retracted. A. B. P.

American Pharmaceutical Association.

We publish, in the *Miscellany* of the present No. of our Journal, the official notice of the coming meeting of this Association, at Washington, in September (14th) next, and we trust that many of our readers who may be interested in every thing that relates to the advancement of Pharmacy, will, upon understanding the high aims of the Association, as therein expressed, be led so to time their fall business-visit to the east as to be enabled to spend the week of the meeting in Washington.

We can safely assure all such (judging from the interesting nature of the proceedings heretofore, at each annual meeting) that they will be amply re-paid for the outlay of time and cost.

The laying aside of business care for a few days, the free interchange of opinions, the discussion of merit or demerit in prominent recognized pharmaceutical formulæ, the social companionship with men, eminent in our Profession for scientific and business abilities, all tends to give new life to the man wearied with business, to enhance in the estimation of the new members the dignity of his art, and, above all, to break down the barriers of selfishness and dis-

trust so much and so often exhibited between members of the Profession. The place of meeting, moreover, has many interesting features, lending an additional inducement to the visit. We hope to see the "*Corps Pharmaceutique*" of the North-West largely represented, and would remind all that each may contribute to the interest and value of the proceedings, by offering specimens of materia medica, pharmaceutical products, new formulæ, etc., etc. — whatever he may know would be of interest to the Profession at large.

We would call the attention of the Physician, as well as Druggist, to the Circular of the Committee upon *Home Adulteration*. This Committee, anxious to ascertain fully what classes of medicine are adulterated, how it is done, by whom, and what materials are used — all who may possess information bearing upon the subject, will benefit community by disclosing the facts in their possession to the Committee, and thereby aid in suppressing such nefarious transactions. F. S.

A New Source for Cod Liver Oil.

Messrs. Hazard & Caswell, of Newport, Rhode Island, have recently introduced into market an article of Cod Liver Oil, which, after examination, we pronounce to be as pure, as free from color, disagreeable odor and taste, as Cod Liver Oil seemingly can be. The known integrity and enterprise of these gentlemen is a further guaranty of its genuineness, and we deem it will in future prove a reliable source from which this valuable remedy may be obtained in its greatest state of perfection.

Pharmaceutical and Miscellany.

Compound Syrup of Yellow Dock and Sarsaparilla.

The use of the root of *Rumex crispus* (Yellow Dock) has greatly increased, during a few years past, in the treatment of scrofulous and syphilitic affections, by numerous physicians throughout the North-West.

I believe the Yellow Dock is generally preferred, in place of the Water Dock (*R. Britannica*), and Blunt-leaved Dock (*R. obtusifolius*); these last, however, being the only members of the genus *Rumex* recognised in our Pharmacopœia.

In view of the above, and of the fact that there has been no formula published, for an eligible preparation to represent this plant, the writer proposes the following, which is based upon the officinal process for making Compound Syrup Sarsaparilla, though differing from it in some essential characteristics:

Take of Yellow Dock Root and of Sarsaparilla (Honduras), each 3 lb. troy; Guaiacum wood, rasped, 9 oz. troy; Hundred-leaved Roses, Senna, and Liquorice Root, of each 6 oz. troy; infusion of Prunus Virginiana, 2 pints; Oil of Sassafras and Oil of Anise, of each 15 minims; Oil of Wintergreen, 10 minims; Diluted Alcohol, a sufficient quantity; Refined Sugar, 24 lb. troy.

After having reduced the dry materials, except the sugar, to a coarse powder, by grinding, introduce them into a close vessel, and pour upon them one gallon of the diluted alcohol; let the mixture stand twenty-four hours, and then transfer it to a displacement apparatus, and pour upon it, gradually, diluted alcohol, until the filtrate measures four gallons; reduce this tincture by the heat of a water bath to ten pints; filter; add the sugar, and dissolve by a gentle heat; then rub the essential oils with a little of the syrup, and mix thoroughly with the remainder; finally, add the infusion of wild cherry, when the syrup is cooled.

The infusion of wild cherry bark is prepared by macerating, for

twenty-four hours, in a closed vessel, five ounces, troy, of *Prunus Virginiana*, in coarse powder, with four fluid ounces of Jamaica rum; then transferring the mixture to a displacement apparatus, and pouring upon it, gradually, water, until the filtrate measures two pints.

To those unacquainted with the use of the displacement apparatus, the following method is recommended: Macerate the dry materials in three gallons and six pints of the diluted alcohol, for fourteen days; then express, and filter; evaporate the tincture to three pints, and proceed to finish the syrup as directed in the other process.

The dose of this syrup, for an adult, is from one to two tablespoonfuls, three or four times a day. It forms a transparent, brownish-colored syrup, of agreeable flavor; each pint represents four ounces of the dry ingredients. F. S.

Solvent Powers of Simple Syrup.

"*Improved method of making Lime Syrup.*—Take simple syrup, U. S. P., one pound; water two pounds; of unslaked lime, a sufficient quantity. Place all together in a bottle; shake frequently for a week; allow the lime to subside; and in three weeks the preparation is ready. Dose, a teaspoonful in a wine-glass of milk. This syrup is less bulky for exhibition, is more pleasant to the taste, keeps better, is far more powerful than aqua calcis, and we feel certain that any who have once used syrupus calcis will never go back to the old lime water."

"The writer finding it impossible to prepare proto-carbonate of iron by the officinal process (vide Pill. Ferri Carb.) devised the following method, by which nearly pure proto-carbonate was made. Proto-sulphate of iron was first made by Bonsdorff's process. A distillatory receiver was then fitted with a funnel, and the tubulure was tied over with a rag. The sulphate of iron, hot, was poured in, and then boiling solution of carbonate of soda. The precipitate was washed with hot *boiled* water, and as soon as the washings ceased to precipitate chloride barium, 'syrupus' was added by the funnel, and the whole poured into a dish; it was pure carbonate of iron and ready for use. The process consumes about twenty minutes." . . .

"Many substances may be dissolved in syrup, which it would be impossible to dissolve in water, for the reason that the affinity of the water in the syrup for the dissolved body, or its solvent, is completely neutralized by the affinity of the water for the sugar of the syrup. In other words, we propose to antagonize the disposition of the water to unite with the dissolved body, or its solvent, by the superior disposition of the water to keep itself united with the sugar. For instance, it is impossible to swallow Tinctura Camphoræ. If you mix

it with the water, this latter seizes upon the alcohol of the tincture, and the camphor is precipitated, and if you swallow this camphor mixture, more or less gastrodynia is sure to result. If, however, you mix the tincture with 'syrupus,' the water now is prevented by its attraction for the sugar, from seizing upon the alcohol, and you have the composition of the tincture undisturbed and yet sufficiently dilute to be swallowed. Here we have an antagonism of forces between the affinity of the water for the sugar on the one hand, and that of water for alcohol on the other. So again in the chlorine, iodine, or bromine syrups; owing to the affinity of the water for the sugar of the syrups, the former is not easily decomposed by the affinity which chlorine, bromine, and iodine respectively have for its hydrogen element. If we admit that caustic lime is more soluble than hydrate of lime, we can explain the ready solubility of lime in sugar as compared with water. In aqua calcis, the caustic lime is changed into hydrate by the excess of water, and, this being insoluble, falls down. In syrupus calcis the caustic lime can not take away the water of the syrup, and is consequently held dissolved. The inferior solubility of hydrate, as compared with caustic lime, also explains why, when water in excess is added to syrupus calcis, the lime is precipitated. Here the same quantity of sugar is present as before the water was added, but a hydrate of lime is formed by the excess of water, and this is precipitated. From a consideration of the truth which we have thus explained, we were able to infer the permanent solubility of many bodies in 'syrupus' which are insoluble, permanently at least, in water.

"The first substance which we will notice is tartar emetic. Wine of antimony is a good preparation, but owing to the poorness of the common wines and the expensiveness of the good ones, the preparation is generally unreliable. Now we have kept a solution of tartar emetic in 'syrupus' for six months without change; the syrup contained one scruple to the ounce. How admirable a thing then will a syrupus antimonii prove, especially to country practitioners, who too often, on going to the antimonial wine bottle, find its contents spoiled. It may be made of the strength of ¼ gr. to the fluid drachm." . . .

"Again, there is the anhydrous sublimed perchloride of iron, an infinitely better form for iron than the nauseous tincture ferri muriat. This anhydrous salt, when dissolved in 'syrupus,' remains *anhydrous*, and is far more astringent, as well as far pleasanter for exhibition than the tincture. This administration of an *anhydrous* chloride of iron will no doubt be found of great service in cases of menorrhagia, some states of albuminaria, as a gargle, and even as a simple tonic. The tinctures of the various resins, turpentine, etc., etc., may be administered in 'syrupus' far better than to dilute them with water. We have evidence enough, however, to call attention to the general

proposition we have tried to explain, and we must content ourselves with this."

The above abstracts are from a paper by J. Howland Bill, M. D., U. S. A., in American Journal of Pharmacy, for July, 1858.

Mel Despumatum (Prepared Honey).

Mr. Charles Caspari proposes the following method for clarifying commercial honey, being an improvement upon Mohr's process:

Dissolve twenty ounces of honey in forty ounces of water; add to this turbid solution, twenty-four grains of gelatine, dissolved in a few ounces of water; to this fluid, when mixed, add seven grains of tartaric acid, previously dissolved in a little water; the whole then again well stirred, and exposed to the heat of a steam or sand bath; it is then set aside until cold; then the white of two eggs, beaten to a lather, is added, and finally brought to the boiling point with it, once or twice, upon an open fire, which effects a perfect coagulation of the turbid slimy matter. The fluid should now be strained through a woolen cloth, and poured back, until it runs bright and clear, or it can be filtered through thick blotting paper; it should then be reduced, by evaporation, to twenty ounces.

[*Journal and Transactions of Maryland College of Pharmacy.*

Pills of Sulphate of Quinia.

Wm. B. Little, Pharmaceutist, of San Francisco, proposes a mode for preparing pills of Sulphate of Quinia, which he states to be superior to that heretofore adopted, viz., using aromatic sulphuric acid. It is as follows:

To each ounce of powdered Sulphate of Quinia, add two scruples tartaric acid; triturate well, and moisten slightly with water, and then add sufficient glycerine to form a mass.

From the hygroscopic nature of the last excipient, we should think that pills thus made would soon become soft, if at all exposed to atmospheric moisture. Has our friend Little ascertained about that? F. S.

American Pharmaceutical Association.

The Seventh Annual Meeting of the "American Pharmaceutical Association," will be held in the City of Washington, D. C., on Third day (Tuesday), the 14th day of September next, at 3 o'clock P. M.

The objects of the Association and the conditions of membership are explained in the following extracts from the Constitution:

Article I.

This Association shall be called the American Pharmaceutical Association. Its aim shall be to unite the educated and reputable Pharmaceutists and Druggists of the United States in the following objects:

1st. To improve and regulate the drug market, by preventing the importation of inferior, adulterated, or deteriorated drugs, and by detecting and exposing home adulteration.

2d. To establish the relations between druggists, pharmaceutists, physicians, and the people at large, upon just principles, which shall promote the public welfare and tend to mutual strength and advantage.

3d. To improve the science and the art of Pharmacy by diffusing scientific knowledge among apothecaries and druggists, fostering pharmaceutical literature, developing talent, stimulating discovery and invention, and encouraging home production and manufacture in the several departments of the drug business.

4th. To regulate the system of apprenticeship and employment, so as to prevent, as far as practicable, the evils flowing from deficient training in the responsible duties of preparing, dispensing and selling medicines.

5th. To suppress empyricism, and as much as possible to restrict the dispensing and sale of medicines to regularly educated druggists and apothecaries.

ARTICLE II. — *Of the Members.*

SECTION 1. Every pharmaceutist or druggist of good moral and professional standing, whether in business on his own account, retired from business, or employed by another, who, after duly considering the objects of the Association and the obligations of this Constitution, is willing to subscribe to them, is eligible to membership.

SEC. 2. The mode of admission to membership shall be as follows: Any person eligible to membership may apply to any member of the Executive Committee, who shall report his application to the said Committee. If, after investigating his claims, they shall approve his election, they shall, at the earliest time practicable, report his name to the Association, and he may be elected by two-thirds of the the members present, on ballot. Should an application occur in the recess, the members of the Committee may give their approval, in writing, which, if unanimous, and endorsed by the President, shall constitute him a member, and the fact be reported to the Association, at the next succeeding meeting.

SEC. 3. No person shall become a member of this Association until he shall have signed this Constitution, and paid his annual contribution for the current year. All persons who become members shall be considered as permanent members, but may be expelled for improper conduct, by a vote of two-thirds of the members present at any annual meeting.

SEC. 4. Every member shall pay into the hands of the Treasurer the sum of two dollars as his yearly contribution, and is liable to lose his right of membership by neglecting to pay said contribution for three successive years. Members shall be entitled, on the payment of three

dollars, to receive a certificate of membership signed by the President, Vice-Presidents, and Secretary, covenanting to return the same to the proper officer on relinquishing their connection with the Association.

Sec. 5. Every local Pharmaceutical Association shall be entitled to five delegates in the annual meetings, who, if present, become members of the Association, on signing the Constitution, without being balloted for.

Sec. 6. Pharmaceutists, Chemists, and other scientific men who may be thought worthy of the distinction, may be elected honorary members, upon the same conditions, and under the same rules as appertain to active members. They shall not, however, be required to contribute to the funds, nor shall they be eligible to hold office or to vote at the meetings.

Sec. 7. Members who have paid their annual contribution for ten successive years shall be considered life members, and exempt from their yearly payments, and entitled to a certificate to that effect.

CHARLES ELLIS, *President.*

Philadelphia, 6mo. 20th, 1858.

To Druggists, Apothecaries, and Physicians:

The Committee on Home Adulterations hope to be able to report, at the next Annual Meeting of the Pharmaceutical Association, to be held in Washington, in September.

To that end, they earnestly solicit all who feel interested in this subject, to communicate any facts in their possession, accompanied, if possible, with samples, to some one of the Committee. When needful, the Committee will bear the expense of such packages by Express.

C. B. GUTHRIE, 88 John St., New York.
C. T. CARNEY, Boston, Mass.
Wm. FISKE, Cleveland, Ohio.
A. B. TAYLOR, Philadelphia, Penn.
A. P. SHARPE, Baltimore, Md.

Correspondence.

From our Chicago Correspondent.

We are about to prove, in this region, whether the theory is true, That a wet season promotes summer diseases. The whole spring and summer, thus far, has been marked by an unusual amount of rain. The lake is some twenty inches higher than last year, and all the river valleys have been swept by inundations. The Des Plaines River, which is a tributary to the Mississippi, has, for most of the season, been discharging part of its waters, through Chicago River, into Lake Michigan, so that a boat might now be run in natural

channels from Buffalo to New Orleans. As yet the amount of moisture in the air and on the earth has produced no effect upon the health of the State. There is no sickness, except such accidental cases as occur at all seasons. Mercy Hospital is nearly empty.

I have visited, in consultation, of late, a case of phlegmonous erysipelas, accompanied by extensive sloughing of the subcutaneous tissue, and some gangrene of the skin, covering the cavities thus formed. The surgeon in attendance produced a sudden and remarkable improvement in the character of the pus discharged, as well as a decided diminution of its quantity, by injecting into the cavities weak solutions of astringents, especially sulphate of zinc; in another instance, mur. tr. iron was used in the same way; and in still another, very dilute muriatic acid was thrown in, with admirable results. No unpleasant effects of any kind were produced, and the promptness of the action was such as to suggest the idea that all this class of foul abscesses, when accessible externally, may be reduced at once to something approximating to healthy sores, with a discharge whose quantity can be regulated at the surgeon's pleasure.

The enterprize of the medical men of this city seems to be expending itself in Societies and Dispensaries. We have the Cook Co. Society, which is practically the City Society, whose fee bill is the one usually acted upon; then there is the German Society, with a fee bill one third lower. A Pathological Society has been established, of late, and a newly organized Association contemplates the establishment of an eye and ear infirmary. One dispensary is already in existence, and another is in prospect. The movers in the dispensaries are mostly young men, who take these measures to obtain a standing in the Profession.

The hypophosphites of iron, lime, soda, and potash are being extensively tried here, in consumption. The results, as yet, are not very brilliant. I have discovered, however, that some of the druggists here are committing a gross error in preparing their articles. They use a formula which results in *phosphates*, without a particle of *hypophosphites*, so that I am inclined to think that, in many cases, the physician has not given a single grain of the salts which he supposes he was administering, but the *phosphates* instead of them. If the same confusion exists in your city, it should be looked to. Furthermore, I have seen the same erroneous formula sent on from Philadelphia by a supposed good authority, so that it is a point to be investigated, whether a large part of the articles from eastern establishments which come labelled *hypophosphites* are not really *phosphates*. If you of Detroit have occasion to prescribe these remedies, I counsel you to have them tested by a chemist. I understand that the true hypophosphites are somewhat difficult and tedious of manufacture, and liable to gradual change into phosphates, by absorption of oxygen from the atmosphere. X.

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ART. XXVIII.—On Fluid Extracts.

BY HENRY THAYER, M. D.

THE want of officinal formulæ to govern the manipulations required in the manufacture of Fluid Extracts, leads to a diversity of quality and strength, as prepared by different manufacturers. As the favor shown by physicians to this class of preparations increases, this want begins to be felt, and the attention of Pharmaceutists is directed to the subject.

I propose in this paper, briefly, perhaps imperfectly, to state the theory and principles which I consider involved in this branch of Pharmacy.

I should define a Fluid Extract to be a permanent concentrated solution of the active principles of a vegetable remedy, of known standard strength. It should also be a plain extract of the plant, as much so as a solid extract, that physicians may form from them combinations to suit

their own ideas, and according to the case before them. To prepare combinations beforehand, calculated to meet all circumstances in disease, is not the business of a manufacturing pharmaceutist, but is generally claimed as the right of those who vend patent medicines. It has always appeared to me that to decide upon the therapeutic value of any remedy, was the task and privilege of the physician, and that all that is required of the manufacturer is to be able to say "Whatever virtues the raw material may possess, the same, unaltered, will be found in this Extract."

In order to produce reliable Fluid Extracts the following points are to be studied: selection of raw material, exhaustion of strength, concentration, and preservation.

The selection of raw material requires knowledge and experience, and should be made with great care. It is obvious that for a preparation of this kind, no stock except the very best should be used. We often hear it remarked, that a lot of merchandise, just received, *which is good enough for tinctures and extracts*, can be sold very low; but, unfortunately for him who purchases, the quality of the resulting preparation is generally low in proportion; therefore the quality, not the price of raw material should be the criterion. Notwithstanding the variations which exist in the medicinal strength of roots, herbs, and barks, it is a fact that they can always be found in the market, of good quality; for the rules which should govern the gathering and curing of vegetable remedies are now well understood and extensively practiced. He who by experience has acquired the requisite skill, can generally judge by the evidence of his own senses, its looks, taste and smell, and for doubtful cases, or remedies like cinchona and jalap, he has the chance to apply chemical tests and actual experiment, which will with certainty show its value. One who watches the market, and "seizes upon opportunity," will seldom fail procuring satisfactory material. I

take it to be a general law, that nothing can be worked over, without incurring some loss, some waste — that through the whole range of manufactures this is true. How important then that in this operation of making Fluid Extracts, where, with the most dextrous and careful manipulation, some loss may be incurred, the material used should be of the very best.

The present state of Pharmacy points at once to the fact, that cold percolation, with the proper menstruum, is the true way to exhaust from a plant its soluble medicinal principles. The details of this process have been so often described that any remarks from me are hardly required. Quite recently an able paper upon this subject, with illustrations of apparatus, has been published by Dr. SQUIBB, in the *Journal of Pharmacy.* It may be well, therefore, to proceed at once to the choice of a menstruum.

Our fathers in Pharmacy, when they selected the officinal diluted alcohol as a menstruum for making tinctures, chose one that is an almost universal solvent for the principles of vegetable remedies. The union of alcohol and water, in equal proportions, forms the menstruum proper for by far the larger portion of those articles from which Fluid Extracts are made. Even jalap and mandrake, the active part of which are resins, will yield to it their virtues. Although these resins, when obtained and purified, will not dissolve in this menstruum, they, in their natural state, combined with extractive, are dissolved and extracted from the root. The use of diluted alcohol for plants of a resinous nature has an advantage over the plan of percolating first with alcohol, then with water, and subsequently uniting the products. By the first, the original union is not broken, the resin and extractive are exhausted together, and in the perfected Extract this union is easily preserved: by the latter method, much precipitation occurs when the two products are mixed.

For those articles whose properties are of a volatile nature, as buchu, valerian, and cubebs, this menstruum will not answer, for this reason,—unless the menstruum be more volatile than the contained principles, the latter will be lost during evaporation; therefore, for this class of substances, alcohol or ether is required, either of which can be distilled off, leaving behind the desired principles.

As a general rule, therefore, we may say, that for articles not possessing volatile principles, diluted alcohol is the proper menstruum. This rule has exceptions, as in the case of senna, which forms a finer Extract with cold water, and cannabis Indica, which requires strong alcohol. The other class, those possessing volatile principles, should be percolated with deodorized alcohol until exhausted, then with water, and the two products separately evaporated, and mixed. The amount of the two liquids after concentration should be so arranged that, when mixed, the percentage of the menstruum in the Extract shall be just high enough to hold in solution the substances extracted by the alcohol. If so calculated, the larger part of the aqueous extract will dissolve, and the sediment which falls will possess little value.

There is little needs to be said upon the subject of evaporation. On the large scale, much is gained by using the vacuum pan, while for smaller operations the water bath must be resorted to. This subject of evaporation is ably treated in the United States Dispensatory, and I know of little to add. The degree of concentration, for Non-officinal Extracts should be governed by the following rule, which appears most applicable, viz., That each fluid ounce of Extract should represent one ounce of raw material.

The great difficulty in perfecting this new form of Extracts has been to conquer the tendency which vegetable substances possess to enter upon a state of acetous fermentation. To counteract this tendency, the officinal direc-

tions are, except for oleo-resinous and purely alcoholic Extracts, to add sugar, thus forming syrups. Experience has shown that such preparations are not permanent, and the rule will only answer for those that are made in small quantities, to be kept for a short time. Another and serious objection is that in the precipitates the lumps which form during the concentration of Hydro-alcoholic Extracts are with difficulty subdivided so as to give the Fluid Extract uniformity; and, again, however well the extractive matters are suspended, they are apt in time to settle, and form a concretion. This class of preparations should be so prepared that they will be permanent preparations, admitting of transportation to any climate, of equal value at all times and under all circumstances. Alcohol approaches most nearly the character of a permanent preservative of any substance available for this purpose, and possesses this advantage, — that when added to the evaporated liquid, the precipitates re-dissolve, and form a beautiful solution. The only objection to its use arises from its stimulating effects—an objection, however, that is but little urged, and which, except in rare cases, has little force. The proportion of alcohol requisite is seldom over 20 per cent., and the small amount of the dose of Fluid Extracts, renders its presence, therapeutically considered, of small account.

I have found an advantage in adding a small portion of sugar to those Extracts intended for internal administration, but its use is objectionable in those which are intended for external use. Placed in the still before evaporation, it protects, in some measure, from injury by heat, assists the solution of the precipitates, and disguises the disagreeable taste of many Extracts.

Fluid Extracts, prepared according to these principles, especially if evaporated *in vacuo*, retain the taste, color, and freshness of the original tincture, and certainly appear preferable to the muddy, acetous preparations which sugar

alone forms. I have now on hand samples of these preparations, made four years since. In most of them I find the transparency, taste, and flavor as perfect as when first made; in others there is a slight deposit, but in no case of very great amount. It will, however, be a safe rule, To shake all Fluid Extracts when dispensed or used.

Perfection, in the abstract signification of the term, can never be reached in any science. As we approach it, the steps grow shorter, and, with all our labor, we only attain an approximation to it. In thus briefly and hurriedly glancing at the principles which govern my manipulations, I do not seek to claim for them perfection, but hope that what I have said may call forth remarks from others, and that by a mutual interchange of ideas—a "rubbing together of understandings"—this branch of Pharmacy may arrive at an approximation to perfection.

The practical application of the principles of which I have spoken is very simple. I append a formula, as an example:

Fluid Extract of Gentian.

Take of Gentian Root, in coarse powder .	℥ xvj.
Diluted Alcohol	q. s.
Sugar	℥ iij.
Alcohol	f. ℥ iv.

Properly macerate, and percolate the root with the diluted alcohol, until its strength is exhausted. Having added the sugar to the tincture, evaporate in a water bath to twelve fluid ounces. When cold add the alcohol.

ART. XXIX.—Simple Abscess of Bone, with Enlargement.

BY WM. BRODIE, M. D.

THE subject of Abscess in the body of Bones has received but little attention from the writers on Surgery, if we may judge from the reading of their works. Why such an important condition of the osseous tissue should have been so neglected we can not surmise, especially as, judging from our own experience, it occurs so frequently. BRODIE, MAYO, and ARNOTT, have each written on the subject, but to ROKITANSKY are we most indebted for what we know of the changes which take place in the production of this disease.

In the cases under my personal observation the tibia has been the seat of the disease, and the middle of the bone the point of selection. Why this bone becomes the seat of an abscess, in preference to any other, most probably arises from its greater exposure to external agencies, and also to its greater solidity. A nucleus of pus, having once formed, is confined to its own cavity, and hence can not escape except by direct ulceration: this, from the nature of the tissue involved, is a slow and, to the patient, a painful process;—indeed, in the cases reported below, there seemed no tendency towards an external outlet. Dr. THOMAS M. MARKOE, in an able article entitled "Chronic Sinuous Abscess of Bone," in the May No. of the *New York Journal of Medicine*, has graphically and truly delineated that class of cases in which the "inflammation of the bone begins as an acute attack, passes rapidly into suppuration, and in which the abscess thus rapidly formed finds its way early to the surface." We have met with such cases as the above, and the contrast has led us to examine whether or not they are pathologically different.

In Simple Abscess there appears no tendency to either

caries or necrosis; the part affected becomes preternaturally enlarged and extremely hard, indeed, so much so as to be opened with considerable difficulty; the bone-tissue is dense in structure, and appears as though the Haversian canals had become twisted upon themselves, similar to that structure seen in wood, and particularly the "Bird's-eye Maple." The abscess cavity presents a smooth appearance, is lined with a granular membrane, and is oval in form. The periosteum is very much thickened, and closely adherent to the bone; the integument generally free to move, and does not seem implicated by its connection with the parts below.

In two of the cases, the bone was very vascular, and the membrane lining the abscess cavity bled freely, upon being pressed by the probe.

The first case of the kind came under my observation in the summer of 1854, in the person of a Mr. SEVIER, a young man of about twenty-five years of age. Until within two years of my seeing him he had followed the occupation of a sailor, and, from his own accounts, had seen many hardships and much exposure. Having, as he said, met with a "change of heart," he determined to study for the ministry, and was then prosecuting his studies. Soon after he retired to private life as a student, he was taken with a pain in the upper part of the middle third of the tibia, and the bone began to enlarge both in its long and short diameters. The pain he described as excruciating, and it seemed to him as though his leg would burst. He applied poultices and other emolient applications, but still no relief. He then consulted a surgeon in Chicago, who advised him to have his limb amputated, to which he would not assent. Blisters were then applied, which gave him some ease, together with large doses of morphia. Upon his arrival in this city, he consulted Dr. PITCHER in reference to his leg. Dr. P. diagnosed the case as one of Abscess of the Bone,

and recommended an operation for its removal, to which he readily assented. He was then put under a mild alterative treatment for a few days, when, in the presence of Drs. PITCHER and TERRY, I proceeded to the operation. Mr. S. was then put under the influence of chloroform by Dr. P., and assisted by Dr. Terry, I made a free incision down to the bone, the whole length of the tumor; I then dissected back the lateral flaps, and applied the trephine to the bone. This was found to be so hard that the instrument made scarcely any impression. It was laid aside, and the chisel used in its stead. A mortice was dug an inch in depth, when the chisel passed readily into the cavity, and about a tablespoonful of pus escaped; the opening was enlarged to the size of the abscess, and the cavity well scraped. A good deal of hemorrhage took place from the bone and the walls of the abscess. The cavity was filled with lint, and warm water dressing applied. From this time the patient felt no more pain, and rapidly recovered his health. The leg healed without any difficulty.

In this case the integument was free over the periosteum; the periosteum was much thickened and very dense; the bone was enlarged to double its size, and extremely hard. The case was interesting, as it was the first of the kind I had seen, or even heard of.

The second case was in the person of JAMES GREENE, a colored man, aged forty years, and by birth a Virginian. In 1851, he was seized with pain in the tibia in the upper part of the middle third, which he described as of a grinding character. Local applications relieved this in a measure; at the same time, the bone began to grow. The enlargement of the bone and the pain continued, the latter increasing so that he could get no rest, and his general health began to suffer in consequence. In June, 1856, he was admitted into St. Mary's Hospital, where he came under the observation of Dr. PITCHER and myself. We

found the middle of the tibia enlarged to nearly treble its natural size, but no adherence of the integument, or evidence of any inflammatory action. Deeming it a case similar to the former, we proposed an operation to him, for his relief, to which he readily assented. He said he had been under the care of several distinguished surgeons, who had tried every means that we could suggest, short of an operation. The patient was then put under the influence of chloroform; when, after making a free incision through the integument and thickened periosteum, I proceeeded with the chisel to open the bone. This was found to be a difficult matter, as it was hard as stone, and quite as brittle. An opening one-half inch wide, two inches long, and one inch deep, was made, when an arterial vessel was opened, which bled profusely; this was plugged, and the excavation continued. At the depth of one inch and a half a small abscess was found, of the size of a bean; this was removed, and the cavity formed by the operation filled with lint, and warm water dressing applied. The next day he said the pain was completely gone. The opening soon closed by granulation, and he left the hospital. In May last, I saw him again, when he informed me there had been no return of the pain, and that he was perfectly well, having increased twenty pounds in his weight.

In April of the present year I was consulted by Mr. P. O'N. of this city, who gave me his history as follows: In the spring of 1850, while learning the trade of a tanner and currier, he was seized with a pain about the middle of the leg, and extending downwards to the ankle; this continued for two months, when the bone began to swell at the place where the pain first commenced. He then consulted a physician, who ordered him to blister the swelling; this he did for three months, when the pain left, and he again resumed his work. However, there was no decrease of the swelling, which remained, but gave him no

trouble until the spring of 1851, when, on the approach of bad weather, or by over-labor, he felt pain, but not enough to deter him from his work. In the month of March, 1858, the pain again returned, with increase of the swelling. The pain did not trouble him by day, but at night was so severe as to destroy his rest. This continued with no abatement until the end of April, when I first saw him; he now could get no sleep by night, had lost his appetite, and was losing his flesh. I ordered him a cathartic, and also to apply the tincture of iodine to the swelling, which upon examination I found to embrace the lower part of the first third of the tibia and the upper part of the middle third. I considered the case as one of Abscess of the Bone, and thought, by the application of the iodine, to control the further formation of matter. The remedy gave him some relief, but in a few days the pain returned with greater severity. I then proposed to him an operation for the evacuation of the pus, to which he submitted. On the 5th of May, assisted by Drs. STEBBINS and L. H. COBB, I proceeded to the same, by making a free incision the entire length of the swelling, which was about five inches in length. The skin was loose, but the periosteum was nearly one-half inch in thickness; this I dissected back, fairly exposing the bone; with the chisel, I mortised an opening one-half inch wide and three inches in length; the bone, as in the former cases, was excessively hard. Having excavated the bone to the depth of one and one-half inches, the chisel entered the abscess cavity, when nearly two tablespoonfuls of healthy looking pus escaped; the abscess cavity was then fairly opened, and completely removed. As in the former cases, there was considerable hemorrhage from the bone. The cavity was dressed by filling with charpie, the application of a bandage, and warm water. The patient inhaled chloroform, with a total relief from all pain.

Upon the return of consciousness Mr. O'N. remarked that his old pain was entirely gone. The wound went on healing kindly, and only a few days since but a small portion of the integument remained to be closed. The cavity in the bone filled with granulations. There has been not the least return of the old pain. The patient has perfectly recovered his health, and weighs more than ever in his life before.

An interesting question naturally arises, Whether the Abscess is antecedent to or consequent upon the bony enlargement? If the former, have we any means of diagnosticating the same, as to do so would save the patient from an intensity of suffering by its immediate evacuation?

It would seem from the bony enlargement being equal on all sides, that the point of irritation and consequent inflammation would have its seat in the centre of the bone, and that during the early stages of the disease a determination of blood takes place to the part, affording a greater supply of nutrition and consequent increase of structure. From the history of the cases themselves, we are led to the opinion that the Abscess is the first to form, at the same time are free to confess to some doubt;—further investigation may solve the difficulty. In reference to the proper treatment we would advise the early opening of such enlargements; for should the same contain pus, speedy relief will be guarantied to the patient; and even should no pus be found, the free opening of the enlarged and inflamed bone would most probably prevent its formation.

We have recorded the above cases, that the observation of others may be called out, and that the disease of which we now know so little, may receive its proper share of attention.

Detroit, June, 1858.

ART. XXX. — Glycerine.

BY JNO. P. BALCH.*

[THE writer of the Lecture, after describing the history of the discovery of Glycerine, and the researches of CHEVREUL upon fixed oils and fats, proceeds as follows:]

UNTIL a somewhat recent period, Glycerine was procured chiefly in the making of lead plaster. Olive oil, litharge, and water were boiled together; the litharge and the fatty acids of the oil combined to form lead plaster, while the Glycerine was set free in the solution, holding a little oxide of lead; the solution is evaporated till reduced to a very thin syrupy consistence, sulphuretted hydrogen passed through it to separate the lead, until a precipitate ceased to be thrown down; the solution then heated to remove the excess of gas, and evaporated at a temperature of 150° F., till it ceases to lose weight. This process is still directed by WOOD and BACHE in the U. S. Dispensatory, and also the U. S. Pharmacopœia, as the most practical and most simple mode of preparation for the pharmaceutist; but, as the various uses and peculiar properties of Glycerine gradually developed themselves, endeavors were made to discover new methods to facilitate, and, consequently, reduce the great expense of its preparation. In this country it is still principally made, as the results of lead plaster, by ELLIS, DAVIDSON, and other large manufacturers of Adhesive Plaster. But to the spent lye of the soap boiler, and the waste product of the candle manufacturer, we must now look for the production of Glycerine, chemically pure, medicinally valuable, and at a comparatively cheap rate.

Glycerine is found to reduce the illuminating power of candle material. Its presence in ordinary tallows is the

* Extracts from an unpublished Lecture upon *The Characteristics and Properties of Glycerine*, delivered before the Franklin Society, at Providence, R. I.

reason why tallow candles require three times the size of a wick to give the same amount of light of stearine candles of equal dimensions; and their unpleasant smell, particularly when blown out, is also owing to its presence. Hence, it has long been a matter of great importance to candle manufacturers to get rid of this substance, to separate it from the fatty acids with which it is combined in tallows, fats, and oils, by cheap and easy processes. Glycerine has been regarded by the manufacturer, not only as worthless, but as a most deleterious substance, of which he must get rid, even at a great expense and much trouble. Hundreds of tons have been, and are, yearly thrown away. But the refuse of one year may be the most valued product of the next, and the despised Glycerine is now more valued, and sells at a higher rate than its early-prized associate, stearic acid.

Lime saponification was first employed to separate Glycerine from ordinary tallows, for the purpose of making stearic acid candles, by Messrs. Motard and Milly, in Paris, in 1833, and the process was subsequently adopted by other manufacturers. Tallow was boiled up with thin cream of lime, which caused the fat acids, by superior affinity, to forsake their Glycerine, to combine with the lime, the Glycerine dissolving in the water; this combination was then broken by means of sulphuric acid, which, seizing on the lime, set free the fat acids; these were then separated, the liquid from the solid, by means of pressure. This was an expensive process, as, to each cwt. of tallow, 14 to 16 lb. of lime, and 28 to 32 lb. of sulphuric acid, were employed, and the candle material (stearic acid), when obtained, was only in proportion of two parts to five of tallow employed. Besides being an expensive mode of preparing stearic acid, it more concerns us to know that the Glycerine so obtained was generally impure, containing especially salts of lime.

The next improvement was to separate the fat acids, by decomposing the Glycerine by the direct action of sulphuric acid at a high temperature. The raw material was treated with concentrated sulphuric acid at a temperature of 350° F. In this process, the Glycerine is decomposed, sulphurous acid is given off, and the fat is changed into a mixture of fat acids, of a very dark color, with a high melting point; this is washed, to free it from charred matter and adhering sulphuric acid, and is then transferred into a still from which the air is excluded by means of steam; distillation separates the black acidified fats into the pure fat acids, which come over in vapors, leaving the charred matters and other impurities which are not volatile, behind in the still. But this process produces considerable waste of Glycerine and a partial decomposition of the fatty acids by the sulphuric acid employed.

These improvements seem to be preparatory, merely—prompted by an endeavor to perfect the manufacture of candles, and resulting in astonishing progress, now one of the most perfect illustrations of Chemistry applied to the Arts. And to this we must continue to look as we advance. Chemistry has become an all-prevailing power in the economy of civilization, the universal handmaiden to the Arts and Sciences. There are none of these so refined, so abstract, or so practical, that it can not lend its aid. It is the grand solver of knotty problems—the umpire appealed to when difficulties beset the artist and manufacturer; and, in proportion as it has been cultivated, has the material progress of nations advanced.

We are now approaching the point where Glycerine commands proper consideration and that attention given to it which its importance would seem to demand; and, next in order, is the specification of the patent granted to Richard Albert Tilghman, of Philadelphia, U. S. A., chemist, for improvements in treating fatty and oily mat-

ters, chiefly applicable to the manufacture of Soap, Candles, and Glycerine, dated January 9th, 1854. He says:

"The first part of my invention consists in a mode or modes of obtaining free fat acids and solution of Glycerine from those fatty or oily bodies of animal or vegetable origin which contain Glycerine as their base.

"For this purpose, I subject these fatty or oily bodies to the action of water at a high temperature, so as to cause the elements of those bodies to combine with water, and to obtain, at the same time, free fat acids and a solution of Glycerine. I mix the raw material with from a third to a half of its bulk of water, and the mixture may be placed in any convenient vessel in which it can be subjected to the action of heat, at a temperature about the same as that of melting lead, until the operation is complete; the vessel must be closed, *so that the requisite amount of pressure may be applied to prevent the conversion of the water into steam.* The process may be performed more rapidly and also continuously, by causing the mixture of fatty matter and water to pass through a tube, or continuous channel, heated to the temperature already mentioned (about 612° F.), the requisite *pressure for preventing the conversion of the water into steam being applied during the process.*"

He here gives a drawing of the apparatus for performing this process speedily and continuously. This description of this apparatus is more in detail than is necessary for our purpose: it is, simply, a round vessel provided with a perforated disc or piston for forming an emulsion or intimate mechanical mixture of the fat and water; next is a force pump, like those in common use for hydraulic presses, which drives the mixture through a long coil of very strong iron tube, about one inch external and half inch internal diameter (such as are in use for hot water apparatus), which, being placed in a furnace, is heated to about the

temperature of melted lead. This iron tube is coiled backwards and forwards, so as to arrange a considerable length of tube in a moderate space, and to ensure considerable uniformity of temperature. The mixture, which has become converted into free fat acids and solution of Glycerine, passes on through another coiled tube immersed in water, by which it is cooled down from its high temperature to below 212° F., after which it makes its escape into the receiving vessel. The hot mixture of fat acids and solution of Glycerine are separated from each other by subsidence; the fat acids may then be washed with water, and the solution of Glycerine concentrated and purified by the usual means. The fat acids thus produced may, like those obtained by other methods, be used in the manufacture of candles or soap. We now have a solution of Glycerine, free from lead or lime, but still requiring expensive apparatus to ensure the pressure, indispensable, according to Mr. Tilghman, *to prevent the conversion of the water into steam.*

We now come to the latest improvement and practical success in the manufacture of pure Glycerine.

For this we are indebted to Mr. G. F. Wilson, the managing director of Price & Co.'s Patent Candle Company, London. This is the most colossal establishment in this branch of chemical manufacture in the world, possessed of five distinct manufactories (one of which covers three acres of ground), besides plantations of cocoanut trees in Ceylon, of a capital but little short of half a million sterling and employing, notwithstanding the best arrangement for economising labor, eight hundred work people. It is not surprising that they divide £40,000 to £50,000 in profit annually. The reporter states that, at the time he visited the works, they were using one hundred and thirty tons of raw material per week.

Experimenting on the ingenious process of Mr. Tilgh-

MAN, Messrs. PRICE & Co. found that the same result could be equally well obtained by simply blowing steam, at a high temperature, through the fat. Mr. WILSON says: "In our new process, the only chemical agents employed for decomposing the neutral fat and separating its Glycerine, are steam and heat, and the only agents used in purifying the Glycerine thus obtained are heat and steam."

Mr. CHEVREUL lately received a specimen of Glycerine, obtained by their new process, with expression of extreme pleasure. Nearly half a century has passed since the earliest of these beautiful researches into the constitution of fatty bodies, in the course of which he discovered the function of Glycerine, yet this specimen found him still lecturing to his class.

In this connection, it is at least curious to refer to the great care evinced and expensive apparatus devised by Mr. TILGHMAN, in his patent, to avoid the very desideratum upon which the success of Messrs. PRICE & Co. is solely based.

Steam, at a temperature of 550° to 600° F., is blown into a distillatory apparatus, containing a quantity of the rawmaterial. The fatty acids take up their equivalents of water, and the Glycerine takes up its equivalent; they then distill over together. In the receivers, the condensed Glycerine, from its higher specific gravity, sinks below the fat acids. Sufficient steam must be supplied, and the temperature regulated, otherwise the elements of the Glycerine do not take up their equivalents of water, and acroleine is evolved—a body of a very different character, an acrid, eye-inflaming vapor, appreciated only by those who have had the misfortune of an experimental acquaintance with it.

From the nature of the agents employed in decomposing the fats or oils, the Glycerine obtained by this process is exceedingly pure, and well fitted for medicinal use. It is free from the lead and earthy salts, and bad smelling

volatile fatty acids, present, even after the usual processes of refining, in ordinary Glycerine obtained from lime saponification, and in the ordinary process of lead-plaster making.

DR. LINDSAY says, in his experimental notes on Glycerine, to which we are largely indebted for other matter: "The only Glycerine which I can recommend, from personal experience, as comparatively pure and absolutely safe, is the pure concentrated Glycerine of PRICE'S Candle Company."

In reference to candles, I find the following in *London Pharmaceutical Journal:* "According to established custom, wax candles only are held to be orthodox in Roman Catholic cathedrals and chapels. Some makers of stearine candles, having endeavored to introduce their material, an objection was taken against the innovation, and the question was referred to the Pope. There is more of accommodating good sense in his decision than he usually has credit for in these Know Nothing times.

"*Pope*—Is there not a little stearine in the wax candles? *Answer*—Yes. *Pope*—May there not be a little wax in the stearine candles? *Answer*—Yes. *Pope*—There we have wax and stearine—stearine and wax: I see very little difference."

[We regret that want of space compels us to omit the rest of this interesting paper, in which is described, at length, the chemical and therapeutical characteristics of Glycerine.—EDS.]

ART. XXXI.—Report of Cases in Obstetric Practice.

BY R. E. HAUGHTON, M. D.

CASE I.—Mrs. W. was confined with her first child in 1854. I was sent for, in consultation with another physician. He found, upon examination, a right-shoulder presentation, the

arm protruding. He could not change the position of the child, owing to unusually severe contractions of the womb, which were continuous and resisted all effort. Chloroform was administered, to perfect anæsthesia, without any relaxation of the uterine structure. Suffering still very severe, and the patient growing weak and restless. We resolved to disarticulate at the shoulder joint, and exvicerate, so as to deliver as soon as possible, and thereby relieve the woman from her perilous condition. But Nature is bountiful in her provisions, and as the knife made the first incision, a powerful contraction came on, and spontaneous evolution took place, completing the delivery with the same pain.

But what did we get. A child stillborn, with one inferior extremity absent from the hip joint, the anterior parietes of the abdomen deficient, the organs all exposed *in situ*, the skin terminating abruptly, and the peritoneal coat terminating in a free border about two inches below the termination of the skin at the lower portion of the stomach. The placenta was lying in contact with the other viscera—no cord of the usual length, but a very short connection—a case of arrested development, from what cause we have no definite idea, as the patient had passed the term as well as women generally do, and of good physical and constitutional health.

Quære: Why did not chloroform relax the muscular system, and thereby aid us in the treatment? Can some of our medical friends tell us the cause of this result, when the patient was so unconscious as not to hear or feel, and yet the powerful contraction was not in the least arrested?

Case II.—Mrs. A. was confined on the 21st of April last with her first child. A woman of delicate health and physical organization, married rather late in life, had been subject to malarious fevers, but had not suffered from that cause since last fall. The presentation natural, the pains

light, not much progress for the first twenty-four hours. Pains became more severe, dilatation about half completed, and then no progress for about six hours. Woman becoming very tired, and I began to think what could be the cause of delay. Capacity good, and apparently nothing to hinder the termination of labor very soon—still no progress. I commenced the use of Tilden's Fluid Extract of Ergot, to increase the pains, as they were undoubtedly inefficient, and the mouth of the womb dilating and dilatable. During this time an examination over the uterus detected two prominences of considerable size, the one somewhat larger than the other, but I could not tell what one could be; the other I was satisfied was the projection of the child's body, but the first was softer. Labor now become severe, with forcing pain and slight progress. Continued to give Ergot in one-half teaspoonful doses, as the pain would become intermittent, and pass away, and the patient would go to sleep. I got the action of the Ergot, and the labor was completed, being one of the hardest, with a natural presentation, I have ever seen.

But now the cause of the severity and prolongation of the labor was revealed. The child had *Spina Bifida* about the lower portion of the dorsal vertebra. The size of the tumor and its shape were a little peculiar, being an oblate spheroid, and measuring in its longest circumference ten inches, and eight inches in its shortest, with an attachment of about an inch across. It was full of a clear limpid fluid, so much so that light passed through it, and it also had innumerable little blood-vessels ramifying through the membrane which was its investment. The question arises here, What is the character, structure, and to what class of membranes does this one belong?

Again, there was the distortion of the feet known as *Talipes Varus*, co-existing, adding another to those deformities mentioned by some writer in our journals as existing

together. Why *Talipes* and *Spina Bifida* come together, or what relation there is between such difficulties, I do not quite see, but it is even true that they co-exist too often to deny.

Again, this child had a deformed knee, resembling in shape an elbow joint, the prominence looking like that of the olecranon process at the elbow joint, and pointing upwards, inwards, and forwards, thus throwing the lower leg outward at quite an angle.

The child lived three days, and died, the face having ulcerated and discharged its contents. Died quietly, and without convulsions. The mother also died, two hours later, the same day, with Acute Metritis, the victim of inflammation caused by a protracted and unusually severe labor.

Case III.—Mrs. P., in labor with her first child last October, was a large, plethoric, leuco-phlegmatic patient. Had been in labor one night, and till nine o'clock the next day, when puerperal convulsions set in, she having arrived at the second stage of labor. I was sent for at ten o'clock in the morning, in consultation with her physician (who had been with her all the time), with directions to bring my forceps. I hastened to the patient, and when I arrived, she had her fifth convulsion; labor was suspended, and had been several hours. The head was presenting at the inferior strait, in proper position. I applied the forceps, and in fifteen minutes delivered a living, healthy child. This did not stop the convulsions, as was hoped, and we bled her, which had also been done a day or two, in small quantity, before her sickness. I left, to visit my regular cases, remarking that if she had more of such attacks, I would bleed her freely, and open a vein in both arms. Convulsions recurred every sixty minutes through the day, and no more blood was drawn. I saw her, in consultation

again, in the evening, with Dr. MITCHELL (her physician), Dr. ———, and Dr. BUTLER; and the consultation advised free bleeding from a large orifice, which was done, and she soon roused up, and spoke to some of her friends. This was about six o'clock in the evening of the same day of her delivery. No more convulsions, recovered, and nurses her child.

Chloroform was used with but little effect, in this case, except as a paliative.

I have this to say in puerperal convulsions, having seen several, that venesection is our sheet-anchor, and all other means will avail nothing, if this is left undone.

CASE IV.—*Placenta Prævia.* Mrs. H., attacked with hemorrhage, at the seventh month of gestation. Examination revealed a placenta prævia, nearly central. No dilatation, sufficient to justify a resort to any active course; yet the hemorrhage continued, at intervals, by gushes, as the pain produced by contraction, gave evidence that the placenta was being detached, and the woman must be delivered as soon as possible. This was my judgment, and a consultation was called, which decided to effect dilatation by the hand, turn, and deliver by the feet, as the presentation was a vertex. The woman was feeble, owing to considerable loss of blood, at intervals of some weeks, before I was called, hence time was an object, and none to be lost. Dilatation was effected, and turning completed. The hand detached the placenta, turned aside the portion thus detached, and the delivery effected as far as the head. By this time the woman was nearly or quite pulseless, and there was great resistance to delivery of the head. She continued to sink, though active stimulation was used, as well as pressure upon the abdominal æorta, to prevent the hemorrhage in some degree and rally the failing vital powers. The head was delivered, and the woman died within an hour, after some feeble efforts at reaction.

Case V.—Mrs. G., of Henry County, was confined. She was of Irish extraction, heavy set, short stature, been in labor three days. Her physician could not assist her, because she would not allow him to do so. She grew worse, and a consultation was held, and, as Irish folks do, they sent for three counselors at once. I was one of them, and we all arrived about the same time. She was as determined as before; she would not submit; and, after parleying and talking to her long enough, were about to go home, when she concluded discretion was the better part of valor. She was not going to die—oh, no!—but she did like to have her own way! The oldest physician first examined the case, and then in succession, and we found what we all declared to be a case of impacted head, requiring forceps for delivery. A pair of short forceps were applied by one of the elder physicians, but because he made a wrong diagnosis of the position of the head, he applied the forceps across the anterior portion of the head and face—a grave error, which, if the child had been living, would have proved it. I pointed out the proper position, but, being much younger, I watched him proceed, and to his astonishment the forceps were wrongly applied. Let not rashness induce a man to commit an error! The woman was in time delivered, and did well.

Richmond, May 28th, 1858.

ART. XXXII.—Meteorological Register for the Month of July, 1858.

BY L. S. HORTON, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer.			Hygrometer.			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	29·00	29·00	29·00	79	91	76	68	71	62	·537	·489	·369	·54	·33	·41	S.E. 1	S. 1	S. 2	2, a.m.	5.30 p.m.	·97
2	29·02	29·01	29·00	81	92	80	67	74	68	·474	·596	·443	·44	·39	·35	S.W. 1	S.W. 1	S.W. 2	4.30 p.m.	3.10 p.m.	
3	29·00	29·01	29·01	80	91	72	66	76	69	·452	·694	·668	·44	·47	·85	S.E. 3	S.W. 1	S.W. 1			·67
4	29·02	29·01	29·01	82	87	67	70	68	64	·572	·430	·556	·52	·33	·84	S.W. 1	S.E. 2	E. 1			
5	29·01	29·15	29·20	70	84	74	62	70	66	·449	·545	·532	·61	·46	·63	E. 1	E. 2	E. 2			
6	29·18	29·10	29·10	69	94	80	60	82	72	·398	·929	·677	·56	·58	·66	N.E. 2	E. 2	N.E. 1			
7	29·10	29·15	29·10	79	95	84	67	80	72	·501	·820	·623	·50	·49	·53	S.E. 1	S.W. 2	S. 1			
8	29·10	29·12	29·15	85	94	82	78	81	71	·863	·880	·610	·71	·55	·55	S.W. 2	S.W. 2	S. 1			
9	29·20	29·15	29·12	84	96	82	74	74	71	·704	·542	·610	·60	·31	·55	S.E. 1	S.E. 1	S. 1			
10	29·10	29·05	29·00	78	92	76	66	81	70	·478	·908	·652	·49	·60	·72	S.W. 1	S.W. 1	S.W. 2	5, p.m.		
11	28·88	28·85	28·50	66	82	64	60	76	58	·438	·816	·403	·68	·74	·67	S.W. 1	S.W. 1	E. 1		11.30 p.m.	·62
12	28·89	28·90	28·82	63	74	71	55	63	61	·327	·429	·403	·56	·51	·53	W. 2	S.E. 2	S.E. 1			
13	28·95	28·96	28·98	65	76	72	56	68	64	·330	·577	·489	·53	·64	·62	N. 1	S.E. 1	S.W. 1			
14	29·00	29·13	29·15	66	88	74	58	71	66	·403	·529	·532	·67	·40	·63	E. 1	S.E. 1	S.W. 2			
15	29·12	29·12	29·10	76	88	74	68	72	68	·577	·569	·604	·64	·43	·72	S.E. 1	S.W. 2	S.E. 1			
16	29·10	29·08	29·00	74	89	74	64	74	70	·462	·637	·679	·55	·46	·81	S.E. 1	S.E. 1	S.W. 2	6.30 p.m.		
17	28·90	29·00	29·10	74	84	69	68	71	60	·604	·583	·398	·72	·50	·56	E. 1	E. 2	E. 1		10.15 a.m.	·42
18	29·01	29·20	29·20	66	81	69	60	70	60	·438	·585	·398	·68	·55	·56	S.E. 1	S.E. 1	E. 2			
19	29·20	29·21	29·16	71	78	67	62	70	61	·436	·625	·457	·57	·65	·69	E. 1	E. 2	S.E. 1			
20	29·10	29·12	29·12	68	82	68	60	70	60	·411	·572	·411	·60	·52	·60	S.E. 1	S.E. 1	S.W. 1			
21	29·12	29·00	28·98	69	92	71	60	80	58	·398	·860	·310	·56	·57	·40	S.W. 1	S.W. 1	S.W. 1			
22	28·98	29·00	29·10	68	82	65	61	70	60	·443	·572	·451	·64	·52	·73	S.E. 1	S.E. 1	E. 1			
23	29·15	29·10	29·01	66	78	64	58	71	58	·376	·644	·403	·58	·69	·67	S.E. 2	S.E. 2	S.E. 1			
24	29·05	29·10	29·15	57	76	67	48	64	60	·217	·436	·425	·46	·48	·64	W. 2	S.E. 2	S.E. 1			
25	29·12	29·13	29·15	64	78	72	58	66	60	·403	·478	·358	·67	·49	·45	S.E. 1	S.E. 1	S.E. 1			
26	29·12	29·10	29·05	74	88	72	65	70	62	·497	·491	·422	·59	·37	·53	S.E. 1	S.E. 2	S.W. 1			
27	29·00	29·05	29·10	74	94	72	60	81	61	·331	·880	·390	·39	·55	·49	S.W. 1	S.W. 2	S.W. 2			
28	29·12	29·10	28·92	76	92	74	62	78	62	·369	·768	·396	·41	·51	·47	S.E. 2	S.E. 1	S.W. 2			
29	29·00	29·00	28·90	74	88	70	67	69	67	·568	·453	·622	·67	·34	·84	S.W. 2	S.W. 2	S.W. 2	10.30 p.m.	2 a.m.	·57
30	28·92	28·93	28·88	75	87	72	60	71	64	·318	·543	·789	·36	·42	·62	S.W. 2	S.W. 3	S.W. 2	10.45 a.m.	4, a.m.	·45
31	28·92	28·98	28·82	68	82	72	62	71	68	·476	·610	·631	·69	·55	·80	S.W. 1	S.W. 1	S.W. 1	9, a.m.	11.30 a.m.	·53

Bibliographical Record.

HUMAN HISTOLOGY IN ITS RELATIONS TO DESCRIPTIVE ANATOMY, PHYSIOLOGY, AND PATHOLOGY. With 434 Illustrations on Wood. By E. R. PEASLEE, A. M., M. D., Professor of Physiology and Pathology in the New York Medical College; of Anatomy in Dartmouth College; and of Surgery in the Medical School of Maine; Member of the American Medical Association; of the New York Academy of Medicine; of the New York Pathological Society; of the Society of Statistical Medicine, etc. "*Maxime in minimis.*" Philadelphia: Blanchard & Lea. 1857. Pp. 616.

WE learn from the preface of the above work, that the plan upon which it is constructed was formed some nine years since, and that though, during the period which has since elapsed, several similar works have appeared in England, France, and Germany, no one of them has included its entire aim, viz.,—

"*I. To give a connected view of the simple chemical elements, of the immediate principles, the simple structural elements, and the proper tissues, entering into the composition of the fluids and the solids of the human body.*

"*II. To associate with the structural elements and the tissues, their functions while in health, and the changes they undergo in disease.*"

In pursuance of this plan, our author divides his work into two parts: the first, *Stœchiology*, embracing an account of "simple elements" and "immediate principles"; the second, *Histology* proper. The subdivisions and groups which are made under the two principal parts are highly

philosophical; and those which occur in the first part will prove of the utmost value to the student. Another advantage to the English student consists in the adoption of fractions of an inch instead of the millimetre, in giving dimensions. It is the first American work on this subject which has appeared, and we are proud to say that in some respects it is superior to any with which we are acquainted.

We earnestly and confidently recommend it to the American practitioner and student. G.

THE PRINCIPLES AND PRACTICE OF OBSTETRICS. Including the Treatment of Chronic Inflammation of the Uterus, considered as a Frequent Cause of Abortion. By HENRY MILLER, M. D., Professor of Obstetric Medicine in the Medical Department of the University of Louisville. Published by Blanchard & Lea, Philadelphia.

If it were proper to dismiss a work of this magnitude by a single remark, I should do so by stating that it is the most valuable contribution to the art and the science of Obstetrics which the American press has recently sent forth. The work is an octavo of six hundred pages, handsomely printed, and fully illustrated, both in the anatomical and more immediately practical departments of the subject to which it is devoted. The style of the author is unambitious and simple, yet marked by perspicuity and good taste. I have read most of this volume with the thermometer above 90°, and have found very little to object to, even with the predisposition to be querulous, which such a temperature might be supposed to induce. As this is intended for a Publisher's notice instead of a critical review, I do not propose to bring into view the doctrines inculcated by the learned author, for the purpose of analysing his opinions, or finding objections to their practical application.

I would especially call the attention of the young practitioner to this work, for the sake of the author's re-

marks on the subject of "Touch," his chapters on abortion, the causes and treatment of flooding, the use of the forceps, and the management of the placenta.

It is, in fact, a worthy successor to BLUNDELL, DEWEES, and VELPEAU, and a fit companion of MEIGS, CHURCHILL, and SIMPSON. Z. P.

A MANUAL OF MEDICAL DIAGNOSIS: Being an Analysis of the Signs and Symptoms of Disease. By A. W. BARCLAY, M. D., etc. Philadelphia: Blanchard & Lea. 1858.

WE hail the appearance of this valuable book, coming to us in its present exceedingly neat style, as an important acquisition to Medical Literature. It is a work of high merit, both from the vast importance of the subject upon which it treats, and also from the real ability displayed in its elaboration.

We need not present arguments to show the importance of correct diagnosis, in its relation either to the safety of the patient, or to the reputation and self-esteem of the physician. All admit the fact. But, alas! too many students, neglecting careful attention to this special department of medical inquiry, never form those habits of close and minute investigation of diagnostic signs so necessary to the truly-accomplished physician. Hence, also, many practitioners too often pronounce a hasty diagnosis, in accordance with some hasty opinion or pre-conceived notion, to which the disease and all its symptoms are made to bend. But this is not the part of a high-minded physician; it belongs to impotent quackery. May this effort of Dr. BARCLAY in this direction, where even the Medical Press has been far too silent, instill into medical men higher views of diagnosis, and nobler efforts to perfect themselves therein!

The author has brought out, in the volume before us, lessons derived from years of ample experience and faithful

research. As you follow him, chapter after chapter, you feel that he speaks with authority, as one who knows what he writes. He is clear, yet concise; he does not lead the reader through pages of curious theory on doubtful questions, but gives him the facts at once. He has nobly divested himself of pre-conceived opinions of his own, leaving diseases and their symptoms free to tell their own story.

While we say thus much of this book as a whole, we would especially commend the chapter devoted to the diseases of the brain and chest. The peculiar intricacies which surround diseases of the brain, rendering their special diagnosis often so very difficult, are well known. But the author here also is fully equal to his task—drawing clear deductions from his large experience, and arranging them with admirable skill. Not less happy is he when he speaks of the chest and its diseases. While he gives to the student clear ideas of the diagnostic marks which distinguish these, he does not perplex him with those "more delicate modifications" of physical sounds, which to the student are "only productive of confusion." Neither does he introduce any names of the "voice and breath sounds" which imply a theory as to their cause.

In conclusion, let us bespeak for this volume that attention of every student of our art, which it so richly deserves—that place in every medical library, which it can so well adorn. C. H. B.

CONTRIBUTIONS TO OPERATIVE SURGERY AND SURGICAL PATHOLOGY. By J. M. Carnochan, Professor of Surgery in the New York Medical College, Surgeon-in-chief to the State Emigrant's Hospital, etc. With illustrations drawn from nature. Philadelphia: Lindsay & Blakistone. 1858.

This is a quarto work, issued quarterly, in 10 Nos. The contents of the first number, which is before us, contains the author's cases and his remarks upon the subjects

of amputation of the entire lower jaw, and the treatment of elephantiasis of the leg by ligature of the femoral artery. The illustrations are in lithograph, and the work will prove of interest to the Surgical practitioner.

We shall take pleasure in noticing the several Nos. as they appear. G.

ELEMENTS OF INORGANIC CHEMISTRY. Including the Applications of the Science in the Arts. By THOMAS GRAHAM, F. R. S. L. and E. Second American from the Second Revised and Enlarged London Edition. Complete in one volume, with 233 Illustrations in Wood. 8vo., pp. 850. Published by Blanchard & Lea, Philadelphia. 1858.

THE reputation of the author of this work as an English chemist, the well known character of its American publishers, and the reception of the first edition, render it unnecessary to say aught in its favor to recommend it to the student of Chemistry and the man of science, as it now appears a second time, enlarged and greatly improved.

Although we have not given it a thorough perusal, yet we feel justified in saying even from our rather hasty examination, that the work is all it pretends to be,—a full exponent of the present condition of the inorganic department of Chemistry.

CONSTITUTION AND BY-LAWS OF THE ST. LOUIS PHARMACEUTICAL ASSOCIATION.

In addition to the Constitution and By-Laws, the pamphlet contains the Rules of Order and the Code of Ethics.

Success attend the Association! F. S.

Prof. PAYNE'S *Institutes of Medicine* was not received until too late for notice this month. It will receive attention in the next No.

Editorial Department.

The Senior Editor of the Chicago Medical Journal feeling badly.

Our neighbor of the above journal attended the late meeting of the American Medical Association at Washington, and did not at all like the way in which the business of that Body was done. According to his judgment, or *feelings*, every thing about the meeting, except the social part, was entirely wrong. He says "in a business and scientific aspect the meeting was decidedly the most barren and unprofitable we [he] ever attended." The President was "totally ignorant of parliamentary rules—much of the business was done in a manner so irregular and hesitating as to mar its interest"—time was squandered on unimportant and irrelevant matters—but two Reports were read, and both of them objectionable—that Dr. PETER PARKER [the distinguished missionary physician to China] was allowed a whole hour to display a collection of urinary calculi taken by him from the inhabitants of the celestial empire! [a most rare collection, and which some men, we doubt not, would have been willing to have gone hundreds of miles to see] while members of Special Committees were not allowed to read their Reports [though those Reports were to be published, and sent in the Transactions to each member, when all could read them at their leisure], all of

plan proposed in 1856, and successfully opposed by Dr. Z. PITCHER, Chairman of the Committee of Arrangements for that year, making radical changes in the mode of conducting business, should be adopted.

If really the Association has sunk so low as this picture would seem to represent, the American Profession have occasion to put on sackcloth and ashes; for there can be no doubt that upon its success, its respectability, and power, depend, in a great degree, the honor and improvement of the Profession. But is this a truthful picture? And if not, What are the causes which have led to such painting from the man who has been in the habit of considering himself as the Father of the Association? As to the general truthfulness of the picture, judging from the very large number of the most eminent men of the country who were in attendance, and also from the expressions which have come up from almost all the journals in every part of the land, we must conclude that the Editor has looked at the subject through a distorted medium. Respecting one feature of the proceedings strongly disparaged by him, — that in reference to the McCLINTOCK affair — the journals from the other side of the Atlantic, and those of other languages, are coming to us laden with their commendations of the high stand taken. But the American Medical Association, its late meeting at Washington, and its forthcoming volume of Transactions need no defense from us. We shall proffer none, except to point to that Body and its doings, and to the volume when it appears, asking a candid public to judge for themselves, and apply the contradiction and rebuke, which they certainly will.

Some of the reasons why the Editor of the *Chicago Journal* received so unfavorable an impression of the meeting at Washington may be understood when it is stated, that, in the early years of the Association — in its infancy, — the

which very bad things have convinced the Editor that his reputed Father assumed a large degree of parental control over its affairs, but that since a more mature age has been attained by the offspring, and its independence of that attempted control has been manifested, the undutiful child is denounced, and the parental rod applied. Not to specify any possible high expectations of our neighbor unrealized in regard to the Washington meeting, it can not be improper to state what is intimated in the article under notice, that the author went to the meeting with a paper in his pocket,—the continuance of his Report on *Lactation, and its Relations to Pregnancy, etc.*—and that, because he did not get an opportunity to read it, as he had read before in full the other installments—or at least because the proceedings of the meeting were not conducted according to his fancy—he carried the paper away with him, and broke up the published series of his observations, not allowing this continuation to be published in the Transactions!

That in the excitement of the time, an irritable man should commit such an act is not so surprising, but that, after months had passed by, allusion should be made to it in the statement that the "mode of doing business will aid the treasury of the Association by diminishing the amount of matter for the forthcoming volume of Transactions," by a man of sufficient dignity to be considered the Father of the Association, is altogether surprising. This conduct more resembles that observed in peevish children, than in staid parents.

We have felt contrained to say thus much in explanation of the course pursued by our Chicago neighbor, lest the disparaging statements, coming from so respectable a source, should wound the reputation of the Association, and weaken its hold upon the regards of the Profession. This we think would be a public calamity, which Medical Journalists should attempt to avert by all honorable means,

though in doing so personal feelings may be irritated, and the danger of vituperative rejoinders may be incurred.

A. B. P.

Medical Education.

We transfer the following article, from the *London Lancet* of July 10th, to our editorial pages, because of its bearing upon a subject on which the Profession at present feels the deepest interest, and which we have pretty fully discussed heretofore. It shows the relative estimate which our British brethren place upon theoretical and clinical teaching. G.

"In default of immediately obtaining a satisfactory Medical Enactment from the Legislature, few things are better worthy of acceptance, in relation to the economy of our Profession and Medical Education, than a duly-considered revision of our mode of teaching and the course of compulsory study enforced by the corporate bodies. Such a revision has just been concluded by the 'Hall and College,' and it will, after the 1st of October next, become law both for student and teacher. Unlike some former revisions of the educational programme, the present one has resulted in the diminution rather than in the increase of the number of lectures to be attended. But, on the other hand, it judiciously enforces more attention to practical and clinical pursuits in lieu of that bestowed upon some of the overcharged systematic and theoretic courses. The College not only diminishes the number of the latter, but suggests 'that in many, perhaps in the majority of instances, the number of lectures in the respective courses may, with much advantage, be diminished also.' However important lectures may be as giving a proper direction to the minds of students, it is found that this mode of instruction will do little towards making skillful and accomplished practitioners without ample opportunities for the study of anatomy in the dissecting-room, and of surgery in the wards of the hospital.

"'The benefits which former Councils seem to have anticipated as the result of more numerous and more extended courses of lectures have certainly not been realized, and it is hoped that the change in the opposite direction will enable the students not only to devote more time to the dissecting-room and to the hospital, but also to have their minds more at leisure to think and to reason on what they see than is the case at present.'

"During the eight years which have elapsed since the Court of Examiners of the Society of Apothecaries issued its previous regulations, a

new light has been slowly breaking in upon us. We have become convinced that practical medicine requires to be taught in other ways than by enforcing attendance upon oral and theoretic prelusions, and leaving the conglomerated result to be moulded into shape and sharpened to a point by a three-months' revolution around the stone of the 'grinder.' It has struck us that it is one thing to have sleepily listened to the statement that there is 'crepitation' to be heard in pneumonia, and quite another thing for the student to have heard that 'crepitation' for himself. We have become convinced that a sharp student may talk about 'cirrhosis of the liver,' and not know such morbid condition when he witnesses it; that he may repeat the tests for albumen and sugar in the urine, and yet make a sad mess of it when he attempts to demonstrate their presence; or that he may know the origins and insertions of the small muscles of the back, and be unable to cut down upon the femoral or brachial arteries. Yet such student has afterwards to *practice* Medicine and Surgery, and not simply to talk about them. Rightly, then, has the Court of Apothecaries increased the time required by the student for personal investigation in the wards of the hospital, dissecting-room, dead-house, and in the chemical laboratory. One of the most prominent, and, to us, most satisfactory changes, occurs in the department of the 'Practice of Physic.' Here, instead of a second systematic course being necessary, it is displaced by a distinct and continuous series (not less than seventy-five in number) of clinical lectures, to be founded upon the cases actually under treatment in the hospital where such lectures are delivered. For the future, then, there can be no shirking of an important duty, either on the part of physician or pupil. If the senior medical officers will not perform it, they must let the junior men step in and provide them with the necessary cases. An occasional 'clinical,' given in a haphazard or random style, must be for the future not *the rule*, but *the exception;* on the other hand, the pupil must pay far more attention to a vital branch of his studies than he has hitherto been in the habit of doing. *Medicine*, as distinct from *Surgery*, has been greatly neglected by the student; it is 'caviare' to all, except to the clinical clerks and a few of the older and more thinking of the men. With these exceptions, all run after operations, the examination of strange tumors, and out-of-the-way accidents. The surgical visit and the 'operation theatre' constitute, in the eyes of the novitiate the great attraction of the hospital career. The 'medical clinic' is almost neglected, often entirely so by some pupils; there are, we believe, hundreds admitted to examination who have never gone round the wards with a physician, nor attended a medical clinical lecture.

"The new regulation has, then, these two advantages: in the first place, it tends to endow with more vitality that which is usually considered a 'dry subject;' and in the second place, it will enforce some slight attention —to say the least—to be paid to Practical Medicine. The mass of students will have to practice far more in Medicine than in Surgery; they will not

have to decide upon the nature of pathologic and anatomic curiosities, but will have to treat the common ailments and daily sickness which everywhere occur. That which best fits them for such constant, yet important duty, is, they may depend upon it, most worthy of their attention. Clinical lectures upon Medicine must for the future be systematically attended; but it should be remembered that unless the visits of the physicians round the wards are followed too, such lectures will prove next to valueless. Students complain that there is 'nothing to see' in the medical cases, and that they can not obtain in the visit much insight into the examples before them. There is error and fallacy in the statement. There is much to observe in a physician's patient. The physiognomy of disease is wonderfully impressive, as implied in the external appearance and facial aspect of a sick man. The clue to its interpretation must of course be obtained, but this can never be got by inobservancy and idleness. Once seized however, at each bedside where the physician tarries the student will find opened for him a new page for his perusal. But to suppose that much insight can be obtained into the history and nature of cases by a single or by a few occasional broken visits is an absurd expectation. The visits must be continuously and enquiringly made. Daily changes will thus become often easily apparent, and the student will soon cease to say 'there is nothing to see in the physician's cases.' Nor should the pupil rest there; for the out-patients' room, presided over by the assistant officers, claims an equal attention. Here he will constantly see a description of maladies which will form a large majority of that which he will meet with when he himself commences practice, particularly as relates to infancy and childhood. In connexion with this latter subject, we may observe that attendance upon 'Midwifery and Diseases of Women and Children' is now not only postponed from the first to the second summer session, but that a personal and practical assistance at not less than twenty cases of labor is substituted for the second course of systematic lectures upon the subject of obstetrics. In both respects great improvement, we think, is effected. The first summer session was a too early period for attendance upon the course of midwifery; and the direct supervision of twenty cases of childbirth will be of much greater service to the student than a second three-month's oral discourse. The change in question has the further advantage, too, of allowing practical chemistry to be studied at an earlier period than before. The stress laid upon 'Demonstrations on Morbid Anatomy' is to be greatly approved of, as also their substitution during the third winter session for 'Dissections,' of which two courses, as also of 'Anatomy,' have already been attended. Previously, 'Anatomy,' 'Anatomical Demonstrations,' and 'Dissections' were kept distinct, and obliged to be attended separately. Now, we read only of 'Anatomy' and 'Dissections,' and of these less than before. It will thus be seen that laudable endeavors have been made by the Company of Apothecaries to practically displace 'the system called grinding,' by necessitating the student to cultivate observation, acquire

practical knowledge and bedside experience, instead of pretending for three or four years to go to lectures, too often constantly neglected, and finally depending upon an embargoed memory, sharpened for a few months at some professional tutorial whetstone.

"An important alteration, made in concurrence with the Council of the College of Surgeons, is that of instituting two examinations instead of one: the first, on the termination of the second winter session; and the second, upon the completion of the whole educational curriculum. In the earlier examination are included Latin, Anatomy, Physiology, General and Practical Chemistry, Botany, and Materia Medica; in the later one, Practice of Medicine and Pathology, Midwifery, &c., Forensic Medicine, and Toxicology. The junior preliminary examination on classics and mathematics will also be compulsory on all gentlemen commencing their apprenticeship on or after the 1st of August, 1858. Not less a sign of improvement in the new revision is the stress which the Court of Examiners lay upon the true intent of the five years' apprenticeship required by their Body. It again reiterates the assurance that it has 'always regarded the term of apprenticeship required by the Act of Parliament of 1815 as a period of study to be employed..... not merely in dispensing medicines,' and that it does 'not require a servitude of five years to practical pharmacy' alone. In conclusion, the Court trusts that these and other alterations will not only work to the benefit of the student, but that 'the zealous efforts of private teachers, in association with lectures, demonstrations, and hospital practice, will be increasingly appreciated.'"

The Michigan State Asylum for the Insane.

The editorial article of our colleague, on this subject, in the July No. has awakened attention in various quarters, and we take pleasure in placing before our readers some facts respecting the Institution, from a source no less authentic than the able Medical Superintendent of the Asylum, whose resignation of his position in the New York State Asylum at Utica has recently been accepted, and who will soon be ready to devote himself exclusively to his new field of labor.

We are informed by Dr. VanDeusen that,—

"Although aware of the many inconveniences and embarrassments attending the operations of a partially finished Institution for the Insane, the Trustees felt it to be their duty to prepare the Asylum for the reception of patients at the earliest possible moment. They, accordingly, pre-

sented to the Legislature, at their extra session last winter, a memorial asking for the passage of an Act of Organization, and an appropriation sufficient for this purpose. At that time, however, it was deemed inexpedient to legislate upon the subject, and nothing was done beyond ordering the printing of the Report.

"In the subsequent accident, whereby the centre building was destroyed by fire, the Management found a serious obstacle to the accomplishment of their purpose; nevertheless, this end has been kept steadily in view, and rooms for the accommodation of eighty-eight patients will be finished in a few months, and that number received as soon as an appropriation can be secured for the purchase of furniture. On the recompletion of the centre building, this number will be increased to one hundred and forty-four.

"You will perceive that even with a small appropriation, eighty-eight insane can be provided for very soon after the next session of the Legislature, and about sixty more in the following autumn. It is to be hoped, however, that the importance of finishing the entire Institution at once will be perceived, and appropriations made accordingly. The Asylum must be completed some time, and economy, to say nothing of humanity, requires that it should be done immediately."

That our readers may know how our State Asylum is regarded by those who have studied its construction on the other side of the Atlantic, we subjoin the following extract from the *Dublin Quarterly Journal*, which has a department devoted to Mental Diseases and their treatment. It says:

"Great good sense was shown respecting the Michigan Asylum, at the commencement, by the appointment of an experienced Medical Superintendent. This was done with the view of the building being erected 'so far under his supervision as to secure his approbation when finished,' than which nothing could have been more judicious. And another and equally wise course was carried out, that of 'taking as a basis of action the principles embodied in the series of propositions adopted by the Association of Medical Superintendents of American Institutions for the Insane; which we considered sufficiently important and practical at the time of their publication, to transcribe *in extenso* into our Annual Review on Insanity in 1851. We wish our authorities at home would take a lesson from our far-seeing trans-Atlantic brethren, in such matters.

In the appropriation of the wards, we find that the greater portion of accommodation consists in single rooms, there being so many as two hundred and forty, leaving but forty-eight to be located in dormitories. This is in the opposite degree to what prevails in these countries, the

asylums in which, we consider, are entirely too much limited in single rooms, and too abundant in dormitories. But this is done for economy, which is an injurious and mistaken one of its kind, and but ill calculated to promote either the recovery or comfort of the patients.

"Altogether, this Asylum will be, from all appearances, most complete in its several arrangements — in fact, will be a model one for the New as well as the Old World."

It will be seen by this extract that Michigan not only excels in her educational institutions, but that her Insane Asylum is an acknowledged model, not only for the New but the Old World.

We can not close this article without expressing the hope that the medical men throughout the State will see that the members of the next Legislature be duly instructed respecting the character of this Institution, and its claims upon that Body. The whole subject of Insanity is too little understood, and in our next number, on the occasion of bringing to notice a new systematic work by Drs. BUCKNILL and TUKE, of England, on Psycological Medicine, republished in this country, we propose to present some of the leading modern doctrines and practices respecting this important class of diseases. A. B. P.

Charles Ellis & Co., Manufacturing Pharmaceutists, of Philadelphia,

Have, within the past year, removed from their old store on Chesnut-street to one of the most elegant and commodious of iron-fronted buildings to be found in that city. We are glad of the opportunity thus to notice the evidence of their past prosperity, and wish them continued success.

CHARLES ELLIS, the senior partner of the house, is now President of the American Pharmaceutical Association — a position which he, by a life-long devotion to the interests of pharmaceutical progress, has fairly and honorably won. His acknowledged integrity, amiability, and gentlemanly

bearing have won him the friendship of all those who have had business or professional associations with him.

By reference to our advertising department, it will be noticed that C. E. & Co. devote themselves to the manufacture, extensively, of the Pharmaceutical and Chemical Preparations used in medicine; and, among their specialities, the superiority of which are noted, are Ellis' Calcined Magnesia, Solution of Citrate of Magnesia, Plasters (especially Spread Adhesive Plaster), Fluid and Solid Extracts, Preparations of Iron and Mercury, etc. With commendable enterprize, they furnish also the new remedies introduced.

We commend, right heartily, this house to the patronage of dealers throughout the North-West.

F. S.

Selected Articles, Abstracts, &c.

On Matters of Novelty or General Interest, as at present exhibited in the Practice of the Hospitals of Paris.

By Geo. Suckley, M. D.,
Late Assistant Surgeon, United States Army.

The Parisian journals of medicine, like those of all other countries, are constantly filled with new projects and methods of treating disease, which, although backed up by successful statistics, real or apparent, and the publication of isolated cases, merely live their day, and are shortly after forgotten.

I do not, therefore, purpose to take up all the novelties in medical treatment which have been advocated during the past winter, but merely to glance at a few of the leading matters that have lately caused more or less sensation in the medical world of Paris. Without classifying directly, into two groups, the double subject contained in the title of this article, I shall treat of the "matters of general interest" whenever their introduction is naturally induced by their connection with the novelties.

Foremost among the new things of the day, is the revival of Laennec's *antimonial treatment of chorea.* The novelty of the renewal consists in the exaggeration of the plan, and the heroic doses administered. To Mons. Gillette, of the Hôpital des Enfans Malades, is due the credit of the renewal of the antimonial treatment, which is now pursued as follows, for children say eight years of age:

The first day 20 centigrammes* of antim. tart. is given; on the second, 25; on the third day, 30. These quantities are dissolved in about three ounces of gum-water, and commence to be given to the patient, fasting, at an early hour of the morning, at the rate of a tablespoonful an hour, until it is all taken. During the administration of the doses no solid food is allowed, but the patient may take a little clear broth; the patient is also kept on his back while taking the

* 100 centigrammes make a *gramme*, which is a fraction over 15 grains.

medicine, but in the afternoons is allowed to get up and eat the usual hospital diet. If this course has not been sufficient, you will wait for the space of four days before re-commencing the treatment, giving them 40 centigrammes (about 7 grains) of the remedy, in the same way, on the first day, and increasing the dose 5 centigrammes (nearly 1 grain) for each of the two succeeding days, observing the same regulations as before. If this does not cure, you again wait four or five days, and then commence with 55 centigrammes, augmenting the quantity daily, as before, and following the same rules. If the drug operates too much on the intestines add a little laudanum to the solution. If these trials do not effect a cure, or cause radical amelioration, the treatment by tartar emetic should be abandoned. (NOTE.—The foregoing statement of the doses, etc., I have got from Dr. MILLER, who has carefully watched the practice of the Hôpital des Enfans Malades. Dr. M. says that the children with this disease *generally* tolerate these large doses very well.)

BLACHE, at the Hôpital des Enfans Malades, until recently, relied upon the shampooing process in treating children for chorea. When employing this latter method the average time of cure was twenty-five days. BLACHE now has, to a certain extent, abandoned the shampooing treatment for the antimonial; but not entirely, as a very obstinate case has lately resisted the complete exhibition of the antimonial treatment, in which he has been obliged to return to the shampooing process. This is nothing more than an addition to the mountain of proof that we can not obtain *specifics* in medicine.

BECQUEREL does not seem to think much of the foregoing plan, as shortly after it had been publicly proposed, I saw a case of severe acute chorea in his wards, which he treated in the common-sense way by following the indications. The case was that of a young girl who, through cold had a sudden suppression of the menses. Chorea manifested itself immediately, in a most aggravated form. In addition to the shower-bath and cold douche, which are his "sheet-anchors" in this complaint, in the view of the obvious cause of the malady, a vacarious flow was induced by leeches, a large number of which were applied. I saw the patient a few days after, when she was rapidly recovering.

TROSSEAU's favorite method of treating chorea is by the administration of the sulphate of strychnine, in the following manner:

℞. Sulph. strychniæ, centigrammes 5. } Cap. coch. mag. ter
Syrup. simpl., grammes 100. Misce. } in die.

Dr. NATHANIEL MILLER, of Providence, Rhode Island, now in Paris, informs me that he has seen a case of aggravated chorea, which had completely resisted TROSSEAU's treatment, carried on until the peculiar poisonous effects of strychnine had become dangerously manifested, rapidly cured by the antimonial treatment.

Mons. BRIQUET has lately advocated the *electric treatment for lead cholic.* He has demonstrated, very conclusively, that the *seat of the disease is in the muscular parietes of the abdomen, and not in the intestine.* By his treatment the pain ceases after every *application* of the agent, leaving the patient comfortable for an hour or longer. In the meanwhile, the ordinary treatment, for the elimination of the lead, can be employed. During the *application* of the electricity, the pains are greatly increased, but soon subside. BECQUEREL does not adopt the plan, but relies on the usual treatment by sulphuric acid and evacuants.

In BECQUEREL's service there have not been lately any cases of extraordinary interest, with perhaps the exceptional instance of a patient having a patch of "bronze skin" upon the forehead. Upon examination after death (from another complaint) the supra-renal capsule of the right side was found enlarged and carcinomatous, thus, to a certain extent, verifying a theory on the subject.

In testing urine for albumen, BECQUEREL prefers the pyro-phosphoric acid when a delicate test is required, this agent showing the presence of albumen, even when in as low proportion as one in ten thousand parts of urine. The pyro-phosphoric acid should be used within two hours after it is made, as, later than that, it takes up two other equivalents of water and becomes *ordinary* phosphoric acid.

A writer in the *Gazette des Hôpitaux* of December 15th, 1857, giving the results of the so-called "purgative treatment" in the typhoid fever of children, as shown by the practice of M. BEAU, makes use of the following strong language in opening his subject: "The purgative method, indubitably the best for the adult" (!), "should it be used in typhoid fever of infants (children)?" If the purgative method* *is* "indubitably the best for the adult" suffering from this disease (a theory which I think very few American physicians will admit), it is not relied upon by BECQUEREL, who prescribes but little for this disorder except good nursing; although, in rare cases, where there are severe local complications, he occasionally bleeds a little. BOUILLAUD, at the Charité, treats nearly all cases of this disease by bleeding.

The employment of mercury, in the Parisian hospitals, is almost entirely confined to its use as a cathartic, in which case very small doses of calomel are given, mixed usually in powdered white sugar. Except in the treatment of specific venereal diseases, the adminstration of mercury, to obtain its specific alterative effect, is almost entirely confined, in the hospitals of Paris, to the treatment of puerperal peritonitis and congestion of the liver.

A singular fact, noticed in the Parisian hospitals by a stranger,

* The "purgative method," of LARROQUE is the one employed. It consists in the administration of an antimonial emetic at first; which is followed afterwards by salts, repeated continually *for three or four weeks*, in sufficient quantities to produce four or five evacuations daily!!

is that no means are attempted to isolate cases of the contagious eruptive fevers; these being placed indiscriminately throughout the wards. From what I can learn, these disorders are rarely communicated to the other patients; and as they are now considered very tractable, but little heed is given to them.

Several points in the general treatment in these hospitals are well worth noticing. Foremost is the prevalence of the "let alone treatment," unless there is a strong indication to the contrary. This seems to be particularly the case with BECQUEREL. In his service, also, whenever a patient is bled, the blood is analyzed: if more than the normal quantity of fibrine is found, the bleeding is repeated, again and again, if the superabundonce of fibrine continues.

A short time ago, I witnessed BECQUEREL apply the actual cautery to several cases of ulcerations of the os uteri. The agency of the electrical cautery apparatus was employed; and I noticed that he took pains to connect the wires, and heat the metal of the cautery, *outside* of the vagina.

At first, when using the electrical cautery, he was in the habit of heating the iron near to, or directly upon the surface to which he was to apply it; but finding that even in the comparatively short time he had been thus using the agent, that two cases of metro-peritonitis had occurred, he deemed it best to employ the iron already made hot before the introduction into the vagina, in the same manner precisely that the common actual cautery is used.* The same physician, in ordinary vaginal examinations, makes use of the *tri-valve* speculum by preference.

In surgery I have seen but little new since writing my former article. In that paper I mentioned MAISONNEUVE's method of amputating with the *écraseur*, and stated that the object sought by this mode is to lessen the danger of phlebitis and "purulent absorption." Judging from the success following the removal of hemorrhoidal tumors, etc., by this instrument, and the comparative infrequency of phlebitis as a consequence, it was but fair to suppose that, in hospitals where all operations with the knife had been unsuccessful from that very cause, there must be something more than mere accident to occasion such a manifest difference where the écraseur is used. Thus far MAISSONNEUVE has amputated ten times in this manner, as follows:—2 arms, 2 forearms, 1 thigh, and 5 legs. Of this number there have been two deaths; but on a severely exact post-mortem examination, no traces of purulent absorption or phlebitis could be detected.

The case of amputation of the thigh formed one of the two fatal

* A single case of metro-peritonitis had also occurred in a vast number of instances in which the common cautery had been used. Whether this was the *only* case that has occurred in BECQUEREL'S wards, or the only case which has occurred during my informant's connection in BECQUEREL'S service, I do not now remember.

cases. It is a pity that, in the view of the experiment instituted, there was not a larger portion of amputations of the *thigh*, for comparison and examination.

Since the means used at first for breaking the bones have been improved and altered, and brought to their present perfection, the stumps following the operation are very good.

The case of injection of iodine into the knee-joint, for the cure of chronic synovitis, reported by me heretofore, was considered *cured* twenty-eight days after the operation. Several similar operations have been performed in the different hospitals within the past two months, and I have heard of one case in which both knees were injected.

Chassaignac has recently amputated the neck of the os uteri with the écraseur. I witnessed two of these operations, which were readily performed, and accompanied by very little hemorrhage, perhaps not more than two teaspoonfuls each. The ultimate results of these cases I have not yet ascertained.

In connection with the above subject, is the fact here stated, that not a single case of "Cæsarian Section" has ever been performed in Paris, without sacrificing *the mother*.

The treatment of fractures is so faulty in Paris, that, to do the subject justice, it would require more space and time than can be at present spared. For some years past, all attempts to apply the extension treatment to a fractured thigh, have been abandoned, for the reason that all the methods known to the French surgeons were liable, if extension be kept up, to be followed with sloughs of the ankle, instep, etc. The plan of making extension by adhesive plaster bands, and the "straight apparatus," until March, 1858, had not reached the "focus of medical knowledge," although it has been in successful practice for over seven years in the United States.*

* I wrote to New York for the apparatus in use in the New York Hospital. This was promptly sent me by Dr. Peters; and Dr. Buck very kindly forwarded me a letter, giving a brief synopsis of his success in thus treating sixty-one cases of fracture of the thigh, in which nineteen cases were cured with absolutely no shortening, and the other forty-two with the insignificant average shortening of but five-eighths of an inch. Prof. Nelaton, the first surgical lecturer of Paris, and at present in charge of the surgical wards of the Hôpital de la Faculté, requested me to apply the apparatus to a patient in his wards, which I accordingly did, with great care, omitting not the smallest particular. Prof. Nelaton expressed himself well pleased with the idea of extension by the adhesive bands, as also with the apparent simplicity and efficiency of the improved straight apparatus shown; and regretted that he had no case of fracture of the thigh then under treatment in his wards, with which he could test the apparatus for himself. The patient upon whom the apparatus had been shown, unfortunately for us, not having a fractured femur, Prof. Nelaton requested me to furnish him with a translated copy of Dr. Buck's letter, which I accordingly did, and have also presented him with the complete apparatus, that he may use it for himself whenever he wishes. In speaking of the plan to Prof. Nelaton, I have called it the "American method," partly because I feel a national pride in the matter, and partly because, owing to the different modifications of the straight apparatus of Dessault, which are used in the hospitals of Philadelphia, New York, and Boston, I could only designate the permanent apparatus as the "American modification" of Dessault's splints, with the addition of the

The treatment usually employed here for *ununited* fractures, is by the seton. Occasionally, however, cures have been effected by exsecting the ends of the fractured bones, and then dissecting up for a short distance the periosteum from each fragment, and invaginating, as it were, the portions of the membrane toward each other.

Maisonneuve has now under treatment a case of recent fracture of the patella, which he is treating by a method original with him. He applies bands of adhesive plaster above and below the patella, in the form of a double "figure 8," encasing the whole limb afterwards in a stiff support of adhesive plaster, put on like ordinary "straps," but wider than those we use for strapping ulcers. The effect of this casing is much like that of the ordinary starched bandage, and, I think, scarcely more efficacious. The *whole* plan of the treatment strikes me as good, and I shall not be surprised if its results are favorable, and at least one step beyond the usual modes hitherto in use.

In Ricord's hospital, Hôpital du Midi, there are at present the usual number of afflicted. I learn, from the chef de clinique, M. Poisson, that since the last edition of Ricord's letters, a point has arisen to notice, which somewhat staggers the previous theories of that eminent specialist, concerning the convertibility or non-convertibility of his two divisions of chancres; this is the fact, that chancres on the "face" (lips?) are *almost always* of the *hard* variety. To settle this point, a vast number of experiments would have to be instituted, which are precluded by the cruelty of submitting the subjects to such a risk, as well as the great danger of legal processes afterwards.

Ricord's treatment for indolent non-suppurating scrofulous buboes of the groin, is to touch the surface in points all over the enlarged gland, with a red-hot iron — each point burnt being of about the size of a pea.

This is the same manner in which Maissoneuve uses the actual cautery for treating chronic strumous inflammation of the knee. He then applies pressure by means of a narrow India-rubber "roller bandage," neatly applied.

The latter surgeon, a short time ago, reduced a very large scrotal hernia by applying a similar bandage of India-rubber.

At present, it is quite the fashion with the surgeons here to operate on fingers and toes which have had local anæsthesia produced by the freezing mixture. This is not new in the United States; but, perhaps, the hint thrown out by the Parisian experience, that the soft parts are very apt to suffer afterwards, if the cold is applied for a period exceeding three minutes, may be of use to some.

principle of adhesive plaster extension, the name of the original proposer of which I have forgotten. Dr. Nath. Miller, of Providence, Rhode Island, conjointly with myself, is having a similar apparatus made, to be used in the wards of La Pitié, and afterwards to be sent to one of the principal London Hospitals, with the view of introducing the plan into that metropolis.

Some time ago, NELATON reduced a dislocated shoulder by means of the ordinary pulleys, working on a sort of spring steel-yard, called, I think, a "dynamometer." This, on its dial-face, gave the exact amount of force employed. An ingenious instrument for suddenly letting go the rope, thus saving it from being cut, as in the ordinary manner, was also used. The working of both instruments was quite satisfactory.

JOBERT DE LAMBALLE, at the Hôtel Dieu, has operated this winter on a case of the so-called "loose cartilage" of the knee-joint. His operation was neat and successful to a degree. From a report of the case, as found in the *Gazette des Hôpitaux*, and as furnished me by Dr. WEBSTER LINDSLY, of Washington City, D. C., who watched the case while under treatment, I am enabled to give a condensed summary of its leading features:

Operation for the extraction of a movable foreign body in the cavity of the knee-joint by JOBERT (DE LAMBALLE) *at the Hôtel Dieu.* — On the 18th of November last, JOBERT attempted to dissipate a "movable cartilage," which had previously been ascertained to be lying loose in the cavity of the knee-joint. His first operation was intended to effect the object by the "bruising" method. Owing to the hardness of the body this operation was unsuccessful.

Several days afterwards, when all the commotion produced by the attempt had disappeared, the operation for the complete removal of the foreign substance was commenced by puncturing the integuments at a point about one and one-third inches above the outer side of the movable body. A very thin, sharp tenotomy knife was introduced into the wound thus made, and the instrument conducted subcutaneously to a point opposite the foreign body. The operator, then, by dexterously handling his knife, made a small concealed cavity, or receptacle, sufficiently large to allow the offending mass to be pushed into it. The cartilage being then pushed into this cell, the operation was stopped, and the wound closed by adhesive straps. The joint was kept in absolute quiet, and the usual antiphlogistic treatment adopted. Although, for some time thereafter, there was more or less of inflammation, pains, etc., in the joint, at the end of twenty-five days they had disappeared, and the patient was found in a completely satisfactory condition. JOBERT then performed the second part of his operation, which consisted simply in cutting down upon the body, and removing it with forceps. The wound was then closed by two needle sutures. With ordinary care and treatment the patient rapidly recovered, notwithstanding a slight erysipelatous blush which showed itself on the third day. The foreign body was the size of an almond, ovoid in shape, and flattened on two of its opposite sides.

The principal interesting feature of this case, and which tended so directly to its happy result, was the length of time which was allowed to

elapse between the sequestration of the "moveable body" and the period of its ultimate extraction. JOBERT insists that the period of repose between the steps of the operation, should be at least from twenty-five to thirty days.

The "*Annales d'Hygiène publique et de Médecine légale*" of January, 1858, contains a paper by Mons. AMBROISE TARDIEU, Physician to the Lariboisiere Hospital, on the medico-legal bearings of the crime of "*pederastie.*" His work contains a record of the alarming and frightful extent of this crime in Paris, as developed by the examinations of 205 individuals either actively or passively addicted to the vice, together with remarks upon its effects upon the health — its diagnostic signs, and its bearing as a contingent of other crimes.

Dr. TARDIEU is the chief medical examiner to the police in cases where expert testimony is required concerning rapes, etc., and is also a man of sufficient standing in his Profession to have been appointed visiting physician to the most new and beautiful hospital in Paris. The disgusting details through which he has had to wade in making this Report, have been manfully met. Actuated by devotion to science, and a sense of duty, he has written a paper singular in the extreme, upon a crime happily almost unknown in America. I have mentioned the existence of this Report for the benefit of those pursuing medico-legal studies, and in the words of the reviewer of the work, my excuse is — "La science est comme le feu, elle purifie tout ce qu'elle touche."

Regulation diet of the Paris Hospitals.—The following is the diet system of the Parisian hospitals. The aliments are divided into bouillons, potages, soupes (au pain), aliments solides (solid aliments), and boissons (or nutritious drinks) — namely, wine and milk.

The diet of a healthy man in his natural state, is assumed at about 1,350 grammes of solid food (about 42 ounces). This, *at first*, when the general diet of the hospital patients became systematized, was called *one* portion; patients confined to less, being ordered one-quarter, one-half, etc., of a portion.

It was found, however, that the sick were very much dissatisfied at eating *parts* of a portion. In consequence, the full portion was divided into four parts, each called *portions;* and it was then found that the patients, who grumbled most lustily at being restricted to three-quarters of the old portion, were perfectly content with *three portions* of the new standard, although, in reality, the allowances were equal in weight.

There have been, however, several alterations in details; and the single portion as now used, although approximately in direct proportion to the old full portion, is still slightly varied. This is also the case with the others.

To give a correct notion of the shifting value of the different portions as now used, it is necessary to go into the following details. But I will premise by saying, that a patient, confined to what is called strictly *low*

diet, is only allowed *broth* without bread, farina, or vegetables. The fixed daily amount of this article, is a quarter of a litre given twice—making in all a half litre per diem.*

A patient allowed a little higher diet, has two broths, and two soups a day. The soups contain a little bread or farina, rice, etc.—one *soup* contains a small trifle more than a quarter of a litre.

When one portion is prescribed, it contains: soup, twice a day, a quarter litre each time. Bread, a quarter kilogramme—about half a pound. Meat, six decagrammes—about two ounces. Wine, three portions, each containing about two and a half ounces. This wine is light red wine, coming from the middle of France. Milk, three-fifths of a litre daily, boiled. Note: The wine and milk may be exchanged for each other, at the patient's option.

Meat varies in quantity somewhat according to the number of portions, but not exactly. When one portion is ordered, the patient is supposed to be weak, and, therefore, meat of a better quality is ordered—such as roast beef or fowl. The same quality is allowed when two portions of diet are ordered; but *two portions of diet* do not contain double the quantity of meat that *one* does; although a little more than this latter, being seven and a half decagrammes (about two and a half ounces). Three portions of meat represent twelve decagrammes (about four ounces). Four portions, eighteen decagrammes (about six ounces); but the meat of the third and fourth portion allowance is *boiled beef*. The usual amount of vegetables for one portion of diet is fifteen decagrammes (say five ounces); but of the coarser kinds, as potatoes and cabbage, double weight is given.

With all the portions, there is a little boiled fruit or comfiture allowed.

Fish is given twice a week in lieu of meat, and a little more by weight allowed than of meat. The regular proportion is kept up with every thing but meat and milk. The milk of the hospitals is contracted for by the general administration, and is supplied every day fresh and pure.

It is the duty of the chief apothecary of each hospital to analyze this milk daily—and also to examine it with the polarimeter (sugar deviating the rays of polarized light).

Four portions of diet complete, contain: soup, morning and evening; meat, six ounces a day; bread, a pound; wine, from twelve to fifteen ounces. No milk (except by replacement); vegetables, twenty ounces, and and more when potatoes, etc., are given.

Extras: chop, beefsteak, Bordeaux wine, eggs, chicken, etc., are allowed only upon a *special written prescription* of the attending physician. Eggs, however, are sometimes given in replacement of meat; say

*The litre is equal to gall. 0.22.

one egg to replace two ounces of meat. The rule of the hospitals is to give *meat* itself, at least four times a week.

Four portions are not often allowed in the hospitals of the city; as a patient eating them is supposed to be convalescent, and able to go to the Hospital for Convalescents at Vincennes.

A surgeon occasionally allows a patient five portions, but this is done very rarely.

The foregoing diet seems to be excellent and liberal for the usual run of *medical* patients; but it seems far too little to support those who are being rapidly weakened by excessive and long continued suppuration.

We, misguided Anglo Saxons, think, that patients in this condition, crave and often require a much more considerable portion of food than men in a healthy state. This is to compensate for the drain of the suppuration. The stomach comes to the rescue of the poor suffering system. Should we not, they ask, put into this stomach what it demands? The building-up treatment of the English, or of our surgeons at home, casts far into the shade even the apparent prodigious allowance of five portions, by the French surgeons.

As an example of the contrary treatment in the United States, I would draw the attention of my readers to the case of a German who was under treatment in the New York Hospital, in the year 1851, for a severe compound fracture of the thigh. This man, although at one time fearfully emaciated, and, as the biographers say, on the "verge of dissolution," finally recovered, thanks to his stomach. The amount of suppuration from his various abscesses, bed-sores, and original wound, must have been, for nearly eight weeks, at an average of at least a pint daily; but the stomach coming bravely to the rescue of the patient, and the doctors and nurses efficiently aiding the stomach—although the amount of eggs, chops, beef, milk, brandy, porter, wine, poultry, etc., consumed by the creature was enormous—he lived to walk out of the hospital with a good limb—cursing those that had attended him, because he was discharged before he was able to work!

PARIS, March 27th, 1858. [*New York Journal of Medicine.*

Translations for The Peninsular and Independent.

By A. Sager, M.D.

INVESTIGATIONS RELATIVE TO THE PHYSIOLOGY OF THE NERVOUS SYSTEM, WITH ITS APPLICATIONS TO PATHOLOGY. By Moritz Schiff. Analyzed by E. Brown-Sequard.

This remarkable work, although published some two years since, is so little known out of Germany that it is deemed proper to give a somewhat extended analysis of it. The two parts of which it is composed treat, 1st, Of the influence of the fifth pair of nerves upon the blood vessels of the eye; 2d, The influence of paralysis upon the elevation of temperature.

In the first part of the work, after giving an exposition of the results obtained by Magendie, Mayo, Fodera, Valentin, Longet, Graefe, and Budge relative to the trigeminal nerve, M. Schiff relates his own experiments, of which the general results may be summed up in the following propositions:

1st. The alterations of the eye, after the section of the nervus trigeminus, is entirely due to the loss of the influence of that nerve, and not in part to be attributed to the loss of blood, as Budge seems to believe.

2d. That the opinion of Graefe, that the changes in the eye chiefly depend upon the dessiccation of the cornea, consecutive to the suspension of the lacrymal secretion, is not correct. M. Schiff acknowleges that the exposed state of the cornea, while the lacrymal secretion is diminished, is one of the causes of change in the eye, but he asserts that those alterations take place after section of the nerve, when the lids have been closed either by sutures or an adhesive plaster.

3d. Nor are the changes in the eye from section of the trigeminus, after its union with the ganglion of Gasser, due to section of the filaments of the sympathetic as Longet supposed; for, on the one hand, the greater part of these changes occur when the section was made before its passage into the ganglion; and on the other, when the great sympathetic has been divided in the neck, they do not take place.

4th. Section of the N. trigeminus does not produce a dilatation of the pupils in the dog and cat, as Magendie has stated.

5th. The alterations in the eye chiefly depend upon the paralytic dilatation of the vessels of the conjunctiva and the other parts of the eye.

6th. If a greater effect is produced by the section of the ganglion of Gasser, or that of the nerve after than before its passage into the ganglion, this circumstance is due to a change in the nerve, analogous to what Waller has shown to occur in the spinal nerves by union with the spinal ganglia. But some of the vascular nerves of the eye are derived from the medulla oblongata, for a lateral half-section of that nerve-

centre is sufficient to produce opacity of the cornea, and profuse suppuration of the conjunctiva.

7th. Several pathological facts prove that, in man, the eye suffers changes from lesions of the nerve before it enters the ganglion, and even when the latter retains its normal condition.

The second part of the work is much more interesting than the first. Its object is to show the influence of neuro-paralysis upon the elevation of temperature. After a complete historical review, in which the labors of his predecessors are candidly treated, the author presents the results of his own investigations upon the influence of section of the sympathetic nerve in the neck.

Of the numerous effects of that section, the discovery of which is chiefly due to M. Cl. Bernard, the author examines, not only those relative to the elevation of temperature, but also the contractions of certain muscles and the hyperæsthesia induced. He maintains, as I had previously done (prior even to A. Waller and Donders), 1st, That the increased afflux of blood depends upon the paralysis of the blood vessels; 2d, That the elevation of temperature depends upon this increased afflux of blood. Although the author has adduced some new facts in support of the latter opinion, yet, being well established, we will not stop further to discuss the question.

In relation to the contraction of certain muscles, after the section of the sympathetic nerve, M. Schiff endeavors to show that the approximation of the lids, and the propulsion of the membrana-nictitatio are not active phenomena, but the passive result of the retraction of the globe of the eye. He does not state positively what the cause of the latter movement is, but evidently believes that it is due to a partial paralysis of the oblique muscles. We merely indicate this opinion without discussing it. We persist in admitting the explanation which M. Schiff rejects, which makes the approximation of the lids aforesaid to depend, in part, upon the greater vascular repletion of the orbicular muscle, consequent upon the section of the great sympathetic.

As to other muscles of the face (those of the lips and nose), M. Schiff denies that they are contracted after the section of the nerve. [M. Schiff merely states that to produce such effect it requires the employment of a stream of electricity of extraordinary strength. — *Vide page* 152. Trans.] This simply shows that he has not seen the fact, and not that it does not exist. It was seen by M. Bernard, and the observation was confirmed by myself. The contraction of the muscles is more or less active, and seems to be the joint effect of the augmented activity of nutrition and the stimulation of the greater quantity of blood which circulates through them. In certain animals (the hare for example), the facial nerve sends more numerous branches to the vessels of the greater part of the muscles of the check and lips than the sympathetic nerve, and hence, as was found by M. Martin Magron, and

myself more than fourteen years since, marked contractions occur in these muscles after the section of the facial nerve.

In common with R. Wagner and Remak, M. Schiff has found that galvanization of the great sympathetic causes a projection of the globe of the eye out of the orbit, even in the dead animal. This effect he believes to depend upon the contraction of the oblique muscles, and hence regards this nerve as motor, not only of the radiating fibres of the iris, but also of the aforenamed muscles of animal life. We have also witnessed the same phenomenon, but do not regard the explication of Remak and Schiff as satisfactorily demonstrated.

The great sympathetic is not the only vasculo-motor nerve of the head. M. Schiff has shown that the filaments of the cervical nerves animate the blood vessels of the ear, especially of the hare. He also affirms that section of the trigeminal nerve is followed by paralysis of the blood vessels and an elevation of temperature. With regard to the nervus facialis, I have shown that when it is torn away at its emergence from the foramen stylo-mastoideum, dilatation of the vessels of the ears soon occurs, and a consequent elevation of temperature. M. Bernard asserts, that in this experiment filaments of the sympathetic are also torn away. M. Schiff remarks that he has seen the same phenomena result from the separation of the facial nerve, as late as ten days after the extirpation of the superior cervical ganglion, and hence infers that the facial nerve borrows none of its vaso-motor elements from the sympathetic. If restricted to the superior cervical, the inference would be incontrovertible.

M. Schiff affirms that section of the sciatic nerve always produces dilatation of the vessels and elevation of temperature of the inferior extremity. His experiments were performed upon dogs, hares, guinea-pigs, etc., and with the same result in all. Between the toes the temperature was found elevated from 2° to 5° centigrade above that of the uninjured extremity. This difference lasted several months. After some time, the thigh of the paralyzed leg lost from ¾° to 1¼° centigrade, but this without doubt was due to the motor palalysis of the leg.

The author attempts to establish the following propositions:

1st. The vaso-motor nervous elements found in the sciatic nerve, are but in part derived from the sensitive and motor roots of that nerve.

2d. The vaso-motor nervous elements are not derived from the spinal ganglia.

3d. The vaso-motor nervous elements of the sciatic are wholly derived from the spinal cord, and partly from roots that have their origin above those that endow the nerve with sensitive and motor power.

Prior to the publication of the work of M. Schiff, I had communicated to the Society of Biology a fact which deserves to be connected with the last proposition of M. Schiff. I found that section of the roots of the last pairs of spinal nerves produced dilatation of the blood

vessels of the posterior extremities and due elevation of their temperature. The experiments of M. Schiff upon the nerves of the anterior extremity led to nearly the same results as those of the posterior extremity.

He has attempted to explain why the temperature of the skin of the paralysed limb is oftener of a lower temperature than that of the sound limb. His explanation is unsatisfactory, because it does not apply to the fingers and toes.

Speaking of the researches of Earle upon the elevation of the temperature of paralyzed parts, M. Schiff says that the galvanization which, according to the English physician, produced an increase of temperature, had that effect only as a consequence of the contractions produced by it in the muscles of the limb. This is an error. I have long since shown that galvanization produces an augmentation of temperature, as well in paralysed as in sound parts, and not alone from the cause indicated by M. Schiff, but from another cause also. At first, galvanization produces a contraction of the vessels, and there is consequently a diminution of the temperature of the surface; but, after some time, the vessels relax, even under the galvanic stimulus, and, as a consequence of the increased afflux of blood, the temperature of the part augments. The same phenomena occur also in the deeper-seated parts.

The researches of M. Schiff upon the influence of the nervous centres upon animal heat, are the most interesting parts of his work. Long since I ascertained that a half-section of the spinal cord in the dorsal region was followed by an elevation of the temperature of the posterior extremity of the same side, and a depression of that of the opposite side. M. Schiff states that the temperature is not elevated in the entire limb paralyzed—only in the leg, foot, and toes, and not in the thigh. It may even amount to 12° centigrade in the dog, according to his observation. He denies that the depression of temperature of the opposite limb is constant, and attributes its occasional occurrence to the trembling and rigidity of muscles and vascular contraction due to the irritation of the lateral half not divided.

I am confident that M. Schiff is deceived; for, in the first place, the trembling and the convulsive rigidity of which he speaks do not occur in the guinea-pig, in which the diminished temperature of the leg on the side opposite to the section is easily ascertained; in the next place, when spasms or clonic convulsions do occur, I have not observed that the phenomenon is more marked than when they do not occur. In certain individuals, the refrigeration is temporarily but slightly manifest, but by extending our observations through a series of cases, the elevation becomes, at times, quite incontestible.

M. Schiff shows that the elevation of temperature of the corresponding side augments as the section is made nearer the encephalon, a fact which he ascribes to the circumstance that the vaso-motor

nerves of the limb are not all derived from the lumbar region of the spinal cord.

M. SCHIFF does not admit, with Mr. BUDGE, that the vaso-motor elements of the cervical sympathetic are derived only from the lower part of the cervical and the upper part of the dorsal portion of the spinal cord. It is quite certain that semi-section of the cord, near the medulla oblongata, produces a marked effect on the circulation and temperature of the head; but it is not less certain, as we shall soon show, that a certain number of the vaso-motor elements have their origin in the spinal cord itself. M. SCHIFF admits that they have exclusive origin in the medulla oblongata. He attempts to prove that some of these elements decussate in the spinal cord in such manner that lesions of one lateral half of spinal cord produces augmentation of temperature in some parts of both sides of the body. We shall hereafter show, from experimental and pathological facts, —

1st. That if decussating vaso-motor elements do exist in the cord, their number is exceedingly small.

2d. That the observations of M. SCHIFF upon this subject admi- of a more simple interpretation.

3d. That many vaso-motor elements stop in the spinal cord.

4th. That many vaso-motor elements, coming from various points of the body, ascend to the pons varolii, and some even to the cerebellum and other parts of the encephalon.

5th. That, consequently, the medulla oblongata is not the exclusive source of the vaso-motor elements.

(*Brown-Sequard's Journal de la Physiologie, January*, 1858.

CHEVALIER ON THE DISEASES INDUCED BY WORKING IN A MANUFACTORY OF QUININE.

The following propositions contain a resumè of the work, viz.:

1st. The operatives employed in a manufactory of Sulphate of Quinia are liable to be affected by a cutaneous disease, which may be very severe, and compel the suspension of labor for several weeks.

2d. Some of the operatives are so susceptible to the influence as to be unable to continue at their work, and are hence obliged entirely to relinquish the employment.

3d. M. ZIMMER, manufacturer of Sulphate of Quinia at Frankfort, has observed that the operatives who were employed in the pulverization of bark in his factory were affected by a peculiar fever, which he designates as bark fever (*china fieber*). This fever is of sufficient gravity to induce the sufferers to relinquish the employment, and quit the factory.

4th. This fever has not been observed in France.

5th. No prophylactic against the cutaneous affection induced by working in Quinia has as yet been discovered.

6th. Not the operatives alone who are employed in various labors in the factory are liable to this cutaneous disease, but also those who may be exposed to the emanations from the factory may become affected by it.

7th. Those who are of temperate habits are liable to the disease as well as the intemperate, or those addicted to excess.

[*Gazette Médicale. June*, 1858.

Brevities and Editorial Abstracts.

PROFESSORIAL AND EDITORIAL CHANGES.

We understand that Prof. D. F. WRIGHT has relinguished the Chair of Physiology and Pathology in the Medical School at Memphis, to accept the corresponding Professorship in the new School which commences operations at Nashville the coming winter. We would place only one restriction upon the formation of new educational enterprizes, and that should be *enhanced requirement*. Elevate the standard, brethren, and we bid you a hearty God-speed. G.

We learn from the *Cincinnati Lancet and Observer* that a new medical journal is about to be established in North Carolina, under the patronage of the State Medical Society. Dr. EDWARD WARREN, of Edenton, N. C., was appointed editor. It is to be a bi-monthly of 100 pages, at three dollars a year.

Dr. J. H. B. MCCLELLAN, of Philadelphia, has been elected to fill the vacancy in the Pennsylvania Medical College occasioned by the removal of Dr. RICHARDSON to New Orleans.

Dr. R. K. SMITH has been re-elected Chief Resident Physician to Blockley Hospital, Philadelphia, which place has lately been occupied by Dr. MCCLINTOCK, much to the annoyance of many of the Profession in that city.

Dr. S. G. ARMOR has resigned the Chair of Pathology and Clinical Medicine in the Missouri Medical College, and Dr. MCMARTIN, of St. Louis, has been appointed to fill the vacancy.

[*American Medical Monthly.*

ANIMAL CHARCOAL AS AN ANTIDOTE FOR CANTHARIDES.

It is generally known that charcoal possesses properties which are most interesting; that it removes most of the metallic salts from water; combines with oil to such an extent that it can not be separated by ether, and fixes certain of the vegetable principles. M. THOUERY, in 1851 and 1852, made a series of experiments, from which he concluded that animal charcoal possesses real efficacy in combatting poisoning by cantharides.

These experiments were 54 in number, and were performed on dogs. Lately M. THOUERY has published the details of an experiment made on men.

During the night of 12th–13th of December, 1856, ANTOINE B. experienced very acute suffering, after having taken an infusion of centaurea from a vessel which contained powdered cantharides. Being called to see him, M. THOUERY recognized it immediately as a case of poisoning by an irritant corrosive poison, but none of the liquid remaining for examination, he could not determine the nature of the poison ingested. He confined himself to the administration of general remedies, uniting, however, calcined magnesia and animal charcoal, and giving them in large doses. The condition of the patient did not seem to improve at first, but after two days of intolerable suffering, relief was obtained and health was restored.

THOUERY afterwards found that the poisoning had been produced by cantharides. He does not doubt, then, that animal charcoal largely contributed to the cure; and he regards this observation as confirmative, in a certain measure, of the results of his previous experiments. The only objection which we can adduce against this theory of THOUERY is, that it does not necessarily follow from the fact reported.

[*American Medical Monthly.*

FAVORITE PRESCRIPTIONS.

HOOPING COUGH. No. 1. ℞. Argent. Iodid., gr. xxx.; Syr. Ipecac., f. ℥ i.; Syr. Prun. Virginiana, f. ℥ iv. M. Dose, a teaspoonful.

No. 2. ℞. Argt. Iodidi, gr. vi.; Tinct. Aconite rad., gtt. j.; Syr. Ipecac., ʒ i.; Syr. Alii, ʒ i.; Mucil. Acacia, f. ℥ ii. M. Dose, a teaspoonful.

[*Philadelphia Medical and Surgical Journal.*

RAW BEEF IN THE "DIARRHŒA ABLACTATORUM."

Seventeen years ago, J. F. WEISSE, physician of the Children's Hospital of St. Petersburg, recommended for the first time raw beef, scraped, as the best remedy against the diarrhœa setting in after weaning. He repeats his recommendation as warmly now as it has been given in former years, referring to his own experience and the approval of a great many well-known observers. It is remarkable fact, and worthy of being communicated, that many of the children cured by the use of raw beef, had subsequently tænia solium, which is not usually found at St. Petersburg, but which, according to D. VONSIEBOLD (*on Nematodes and Cystici*, Leipsic, 1854) is introduced into the Russian capital by Podolian oxen.

[*Journal für Kinderkrankheiten, Jan. and Feb.*, 1858, *p.* 60.

RUPTURE OF THE TRACHEA BY A FALL.

Dr. ATLEE, of Lancaster, Pa., reports a case in the January number of the *American Journal*, of death produced by a fall, the subject, a lad of four years, striking his neck against a scraper at the side of the door. He says: "I reached the house not more than five minutes after the injury had been received, and the child was then seated upon his mother's lap, his head resting against her arm, and breathing naturally, or nearly so. There was some blueness of the lip, but this soon passed off; on his countenance there was not much appearance of distress. Where the neck had come in violent contact with the scraper, there was not the slightest mark upon the

skin. I was just about to congratulate the family upon the slightness of the injury, when the child, struggling to free himself from his mother's arms, threw himself violently backward. He at once became enormously swollen, and in a moment was dead. The cause of the swelling was evidently the entrance of air into the cellular tissue, and it extended over the head, the neck, the trunk, and the upper extremities to the ends of the fingers. At the sternum, the finger, before reaching the bone, penetrated fully an inch." There was no post mortem examination.

[*Cincinnati Lancet and Observer.*

DIARRHŒA IN THE FIRST YEAR OF LIFE.

Calomel, one-sixth of a grain every third hour, is a remedy, where there is no fever, in the diarrhœa of infants under one year of age. Such is the experience of Dr. SCHULLER, of Vienna, in regard to infants who are, or have been, nourished by breast-milk; experience in hospitals, on children artificially fed, gave a negative result. Calomel has the curing effect which has just been stated, only when the diarrhœa is beginning. If it has not been successful in stopping diarrhœa within 24 or 48 hours, it is of no use, and has to be discontinued. Vomiting, while calomel is given, yields no contra-indication.

[*Jahrbuch für Kinderheilkunde und physische Erziehung*, 1858, iii. 164.

SALT IN MILK FOR CHILDREN.

Dr. GUMPRECHT and others think that salt added to the milk of cows, makes it much more nutritious and digestible. To make cow's milk fit for infants, it should be boiled, skimmed, and a little of both salt and sugar added to it.

[*College Journal.*

CORRESPONDENCE.

CHICAGO, July 10th, 1858.

There are rumors sent here, from other cities, that there is Cholera raging in Chicago, but we poor physicians, alas! find no such addition to our profits as such an epidemic would create. I have seen a few moderate cases of Cholera Morbus, but neither the hospital nor private practice shows any true Cholera as yet.

The heat and moisture of the season has been very great, but the effect is not yet very visible upon the health of the people.

The police have just broken up a piece of villainy which was in operation here, and was carried on after the same plan as that of the man "whose sands of life have nearly run out."

A young man conceived and brought forth the idea of representing

himself to the public as an *old woman*, "whose sands of life had nearly run out," and who, for a consideration, would tell how she managed to keep the small remnant of her arenaceous particles from escaping also. This nice young gentleman took a post office box, under the name of Mrs. MARY BROWN. He then advertised extensively that he was a matron who had suffered much in her day from the various ills which female flesh is heiress to, and that she had discovered potent means whereby blessedness, and ease, and certain other advantages could be obtained, by all who were married, or expected to be, or were for any other reason in need of her benevolent, motherly advice. Also, he averred that any one who would send a letter, with two postage-stamps enclosed, to Mrs. MARY BROWN, P. O. Box No. ——, Chicago, should receive a full account of the way to save themselves from their inconveniences and sufferings.

The bait took. Numerous ladies sent in their postage-stamps, and accounts of their troubles and conditions, to Mrs. MARY BROWN, *alias* this nice young man, who, in business style, proceeded to the next step.

He filed and preserved the letters (which are now in the hands of the police), and answered each one with a circular—not furnishing the information promised, but setting forth the inducements requisite to make them forward the sum of $3 or $5 each, for another and larger printed missive, which should contain the desired directions. Strange to say, great numbers fell into the trap, and not only sent their money to this swindler, but exposed their most sacred secrets to his keeping, to be subsequently, as it turned out, filed away in a police office. The authorities found a large number of letters continually coming to Mrs. BROWN's box, with money enclosed, all which they seized and returned to their owners, with advice not to be so confiding in future.

I state these things, not on account of their intrinsic importance, but in order that your readers in the country may have some tangible facts to use in warning the people among whom they practice against the arts of these city swindlers. These advertising scoundrels have no reputation at home, as every physician here and elsewhere knows, but they make their money from people at a distance, mostly from the country; and country physicians, by taking a little pains to keep their patrons informed on the subject, may do much to protect them from imposition. X.

CHICAGO, August 10th, 1858.

The extreme heat and large amount of rain, which characterize the season with us, have produced a considerable number of dysenteries and diarrhœas. The dysenteries are quite sthenic at the commencement, and seem to require more mercurials than in former years. They also resist the beneficial effects of astringent injections more than formerly. One physician is treating the early stages by introducing into the anus pieces

of ice, and claims excellent success. In consequence of the tonic condition of most constitutions at the present time there is but little mortality.

Dr. McVickar, who was some time ago appointed surgeon to the Marine Hospital in place of Dr. Brainard, has just been removed, and Brainard re-appointed in his place. This is a political move connected with the quarrel between Senator Douglas and the President.

The floods in the Mississippi bottoms of this State have resulted in a most pestilential malaria as the waters retire. The inhabitants are attacked with dysentery and fevers of a malignant character, and are obliged to seek refuge from disease, as they did from the flood, by removal to the high grounds back of the river region.

A case of traumatic tetanus occurred in my practice last week, which is worthy of notice as being a very rare disease in this locality. From being at first apparently a mild case, it suddenly became worse in my absence, and terminated quickly in asphyxia. The patient lived in a very filthy locality, and the decaying substances around probably operated, by their effluvia, to induce the same tetanic predisposition which exists in certain localities on the sea shore where large quantities of fish are rotted for manure, and tetanus is a common disease.

The following is the rate of mortality here for July:

City Mortality for July.—The city mortality for the month of July, as shown on the record at the City Clerk's office, was as follows:

South Division	117
West Division	81
North Division	70
Total	268

The mortality for the same month for a series of years past as follows:

1848.. 41	1849..411	1850..240	1851.. 67	1852..179
1853..111	1854..934	1855..236	1856..266	1857..254
		1858..268		

From this it appears that the actual mortality has not varied much since the cholera season of 1854; but, as the population has much increased, it is evident that the ratio of deaths has diminished from year to year. X.

Pharmaceutical Department.

Improved Method of making Aromatic Syrup of Rhubarb.

By R. H. Stabler, Pharmaceutist, Alexandria, Va.

In preparing Aromatic Syrup of Rhubarb, I have obtained a more elegant preparation by modifying the process of the Pharmacopœia in the following manner:

Displace the aromatics separately with a portion of the dilute alcohol until four fluid ounces of tincture are obtained; set this tincture aside; exhaust the Rhubarb with the remainder of the menstruum; then, by means of a water bath, evaporate this liquor to twelve fluid ounces; to this add the aromatic tincture previously prepared, and three pints of water; filter through paper, and add seven and one-half pounds (troy) of sugar; dissolve with a gentle heat. It should measure seven pints when done.

Pulvis Ipecacuanhæ et Opii.

Lactin, or sugar of milk, will be found to replace, with advantage, sulphate of potassa in the preparation of Dover's powder. It should be employed in crystals; and the trituration of it (when reduced to powder), with the powdered opium and ipecacuanha, should be long continued, the whole being finally passed through a fine bolting-cloth seive.

The bland nature of the lactin serves to render Dover's powder, thus prepared, more acceptable to children. F. S.

Emulsion of Cod-Liver Oil.

The following mode of disguising the taste and odor of Cod-Liver Oil is suggested to those who find it impossible to persuade some patients, from the disgust which it excites in them, to take it in the natural state:

℞. Carbonate Potassa, one drachm; Water, two and a half fluid ounces; Cod-Liver Oil, four fluid ounces; saturated solution of common Salt, one-half fluid ounce; Essence of Cloves, one fluid drachm. Rub the Carbonate

Potassa with a little of the Water, add the Oil, and rub well together, then add, gradually, the balance of the water, solution of salt, and finally the essence.

One-half the bulk of this emulsion being oil, the dose can be graduated accordingly. F. S.

Ferrated Fluid Extract of Wild Cherry Bark.

Mr. Wm. Warner proposes the following:

Take of Cortex Prun. Virg. contus. . .	12 oz.
Amygdalæ Dulc.	2 oz.
Ferri Oxyd. Hydrat. . . .	½ oz.
Sacch. Albi	12 oz.
Ferri Citratis, Alcoholis, and Aquæ font. of each a sufficient quantity.	

I first exhaust the bark of its tonic principles with the alcoholic menstruum, and the resulting alcoholic tincture I carefully evaporate to expel the alcohol, and then mix the residue with six ounces of water, and add the hydrated sesquioxide of iron, allow it to macerate for six hours, occasionally agitating, and filter into a bottle containing an emulsion of the almonds (amgyd. dulcis 2 oz., aqua pura 6 oz.). When the reaction has ceased between the emulsin and amygdalin, it is again filtered and the sugar added, and for every ounce thus to be prepared add 24 gr. of citrate of iron, previously dissolved in water sufficient to make the whole fluid extract measure 24 fluid ounces.

The addition of iron to the bitter principle and hydrocyanic acid of the simple extract of wild cherry, I think should render it much more efficient as a tonic, and greatly add to the value of the preparation.

[*American Journal of Pharmacy, for July.*

On the Preparation of Carbonic Acid Water.

Among the many duties of the Pharmaceutist, the manufacture of mineral water and the syrups has become quite an important one, and perhaps a few hints may not be out of place in this Journal: therefore I propose, firstly, to give the proper proportion of sulphuric acid and base to generate all the carbonic acid, without the loss of either.

The two articles (bases) usually employed in generating the gas, are sup. carb. soda and carbonate of lime, either in the form of whiting or marble dust, but of the two the former is every way superior, both in quantity and purity of gas, cleanliness, etc., etc. The following are the proper quantities. For ten pounds bi. carb. soda, it will take six pounds and thirteen ounces of sulphuric acid (officinal strength) to neutralize the soda, and thereby disengage all the carbonic acid, the remaining salt being sulphate

of soda (Glauber Salts) in the generator in solution, which can be evaporated, and beautiful crystals of the salt obtained.

The soda should be mixed with about six gallons of water, provided the apparatus is a ten gallon one; for unless the generator is well filled with water and the soda, there will be a large space for the gas, consequently a serious loss. Suppose there is only the space of two gallons left, there will still be the waste of as much gas as there is in the fountains, unless there is always an extra font on hand to save it.

As many still use the marble dust or whiting, the following will be the proper quantity of sulphuric acid, to disengage the carbonic acid, — nine pounds eleven ounces; the remaining product being an insoluble hydrated sulphate of lime.

The ten pounds carbonate of lime, or marble dust, yields four pounds five ounces of carbonic acid.

The ten pounds bi. carb. soda, will yield five pounds three ounces of carbonic acid.

The comparative cost of the two is as follows: say ten pounds of whiting, fifteen cents; nine pounds eleven ounces sulphuric acid, thirty cents (making forty-five cents, yielding sixty-nine ounces of gas); ten pounds of soda, sixty cents; acid twenty cents (making eighty cents, and yielding eighty-three ounces of gas). Although the whiting appears a little cheaper, the danger of the insoluble sulphate of lime caking the generator, choking the pipes, washers, etc., must be considered, as well as the labor of handling so much more acid, dirty mixture of the lime to be discharged from the generator, etc., etc.

The weights alluded to above are avoirdupois. It may be as well to take a little more of the acid than given above, to thoroughly disengage the gas.

[*Journal and Transactions of Maryland College of Pharmacy.*

Cream Syrups.

To Mr. A. B. Taylor we are indebted for the introduction of Cream Syrup, amongst other excellent things. This class of syrups has not depreciated in public favor, when dispensed of good quality. But the speedy decomposition which the cream is liable to undergo, and the trouble of procuring it at all times, is a difficulty which it is desirable to remedy by offering a substitute. Below I give a recipe for Cream Syrup, which I have employed for some time, and which has gained no little celebrity.

Take of Ol. Amygd. Dulcis (recent) . . 3 f. oz.
Pv. Gum Acaciæ . . . . 2 oz.
Aquæ fontanæ . . . . 9 oz.
M. ft. emulsio, et adde, Albumen Ovi, No. 2, Sacch. Albi, 1 lb.

M. Dissolve sugar by gentle heat, and strain; fill small bottles and keep in a cool place well corked. This preparation is easily made in a few min-

utes, and will keep for a long time. For use, mix one part with eight of any of the ordinary syrups, or about a drachm to every glass. It forms an unequalled orgeat by mixing two drachms or more with an ounce of simple syrup, and flavor with a mixture of bitter almond and orange-flower water.

[*American Journal of Pharmacy, for July.*

Cold Cream.

The following is Mr. WARNER's recipe for Cold Cream compound, which will be found to be a most elegant preparation:

Take of Ol. Amygd. Dulc.	8 oz.
Cetacei	1 oz.
Ceræ Albæ	½ oz.
Aquæ Rosæ	3 f. oz.
Aquæ Flor. Aurant.	1 f. oz.
Glycerinæ	1 f. oz.
Sodæ Boratis	1 oz.

By a gentle heat, carefully melt and mix the oil, spermaceti, and wax; to these, on cooling, add the medicated waters holding the borax and glycerin in solution, and throughly incorporate in a mortar until cold.

[*American Journal of Pharmacy, for July.*

Sarsaparilla Syrup for Mineral Water.

The following recipe is proposed by Mr. WARNER:

Take of Rad. Sarsaparillæ contus. . . .	8 oz.
Cort. Sassafras, and Sem. Anisi, of each	2 oz.
Sem. Coriandri	1¼ oz.
Sem. Fœniculi, and Semi Cari, of each	1 oz.
Fol. Ros. Gallicæ	2 oz.
Rad. Glycyrrh.	1 oz.

Macerate, and displace one gallon liquid with water; add sugar 16 lbs., and dissolve with very moderate heat; color, if desirable, with cochineal This is a very excellent syrup for mineral water.

[*American Journal of Pharmacy, for July.*

THE

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Original Communications.

ART. XXXIII.—A Peculiar Case of Tumorous Growths.

BY I. G. BUGBEE, M. D.

THE following case may not be altogether uninteresting to the readers of the Journal. It has been one of much interest, not only to the medical faculty in this section, but to the community in general. The subject was a young man, much esteemed for his amiable qualities, sterling integrity, and moral worth.

CHARLES T——, twenty-one years of age, of good constitution, brought up in active life on a farm until a few months previous to his being taken sick, when he commenced work at the joiner business. Began to complain of pain in the head, also in the extremities, hips, &c., last fall. He soon was obliged to quit labor, and was prescribed for by a regular physician, under whose treatment his health apparently improved. It was thought to be a case of sub-acute rheumatism.

Not recovering his usual health, his parents being strong believers in modern Spiritualism, he was placed in charge of a "healing medium"; but not improving under the direction of "the spirits," Hydropathy was tried, but with no better success. During the latter part of winter, or early in the spring, several tumors made their appearance on the head, body, and extremities. On the extremities, they were not specially located near the joints, except one on the right shoulder. The largest and most prominent was one situated above the right eye, apparently attached to the superior portion of the os frontis; another, situated on the posterior part of the head, having its attachment to the inferior portion of the occipital bone. These tumors were not painful, nor very sensitive to the touch; they appeared rather hard, at least not soft, except the one on the forehead, which sometimes appeared quite soft—fluctuating, as though containing pus. The tumors gradually increasing in size, the patient becoming quite deaf, entirely blind in the right eye, which retained its natural appearance, but could faintly discern objects by the left eye, which protruded from its socket in the shape of a cone, probably being crowded from its place by an internal tumor. There was a degree of stiffness of the joints, and locomotion was performed with considerable difficulty. Pulse varying much,—sometimes soft, and as low as 80 per minute; at other times slightly bounding, and as high as 130.

Hydropathy having failed, he was again placed in charge of the "spirits," or spiritualists; was visited and prescribed for by the celebrated Andrew Jackson Davis, immediately following which he was prescribed for by a dead Indian, or *Injun* doctor, through one Fairfield, a spiritualist who has been lecturing through this section; and, indeed, such faith had his friends that he would cure him, that his father wrote a communication, which was published in the *Spiritual Telegraph*, in which he stated that his

son was fast recovering, under the prescriptions of the spirits. But, alas! disease was rapidly making sad havoc with his physical system.

Again the regular physician was called, who candidly acknowledged it to be a hopeless case, far beyond the reach of medical skill, but who continued to prescribe for the relief of his suffering, until some three weeks previous to his death, when a resort was again had to the "water treatment," but all to no use, and on the morning of Friday, July 30th, his spirit left its diseased tenement, for a place where we hope it will not be troubled with the groveling things of earth, but free and happy in the paradise of God.

He retained his mental faculties unimpaired to the last; his voice was strong, and he would converse freely and intelligently. For several weeks previous to his death he suffered much, especially in voiding urine, and it was with great difficulty the bladder could be emptied at all. His appetite remained tolerably good throughout the whole time of his sickness; his bowels quite regular, or easily acted upon by cathartics; much emaciated, though not extremely so.

The foregoing history I have gathered mostly from a friend of mine, the regular physician several times spoken of above, and with whom I visited him several times.

A *post mortem* examination was made, at 4 o'clock P. M., on the day of his decease, by Dr. ALLEN, of Elkhart, Indiana; present, and assisting, Drs. DAVENPORT, of Elkhart, DAVENPORT, of Mottville, and LOCKWOOD and BUGBEE, of Edwardsburg, Michigan.

Appearances.—On making a crucial incision of the scalp, several tumors were cut through; these tumors adhering quite firmly to the periosteum, or rather the periosteum was destroyed, leaving a rough, ragged appearance of the bone,

and in many places ossification, shooting up in sharp points. On dissecting out the large tumor on the os frontis, it presented a red, dingy appearance, quite soft, with hardly substance enough to hold itself together, appearing like softened spleen, as I have seen it in other cases, more than anything else to which I can compare it; and this was the appearance of the entire mass of tumors found in the examination. Under this tumor a portion of the frontal and temporal bones, two and a half inches in diameter, were nearly destroyed, not being more than a line in thickness. On removing the skull, there was found similar tumors on its inner surface, as a general thing corresponding with those external; some of them adhering firmly to the pia-mater, or seeming to have a nucleus in that organ. The internal surface of the bone corroded as the external; slight ossification in several parts of the brain, especially near its cavities; superior portion of the spinal cord softened. On examination of the chest, the entire cavity of the lungs was found filled with a clear yellowish fluid, which had escaped from the pericardium, that such being found ruptured; and, from what it still contained with what had escaped, it was judged it must, previous to its being ruptured, have contained at least four quarts of this fluid. The right lung, perfectly collapsed, strongly adhered to the pleura, and from its appearance could have performed none of its natural functions for months. Left lung healthy, and in its normal state. Heart hardly as large as natural, slight fatty deposits on its surface, internally appeared healthy. The internal cavity of the chest, comparatively speaking, was entirely lined with tumors, presenting the same appearance as those external; two very large ones (as large as a tea cup) posterior to the right lung, directly in contact with the spinal column. The liver and gall bladder healthy. Stomach and bowels not examined.

A description of this case on paper, and that from

memory only, can scarce convey a tithe of the interest felt by those who saw it, and witnessed its progress. I have given it in as few words as possible, without even presuming to name the disease, for as yet I have seen or heard no satisfactory name for it.

EDWARDSBURG, Cass Co., Mich., August 2d, 1858.

[The above is one of much interest to physicians generally, as well as to those feeling a more personal interest from their connection with. Though a singular and very unusual case, we see not what else it could have been than an extraordinary specimen of cancerous growths. A careful reading of the account, and a comparison of it with the known forms of disease will bring one, it seems to us, to the conclusion above stated. P.]

ART. XXXIV.—Case of Webbed Fingers and Toes.

BY A. O. POTTER, M. D.

THIS child came under my observation about a week ago. It is a male, and is now some two weeks old, in perfect health, and growing finely.

The fingers on both hands, as well as the toes on both feet, are "webbed." The *fingers* and *thumbs* are very firmly connected to the very ends, so that you are unable to flex one of them without flexing the whole hand. The first row of phalanges are about as closely connected as the *metacarpal bones;* the other phalanges are not so closely united, but admit of more or less movement between them, and present more of a *webbed* appearance than the first row of phalanges, although these are very strongly connected. There is a cartilaginous growth on the side of each little finger, which seems to be an attempt, but yet

a failure, of Nature, to produce an extra finger on each hand. The hands are perfect with this exception, were they not webbed.

One of the feet is slightly "*club foot.*" There are six toes on each foot. The extra toe is a big toe; and is situated alongside of the big toe proper, making two big toes on each foot. None of the toes are cartilaginous, but are perfect in all respects. The webbed connection between the toes is very strong—in fact the phalanges of the feet are as closely connected as the metacarpal bones. I should think from the appearance of the feet and toes, that the toes had been stuck into the foot, leaving nothing to be seen of them but the nails. They present a very peculiar appearance.

The fingers and toes are all united to the ends by the *web*, having the appearance of the union of the metacarpal and metatarsal bones, rather than the phalanges, the "web" is so thick and muscular.

The fingers will be divided at as early a period as the strength of the child will admit of it, but the toes will be left as they are.

MANTORVILLE, Minnesota, July 28th, 1858.

ART. XXXV.—Yarrow.

By E. DORSCH, M. D.

IN the July No. of THE PENINSULAR AND INDEPENDENT, I found a short notice about Yarrow (*Achillea Millefolium*), and as this plant is a favorite remedy with me, it gives me pleasure to let you know some of the most striking results of its medicinal power.

I usually prescribe it in those cases of Suppression of the Menses, where I find great laxity and torpor in the

uterine system, combined with irritability and painful menstruation, often accompanied by slight hysterical spasms. Sometimes I give it against hæmorrhages from the same cause, and in cases of Bleeding of the Lungs produced by suppression of the catamenia. Great loss of blood by Piles indicates this remedy too, and it is, in many cases, of the greatest benefit to the patient. Chronic Leucorrhœa, and profuse Blennorhœa of the bladder may be treated with this plant; and if it should not alone effect a cure, it is at least a great adjuvant.

How excellently it operates in cases of Hæmorrhage of the Lungs, caused by suppression of the menses, may be shown by the following case:

Miss —— ———, nineteen years old, school-teacher, came to my office about a year ago, complaining of a steady cough, frequent bleeding of the lungs, general debility, fever, loss of appetite, etc. She looked like a consumptive, had bright red spots on the check-bones, pulse feverish, tongue slightly coated, peristaltic motion slow, but auscultation and percussion did not prove the presence of tubercles. The pulsations of the heart were very strong. Although she had been already in the hands of several physicians, who had recommended her cod-liver oil, etc., she always had concealed, by ill-timed bashfulness, the suppression of the menses, probably produced by getting cold the winter before, when she walked a mile through the snow, being confined afterwards in a much heated school-room.

I ordered, first, soakings of the feet, with common emmenagogues, as iron, crocus, etc., and at last a tea of *Achillea Millefol.* ($\frac{\mathfrak{z}}{\mathfrak{z}}$ ss. for three teacupfuls of boiling water per die), with occasionally one drop of *Ol. Sabinæ* on sugar. After a treatment of fourteen days with the last mentioned remedies, the lungs got free, cough subsided, the menses appeared, and the patient improved rapidly. I discontinued the Oleum Sabinæ, but gave the advice to con-

tinue the Yarrow-tea till the turns came on again; which resulted in the perfect cure of the supposed consumptive school-teacher.

Monroe, Michigan, July, 1858.

ART. XXXVI.—Abscess of the Bones.

By Chas. Rynd, Medical Student.

In the September No. of the Peninsular and Independent, we find an original article on "Simple Abscess of Bone, with Enlargement," by Dr. Brodie, of Detroit. An interesting account of three cases on which he successfully operated, is there given. Such communications can not fail to interest that class of the Profession who give attention to Surgery as a practical matter. Indeed, careful reports of important cases, *however thoroughly such subjects may have been discussed by nearly every writer on Surgery heretofore*, should occupy a prominent position in our Periodical Literature.

The writer, however, in the opening sentence of his article, makes a bold, and, in our opinion, an unwarrantable assertion. He says, "The subject of *Abscess* in the Body of Bones has received *but little attention from the writers on Surgery*, if we may judge from the reading of their works." On the third page of this article, after detailing the case of Mr. Sevier, the young man who had met with a "*change of heart*," he says,—"The case was interesting, as it was the first of the kind I had seen, *or even heard of*." The article closes with the following *striking* sentence: "We have recorded the above cases, that the observation of others may be called out, and that the disease, of which *we now know so little*, may receive its proper share of

attention." Thus, it will be seen that our author fortifies his article in the beginning, middle, and end, by assuring his readers that the subject has received but *little attention;* that Mr. SEVIER'S case was the first *he had even heard of;* and that *he* has thrown a luminous ray on a disease which has been overlooked by the "writers on Surgery."

It is usual, in these days when, not only authors themselves, but also all honest men, are jealous of authors' rights, to bring bold assertions, similar to those quoted above, to the test of critical examination. Our readers will not stare, we presume, if we take exception to the assertions contained in the article in question; which assertions are correctly transcribed. Indeed, we confess that we were not a little surprised on reading the article. We had been taught that Simple Abscess of Bone is a condition of not very unfrequent occurrence,—a disease, too, amenable to proper treatment. As a Student of Medicine, we considered it our duty to examine the text-books and other standard Surgical works, and, from the teaching we have received, and the information we have derived from "authorities," we are prepared to establish the following proposition:

That "the subject of Abscess in the Body of Bones has received" its full share of "attention from the writers on Surgery, if we may judge from the reading of their works."

This proposition, if established, will necessarily either cause the retraction of the quotations we have just made, or demonstrate their inaccuracy.

BRODIE (Sir BENJAMIN), MAYO, ARNOLD, and ROKITANSKY, it is true, have each received credit for writing on this subject; but that a host of other Surgical writers, whose names have been entirely overlooked—who are unfairly dealt with—have grappled with this subject, is a

fact known to the veriest tyro in Surgery. How this happened is not for us to say, but we appeal to the books.

To begin with one of our most common text-books—DRUITT: we there find particular reference made to *Abscess of the Bone.* "*A cavity* lined with a vascular membrane, and *filled with pus,* is formed in the *substance of the Bone,* generally the tibia, which may or may not be unusually dense around it." A good engraving of this morbid condition, as found in *the shaft of a long bone,* is also given by DRUITT. Here we find the same condition present, as that depicted in the article we are critising. The treatment is also given; and is that followed by the writer of the article, according to his own version of things. In this case, therefore, it appears that one of "the writers, judging from the reading of his work," has given attention to "this disease, of which *we now know so little,*" and of which our author "*never even heard.*"

In "MILLER'S *Principles,*" 3d Am. Ed., page 404, we find a very full account of "Limited Internal Abscess," both of the acute and chronic kinds. Fig. 119 represents an "Internal Abscess affecting the Tibia, *near its centre.* Cured by the trephine. Patient a policeman, æt. 22.—*Liston.* Case narrated in Liston's Elements, p. 117." Figure 120 illustrates a case of "Chronic Abscess of Tibia—of large size. Bone much thickened as well as expanded round the cavity. Prepared in Royal College of Surgeons' Museum." Figure 117, in the same work, also shows a "Limited Internal Abscess in *lower part of Tibia.* Section of bone. Prepared in Royal College of Surgeons' Museum."

HASTINGS, in his "*Practice of Surgery,*" says: "Abscesses are sometimes also met with *in the canals of long bones.* Some make rapid progress, additional deposit takes place of osseous matter around the cavity, and the periosteum becomes now vascular and thick."

PIPER, in his "*Operative Surgery,*" discourseth thus:

Abscess of Bone: This disease is characterized by *a cavity* lined with a vascular membrane and *filled with pus*, formed *in the substance of the bone.*"

Could language be plainer? Have our authors overlooked this subject, or has Dr. B. had sufficient reason for saying that this subject "has received but little attention from the writers on Surgery, if we may judge from the reading of their works"?

GROSS, in his "*Elements of Pathological Anatomy*," does not overlook this disease. "In the upper extremity of a carious tibia, I discovered *three distinct abscesses.* They were lined each by a soft vascular membrane, and the long texture in the neighborhood was remarkably hard and white. Abscesses of this kind seldom attain any considerable magnitude: their contents are dark colored, thin, and offensive, and, *if* seated near the extremity of the bone, the matter usually manifests a tendency to work its way into the contiguous joint."

The reader will please mark the bearing of the word "*if*" in the above quotation, and draw his own conclusions.

It is very natural that we should consult STANLEY, who has devoted so much attention to this particular subject. In his work on *Diseases of the Bone*, he says: Suppuration in bone is in some cases of small extent, and the matter is contained in a *single round* or *oval cavity*, hollowed out of the substance of the bone." . . . . . "The circumscribed abscess is mostly situated near the articular ends of long bones, but *I have seen it in the middle of their shafts.* The cavity in the bone is usually lined by a very vascular membrane, and around it the bone is *hardened*, also in some instances enlarged by the expansion of its texture." . . . . "The circumscribed abscess usually remains of small size, but in some cases it has enlarged much beyond the natural limits of the bone."

Who has not read "*Stanley on the Bones?*" Who

that has, will drink in the assertion that "this subject has received but little attention from the writers on Surgery, *if we may judge from the reading of their works.*" Verily, a sin of omission has been committed, and that, too, of enormous magnitude.

PIRRIE by NEILL, in discoursing on this subject, says: "This usually takes place in the cancellated heads of the long bones, frequently in the head of the tibia, sometimes *in its shaft.*" This author also gives a succinct, yet accurate description of the symptoms, etc., showing pretty conclusively that *he knew a little* about it.

COOPER, in his "*Surgical Dictionary*"—a work very extensively used a few years ago, and still found in the library of almost every medical man making any pretensions to Surgery—speaks of a condition called *spina ventosa.* This is probably identical with what MILLER terms *Osteocystoma*, which, "in some respects, resembles chronic internal abscess"; and of which COOPER speaks as follows: "The name was also applied to *Abscesses* which *commenced in the cavities of the middle portions of the long bones.*"

J. L. PETIT relates that a man with a tumor on the middle of the tibia, who had been treated by him as a veneral patient, found, a fortnight afterwards, that the pains which had never ceased, now began to grow more violent. The patient was feverish, his legs became red, and even painful externally. An incision was made in the situation of the tumor with a view of letting out the matter which was suspected to be the occasion of the bad symptoms. The incision was of no service, and two days afterward the trepan was applied, by which means *a large quantity of matter was let out.*

If any one doubt that Abscesses form in the middle of the long Bones, I must request him to consult Mr. HEY'S *Practical Observations in Surgery, p.* 22, *when he may peruse two very interesting cases of what* Mr. HEY *calls*

Abscess in the Tibia with Caries." (Note, Coopers' Surg. Dict.)

That an Abscess may occur in the cavity of any of the bones is conclusively proved by Mr. LISTON. In the *Lancet* of November, 1843—fifteen years since—he speaks particularly of a circumscribed abscess "in the cavity of the lower jaw." He describes it, too, with that minuteness, and speaks of the morbid condition with that accuracy which shows his *knowledge* of the subject.

It will be seen from the quotations we have just made, that writers have, at least, *heard of this condition*, and that it has received their attention, "if we may judge from the reading of their works."

How the author of "Simple Abscess of the Bone, with Enlargement," could have so far depart from his usual acumen, we can not surmise. If he intend giving us something of which we have not yet "even heard of," it is evident he must seek some other subject than that of "Simple Abscess of Bone."

He says "We have recorded the above cases that the observation of others may be called out." We answer "the observation" after which he so anxiously seeks might easily have been found in the library of any respectable practitioner.

We trust that Dr. BRODIE will be more guarded when he next attempts to enlighten the Profession on a subject of which *he* had never "even heard of," previous to the summer of 1854.

September, 1858.

ART. XXXVII.—Report of an Unusual Case of Disease.

By J. J. Comfort, M. D.

J. B., a negress, about thirty-five years of age, the mother of eight children, formerly a house-slave in Kentucky, but of late years has resided in this State. Her last confinement was some two years since; took cold after it, and has since been troubled with bearing-down pains and falling of the womb. For the past year has been troubled occasionally with fits of dyspnœa, which, from her account, seemed asthmatic. On the 6th of June last she was admitted to the St. Mary's Hospital of this city; had been able to do housework until a few days previous; complained of palpitations of the heart, great dyspnœa, severe pains shooting through the chest and in the left side, bearing-down pains, and scanty urine. There was considerable bronchial irritation and cough; appetite poor; pulse frequent and feeble; tongue slightly coated, and heat of the surface increased.

Upon physical examination, her heart was found to be hypertrophied, and evidence of some effusion in the pericardium and pleural cavity, with œdema of the lungs.

She was treated with aperients, cough mixtures, anodynes and diuretics. A blister was applied to her left side, the seat of her greatest suffering. After some time, considerable relief was obtained; the lung and heart symptoms gradually abated, her cough grew less, the pains in the side disappeared, and the cough became easy.

In the meantime other symptoms appeared. There were several slight chills, followed by œdema of the limbs and some ascetes. Quinine and diuretics were administered, and the dropsy disappeared. The stomach became irritable, and food was not well retained. There were severe pains in the bowels, especially upon the right side, and extending

to the region of the kidneys. The liver extended below the ribs, and an ill-defined tumefaction was detected just below its margin, and extending into the right illiac region. The urine still continued very scanty, and little influenced by diuretics, some days scarcely any being passed; it was analyzed, and found to be remarkably loaded with albumen. The suffering was, at times, extreme, and nothing but a free use of anodynes would secure her any relief, and that only temporary. The bowels were kept open by cathartics. The pulse, though feeble throughout, became very weak, and the nervous system much deranged. Hysterical symptoms were occasionally manifested, and these soon grew into epileptiform convulsions, so severe that chloroform was used to relieve the spasm, which it did, speedily and completely, but only temporarily. There were frequent complaints of griping and bearing-down pains, with a strong conviction that the disease was in the uterus; but a vaginal examination only discovered a congested condition of the neck of that organ, accompanied by a slight dark serous discharge which was not thought sufficient to account for the symptoms presented. The urine continued scanty, and gave the reaction for albumen, but not so marked as at first. The motions of the bowels were not examined, as they were not suspected to be at fault.

Thus she continued several weeks, until her death, upon the 26th of August, 1858.

The treatment was mostly palliative.

Post-mortem; twelve hours after death.—Lungs examined, but found nearly healthy. The heart was hypertrophied, softened, and paler than natural. The pericardium was adherent to a considerable extent. In the right ventricle was found a fibrinous clot of considerable size, broad and extensively adherent to the endocardium. The tricuspid valves were slightly defective, somewhat irregular and thick-

ened upon their edges. The semilunar valves appeared healthy.

The liver extended some distance below the ribs, but when removed did not appear so much enlarged as was expected. The gall bladder was distended with bile, but no obstruction was discovered in the cystic duct. The substance of the liver appeared nearly healthy, though somewhat paler than natural.

The stomach deviated but little from its normal condition.

The kidneys were found slightly enlarged, with a few indentations upon their surface, resembling the first stage of contraction in Bright's disease. No further abnormity was noticed until they were laid open: the pelvi were then found partly filled with fatty matter deposited beneath the mucous membrane, whilst this membrane itself was apparently in a state of chronic inflammation, which extended also to the tubuli uriniferi, for, on pressure of the cones, a muco-purulent matter issued from them.

The intestines: The colon was displaced. From the caput or cæcum, the colon passed obliquely across the abdomen to its usual point of descent, here forming a very acute angle with its descending portion. The duodenum, and some other portions of the small intestines, were very firmly bound together and adherent to the pancreas. A large mass of thickened and infiltrated mesentery occupied the site of the ascending colon, and accounted for the tumefaction felt in the right illiac region. At different points throughout its whole length, the mucous membrane of the intestines appeared to have been in a state of chronic inflammation. At different points, and especially in the cæcum, this membrane was injected with blood, thickened and much altered. Fibrous bands had formed, and contractions, to a limited extent, had taken place. Amid the contents of the intestines, numbers of small

masses, of strange and unusual appearance, were discovered: they were of various sizes, some as large as filberts, and when dissected were found of a homogeneous structure, resembling masses of very firmly coagulated albumen. In the mesentery, between the liver and duodenum, and just below the entrance of the ductus communis choledochus, there was observed a tumor of the size of a pullet's egg. On opening it, it was found to be distinctly encysted, and filled with soft cretaceous matter, interspersed with harder and more gritty masses.

[We regard the above case as one worthy of more than a passing notice. The very scanty quantity and exceedingly albuminous condition of the urine continuing so long a time, unaccompanied by any considerable amount of dropsical effusion, or general structural change of the kidneys; the irregular thickening of the mesentery giving the appearance of an illy defined, but, taken in connection with other circumstances, what we conjectured might be a cancerous growth; the displacement of the colon, and the terrific, distracting, uncontrollable and unaccountable pain—these, and other circumstances detailed in the Report, conspire to render the case one of much interest.

But we wish to call attention more particularly to the peculiar persistent inflammation of the intestines, which we now believe to have been the chief cause of the severe pain, though we confess it was not distinctly recognised until the fibrinous or plastic balls were discovered among their contents post-mortem, when it was at once suggested, and an examination of the mucous surface itself rendered the case more clear.

We have to regret that, although the case was in other respects carefully investigated, the stools were not examined; the patient herself and the nurses, though the latter

were careful and experienced, failed to notice anything peculiar about them. This circumstance is mentioned to illustrate the importance, in obscure cases, of observing everything which might, by possibility, throw light upon the diagnosis. The moment those masses of plastic matter were seen in the intestines, we remembered of seeing somewhere (but even now, after considerable search, we can not point to the place), an account of a peculiar disease of the bowels, attended by very severe pain, and also by albuminous or fibrinous masses in the discharges. The only reference we have been able to find to anything of the kind is in a note in Dr. Wood's *Practice*, 4th Edition, Vol. I., p. 590. He says:

> "A variety of chronic pseudo-membranous inflammation of the bowels has been described by Dr. W. Cumming, of Edinburgh, having peculiar characters, and demanding a peculiar treatment."

Dr. Simpson also spoke of it, regarding it a kind of eruptive disease of the bowels, and for which he prescribed arsenic. It was marked by pain in the hypochondriac or illiac region, or both; appetite and digestion not materially impaired; the bowels sometimes loose and sometimes constipated, etc.; and the discharge of a peculiar fibrinous matter, which is in some instances stringy or tape-like, in others in small masses, and in others again different, or gelatinous.

The appearance of this fibrinous matter in the stools is the pathognomonic symptom. There is besides great nervous disorder, producing sleeplessness, mental depression or hallucinations, etc. According to Dr. Cumming, the remedy most successful after all ordinary means had failed, was electro-galvanism, aided by the internal use of tar, suggested by Dr. Simpson. This treatment is described as quite successful.

In the case above reported, there was doubtless urea

in the system, from the deficient action of the kidneys; and the relations this probably sustained to the intestinal inflammation should not be lost sight of. It might also be interesting to inquire as to what relation, if any, the displacement of the colon sustained to the pain.

In another post-mortem examination of a patient in the hospital, a year since, dying of chronic abdominal disease, accompanied with the severest pain, the colon was found crossing the abdomen near the pelvis.

If tar was so useful a remedy in the cases in Edinburgh, would not an emulsion of turpentine been likely to have relieved this patient?

Still, with the complications existing in this case, it doubtless differed essentially, in the intestinal part of the disease, from those described by Drs. CUMMING and SIMPSON, though possessing some of the same features.

One of the most important lessons to be derived from this narration is, that in all obscure cases, and especially when great pain in any portion of the abdominal region is present, the stools, as well as the urine, should be carefully examined, and their indications regarded.

A. B. P.

ART. XXXVIII.—Reduction of Inversion of Uterus, after the Lapse of Months or Years.

BY A. B. PALMER, M. D.

IN no department of Medicine or Surgery have greater improvements, of late years, been made, than in diseases and accidents peculiar to females. The unprecedented success attending the use of silver sutures, and the full method of Dr. SIMM in the treatment of *Vesico-Vaginal Fistulæ* is well known to the Profession; the improvement in diagnosis and treatment of various uterine affections, consequent upon

the use of the speculum, are still better understood, and on another page will be found an account of an improved method of operating for the removal of ovarian tumors, and, recently, the fact has been demonstrated beyond question, that Inversion of the Uterus, contrary to the highest authorities in the Profession heretofore, may be completely remedied, after continuing an indefinite period of time.

Our friend Prof. JAS. P. WHITE, of Buffalo, reports, in last No. of the *American Journal of Medical Sciences*, a case of complete Inversion of the Uterus, of six months' standing, in which, by manipulations, while the patient was under the influence of chloroform, a perfect reduction was effected during one sitting; and Dr. W. TYLER SMITH, of London, read before the Royal Medical and Chirurgical Society, in April last, as published in the *Medical Times and Gazette*, an account of a case of nearly twelve years' duration reduced by repeated and protracted efforts—the hand being introduced into the vagina night and morning, compressing and moulding the organ for about ten minutes at a time, and in the intervals between these manipulations the vagina was distended, and firm pressure exerted upwards by means of a large air pessary,—these means gradually dilating the os uteri, until, on the eighth day from the commencement, complete re-inversion took place, the subsequent recovery of the patient being perfect.

Dr. WHITE'S method of operation consisted in placing the patient with her hips upon the edge of a high bed, the limbs being separated, and each supported by an assistant; the operator, placing himself upon his knees before the patient, introduced his right hand into the vagina, firmly grasping the whole uterus, and continuing pressure to reduce its size, while a rectal bougie was placed against the fundus and kept in position by the palm of the hand, which at the same time was grasping the organ; an upward pressure was thus continuously made by that instrument, held in the left hand, until the compressed and

diminished organ passed through the os, followed by the bougie, which rested in the proper cavity of the uterus, and was grasped by the os, as was ascertained by the touch, and by the eye through a speculum. The bougie was held in its position until next day (perhaps unnecessarily, Dr. WHITE thinks, and in his conjecture we agree with him), when the os was found embracing the instrument pretty firmly, though it was without difficulty withdrawn, and the patient was left comfortable. With only moderate symptoms, such as sickness of stomach, neuralgic pains, leucorrhœal discharge, etc., the patient completely recovered, under the use of supporting measures.

From these, and a few other cases which have been reported, it may now be laid down as a principle, *That, in Inversion of the Uterus, at whatever time diagnosed, unless forbidden by peculiar circumstances, careful but persevering efforts should be made to effect a reduction ;* and that neither the operation of extirpation should be performed, nor the patient abandoned to her chances of death from irritation, hæmorrhage, and exhaustion, until the reduction in the particular case has been proved impossible.

Of the correctness of this principle we have had little doubt since a case which came under our observation, in Chicago, several years since.

A lady, the wife of a German Clergyman, came from the interior of Wisconsin for medical advice. She had been delivered of her first child about two years before, being attended by a midwife ; and, according to her account, as well as of that of her husband, the placenta was slow in passing away, the cord was pulled upon, and soon after a large tumor was found presenting between the thighs, from the surface of which there was a free hæmorrhage. A physician was, after some time, called in, who however gave no definite opinion of the case, and did nothing decisive ; the tumor at length receded within the vagina, frequent hemorrhages had continued up to the time

when seen, and the patient was in a very anemic, debilitated, and remarkably impressible condition. She was unable to walk, or even stand upon her feet, and was subject to frequent fainting fits and epiliptiform convulsions, brought on at any time by the slightest irritation—a dose of the simplest medicine, such as one of the mildest preparations of iron, would be followed by these nervous symptoms, of the most distressing character.

The history of the case indicated the nature of the difficulty, and an examination by the touch, the sound of Simpson, and the speculum, rendered the diagnosis positive.

The Literature of the subject, as contained in the standard works and the journals, was thoroughly examined, but nowhere was encouragement found for attempting reduction. The patient was certainly and rather rapidly wasting away; she was already too feeble and impressible, as we judged, to justify extirpation, and our efforts even at palliation were abortive. From the relaxation of the inverted Uterus, the comparative soft and yielding feel of its neck and os, we were however convinced that suitable manipulations, continued for a sufficient length of time, could the patient endure them, would result in a re-inversion, and we set about various plans for accomplishing that object. From the uniform testimony of authors, we supposed that no speedy course could be successful, though, since Dr. White's experiment, we now think it at least possible. The plan of a large air pessary was thought of, and one procured. We also had two or three wooden buttons turned of a cup-shape (rather shallow), intended to fit to and embrace the fundus of the inverted organ, with a socket made in the centre of the convex surface, so that, after its introduction edgewise, and adjustment over the fundus, a stem might be attached, by which pressure for any length of time might conveniently be made upwards. Our intention was to administer chloroform, and make repeated manipulations and pressure by the methods which

we should find from experience best borne and most effectual, until we have restored the organ, or proven that we could not accomplish it: we found, however, that the last quantity of chloroform produced such excitement, and such irregularity of breathing and of the pulse, as to excite the greatest apprehension for the patient, of her friends, and of her medical attendants, and the idea had to be abandoned. It was also found that the most moderate amount of manipulation which could be expected to have any effect, produced similar alarming symptoms, with fainting and convulsions, throwing the patient and all her friends into a state of the utmost alarm, which we could not control, and, indeed, in which we, to a considerable extent, participated; and with the greatest reluctance and deepest disappointment, we were forced to desist from all efforts at restoration, and abandon all hopes of even temporary relief to our patient.

Since that time (five years ago), we have been awaiting an opportunity to test the opinions we then formed of the possibility of restoring Inversion of the Uterus after becoming chronic, but no case has occurred to us. We have repeatedly spoken of the case, and of our plans and opinions, to various medical friends, but have never communicated them publicly, and are now rejoiced to have them proven correct by our energetic and enterprising countryman, Dr. WHITE, and by the distinguished Dr. W. TYLER SMITH. Dr. T. SCHNEIDER, a highly educated physician, then recent from Switzerland, saw the case with me, and participated in my hopes and disappointment. We should now no more think of abandoning a case of Chronic Inversion of the Womb, or resorting to the ligature, écraseur, or the knife, without attempting reduction, than we would cut for strangulated hernia before taxis had been tried.

We heartily congratulate Dr. WHITE in having realized in this matter what years ago we so ardently hoped for, but in which we were so bitterly disappointed.

ART. XXXIX.—Meteorological Register for Month of August, 1858.

By L. S. Horton, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometr			Hygrometer			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	9 P.M.	2 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	28·88	28·89	28·90	74	85	70	70	78	69	·679	·863	·622	·81	·71	·84	S. 1	S.E. 1	S. 1	9. a.m.		
2	28·90	28·89	28·90	74	80	70	70	72	66	·679	·677	·586	·81	·66	·79	S.W. 1	S.E. 1	S. 2		11. p.m.	3·04
3	28·90	28·90	28·90	72	85	75	70	72	68	·706	·609	·591	·90	·50	·68	S.W. 2	S.W. 2	S.E. 2			
4	28·90	28·90	28·92	75	87	75	71	73	69	·704	·636	·628	·81	·51	·72	S.W. 3	S.W. 3	S.W. 1			
5	29·00	29·02	29·08	76	90	75	68	74	64	·601	·623	·449	·64	·44	·51	S.W. 1	S.W. 2	S. 1			
6	29·12	29·15	29·10	80	94	80	68	74	71	·524	·569	·637	·51	·35	·62	S.E. 1	S.E. 1	E. 1			
7	29·10	29·10	29·05	82	87	73	70	70	68	·572	·504	·618	·52	·39	·76	S.W. 1	E. 1	S.E. 1	3.15 p.m.	2. a.m.	·16
8	29·08	29·08	29·10	74	94	78	60	73	69	·331	·528	·588	·39	·33	·61	S.W. 1	S.W. 1	S.W. 1	6.15 p.m.	7. p.m.	·04
9	29·10	29·10	29·10	80	96	81	70	75	65	·598	·584	·403	·58	·34	·38	S.W. 1	S.W. 1	S.E. 1			
10	29·10	29·08	29·10	81	95	84	70	72	70	·585	·475	·545	·55	·28	·46	S.E. 1	S. 1	S. 1			
11	29·10	29·00	29·09	84	92	71	72	70	60	·623	·491	·371	·53	·29	·49	....	S. 1	E. 1			
12	29·00	29·05	29·08	72	88	72	60	74	61	·331	·650	·390	·39	·49	·49	E. 1	S.E. 1	E. 1			
13	29·10	29·15	29·16	75	90	72	62	67	66	·382	·353	·318	·44	·25	·22	E. 2	E. 2	E. 1			
14	29·20	29·20	29·05	75	88	68	61	72	62	·350	·582	·476	·40	·45	·69	S.E. 1	S.E. 2	E. 1			
15	29·00	29·00	29·02	74	85	72	61	68	67	·363	·456	·595	·43	·37	·75	S.E. 2	S.E. 2	S.E. 1			
16	29·05	29·08	29·10	75	88	72	68	71	68	·591	·529	·631	·68	·40	·80	S.E. 1	S.E. 1	S.W. 2			
17	29·10	29·00	28·95	78	88	74	70	72	64	·625	·569	·329	·65	·43	·28	S.W. 2	S.W. 2	S.W. 2			
18	28·92	28·90	28·95	72	80	62	62	69	59	·416	·561	·460	·52	·54	·82	S.W. 2	S.W. 2	S.W. 1	6.30 a.m.	8. a.m.	·04
19	29·00	29·00	29·00	75	62	58	70	59	·429	·666	·460	·77	·76	·82	S.W. 3	S.W. 3	S.W. 2	S.W. 1			
20	28·95	28·92	28·90	65	75	62	60	68	58	·451	·591	·429	·73	·68	·77	S.W. 2	S.W. 2	S.W. 1			
21	29·00	29·01	29·05	62	76	68	57	64	62	·399	·436	·476	·71	·48	·69	S.W. 2	S.W. 2	S.W. 1			
22	29·10	29·12	29·12	62	75	68	60	66	60	·491	·519	·438	·88	·59	·68	S.W. 1	S.W. 1	S.W. 1			
23	29·15	29·25	29·20	65	70	65	58	62	60	·389	·449	·451	·63	·61	·73	W. 3	S.W. 3	S.W. 1			
24	29·18	29·18	29·15	68	75	65	60	64	58	·411	·449	·389	·60	·51	·63	S.W. 1	W. 1	S. 1			
25	29·20	29·15	29·12	68	75	68	66	70	61	·612	·666	·443	·89	·76	·64	S.W. 1	S.W. 1	S.W. 1			
26	29·00	28·82	28·70	68	76	65	62	72	62	·476	·731	·516	·69	·81	·83	S.W. 2	S.W. 2	S.W. 1	9.40 a.m.	11.50 p.m.	·88
27	28·74	28·68	28·69	68	72	58	60	67	50	·411	·595	·255	·60	·75	·52	S.W. 1	S.W. 1	S.W. 1	4. p.m.	1.30 p.m.	·02
28	28·67	28·67	28·68	52	50	49	47	46	45	·257	·258	·254	·66	·71	·64	S.E. 1	W. 1	E. 1	7. a.m.	10.25 a.m.	·16
29	28·68	28·67	28·68	49	52	50	44	47	46	·223	·257	·258	·63	·66	·71	W. 4	W. 4	N.W. 2	12.20 p.m.	8.15 p.m.	·05
30	28·69	28·69	28·72	51	62	56	47	56	50	·270	·369	·282	·72	·66	·62	W. 2	N.W. 1	N.W. 1			
31	28·78	28·91	28·91	56	68	62	50	62	60	·282	·476	·491	·62	·69	·88	N.W. 1	S.E. 3	S.E. 2			

Bibliographical Record.

A MANUAL O FPSYCHOLOGICAL MEDICINE. Containing the History, Nosology, Description, Statistics, Diagnosis, Pathology, and Treatment of Insanity. With an Appendix of Cases. By John Charles Bucknill, M. D., London, Licentiate of the Royal College of Physicians; Medical Superintendent of the Devon County Lunatic Asylum; and Editor of the Asylum Journal of Mental Science, &c., &c: And by Daniel H. Tuke, M. D., Licentiate of the Royal College of Physicians, London; Lecturer on Psychological Medicine at the York School of Medicine; and Visiting Medical Officer to the York Retreat. Philadelphia: Blanchard & Lea. 1858.

We have just completed the *reading* of the above volume of 536 pages—not the mere looking over of the title page and table of contents, and the perusal of a few pages to catch the author's style, but its faithful reading for the purposes of instruction and the formation of a deliberate judgment of its merits and value as a work for students and general practitioners of medicine who are often under the necessity of having the first charge of these unfortunate patients, and at a period when correct treatment is vitally important.

Never having made the subject of Insanity a speciality, and not professing to be familiar with all its literature, our opinion of this work will not possess the value and weight of one more devoted to such pursuits, yet, from the attention we have given to diseases of the mind in private practice, in visiting Asylums, and in the study of books and periodicals devoted to them, we feel authorized in

saying that the volume before us is one of great interest and of decided merit, and well adapted to the wants of those for whom it is designed.

Although there are numerous monographs, essays, and papers on particular departments of the general subject of Insanity,—such as its morbid anatomy, its diagnosis, its relations to crime, its causes, some of its special forms; some departments of its therapeutics or management,—such as blood-letting in the disease, the use of narcotics, of physical restraint, of moral treatment, etc.; particularly adapted to the wants of those who devote themselves to the treatment of the Insane in Asylums,—yet there is no other recent systematic treatise on Insanity, bringing its pathology and therapeutics up to the present date, at once comprehensive and sufficiently condensed to answer the requirements of the general class of medical men. This work therefore fills a hiatus—supplies a need which has long been felt, and which we are surprised, in this age of book-making, should have remained so long.

To fully fit any man for the chief charge of an Asylum requires, of course, a considerable amount of clinical knowledge, obtained in similar institutions, and no amount of reading, either of comprehensive works or of monographs, can supply its place; but the masses of the Profession can not obtain, and indeed do not really need, such instruction, though all well-educated medical men must have considerable knowledge of the nature and treatment of this as of other diseases, and can best obtain that knowledge by the study of systematic works, such as the present; for, as yet. the term of lectures in our Medical Colleges is so short, that a satisfactory exposition of this subject can not be given, without neglecting matters even more important to the student.

But we promised in our last to present an outline of the contents of this volume, and of some of the leading

doctrines at present held on the subject of which it treats, though time and space will allow of only the most imperfect fulfillment of this promise.

The first 286 of the 536 pages is written by Dr. TUKE, and embraces a Historical Sketch of Insanity among the Nations of Antiquity; Opinions of Ancient Medical Writers on the Treatment of the Insane; the Bearings of Modern Civilization upon Insanity; the Amelioration of the Condition of the Insane in Modern Times, especially in regard to Mechanical Restraints; the Definitions and Classifications of Insanity; the various forms of Mental Disease; and the Statistics of Insanity, embracing a Consideration of its Causes, both predisposing and exciting, Proportion of Recoveries and Relapses, its Mortality, and the proportion of Insane to Population in various Countries. These are all interesting topics; and the author has manifested in their presentation a commendable degree of industrious research, and of discrimination, taste, and ability.

It would give us pleasure to follow the author through his consideration of the Civilization of the Egyptians, Greeks, and Romans, and its influences upon the production of Mental Diseases compared with the present civilization; through his account of Examples in Ancient History of Insane Persons and those feigning Insanity,—including the feigned madness of ULYSSES and DAVID, and the real madness of SAUL, AJAX, ORESTES, and CASSANDRA; of PLATO'S opinion that prophetic power was divinely given to human madness; of the power of Bacchus to induce madness (a power which, alas! he still possesses—not, indeed, as was supposed by EURIPIDES, over those who refused his worship, but, as modern statistics show, over those who bow at his shrine); through his discussion of the question of Demoniacal Possession; his account of the allusions made to Insanity by PYTHAGORUS, HIPPOCRATES, and other Greek and Roman writers; the treatment recommended by

Hippocrates, Galen, and others of the ancients—indeed, through all the historical details which he so pleasingly portrays; but we must pass them over to present some few points of more strictly scientific interest and practical importance, the results of modern observation.

From numerous observations made among savages and people in a low state of civilization, and the statistics of the more enlightened nations, the conclusions are drawn, "that Insanity attains its maximum development in civilized society, remaining at a minimum among barbarous nations, among children and animals below man"; that the principal unfavorable circumstances in the higher conditions of society favoring Insanity are "the increased susceptibility of the emotions to slight impressions, consequent upon their constant cultivation—the abuse of stimulants, and the overwork to which the brain is subjected, especially in early life, by an over-wrought system of education—the higher emotions or moral sentiments, the lower propensities, and the intellectual faculties, being thus all subjected, separately or combined, to an amount of excitement unknown to savage tribes," but "that, inasmuch as all civilization is, up to the present time, to be regarded as imperfect and transitionary, it does not follow, from the foregoing, that civilization, carried out to its proper development—a civilization which should exactly temper the force of the emotions, moderate intellectual exertion, and banish intemperance, would generate mental disease." Although the author expresses the belief that even such a state of society (which he fears never will be realized), would present greater danger to the integrity of the great centre of the nervous system than a state of barbarism, yet it seems to us, if man was designed for a high state of intellectual, social, and moral development, when that state is fully attained, and he has learned to obey all the laws of his higher being, physical as well as intellectual and

moral, there will be the greatest probability of a sound mind in a sound body being preserved.

Although a few of the ancient medical writers, among the most conspicuous of whom was CELIUS AURELIANUS, who flourished about 1800 years ago, taught with much perspicuity the true and humane principles of management of the Insane, yet these teachings were entirely overlooked until about the close of the last century, when PINEL, repudiating the doctrine that chains, whips, darkness, and solitude were the only remedies, liberated fifty-three of the patients confined in the Bicêtre of Paris, from the heavy irons which were then thought necessary to restrain them; and it was not until 1837 that, in the Lincoln Asylum, England, under the management of the House Surgeon, Mr. HILL, sustained by his superior, Dr. CHARLESWORTH, that the principle was asserted and the experiment was tried of abolishing mechanical restraints altogether; and two years afterwards Dr. CONOLLY, of the Hanwell Asylum, carrying out the practice on a larger scale, showed the practicability of such a course; and his experience up to the present time has confirmed him in the opinion "that, with a well-constituted governing body, animated by philanthropy, directed by intelligence, and acting by means of proper officers, with due authority, there is no Asylum in the world in which all mechanical retraints may not be abolished, not only with safety, but with incalculable advantage." Indeed the prevailing sentiment among the wisest and best who have given attention to the subject now is, that, excepting in a very few rare and extraordinary cases, the system of non-restraint is both practicable and best, and within a very few years this has become the general practice, at least in England and this country.

Many definitions of Insanity have been given or attempted by those who have written on the subject, but all are more or less defective, no one being free from objections, and at

the same time sufficiently comprehensive to embrace all cases—a description of all its different forms being alone adequate to give a full idea of its nature. If the word Insanity was made to embrace every deviation of the mind from its normal condition, it would perhaps be sufficiently defined by calling it "Mental Unsoundness," though it must be confessed that even then scarcely any adddditional fullness would be given to the idea by the use of the synonym ; but as such abnormal conditions and actions of the mind as occur in the delirium of a fever, and the inebriation of alcoholic excitement are excluded, something further is required to prevent positive errors, and that something, in no brief sentence, can be reached. The idea of *disease*, however, as Dr. TUKE justly observes, should be regarded as one essential condition ; in other words, "Insanity is a condition in which the intellectual faculties, or the moral sentiments, or the animal propensities [and we would add, the power of the will], one or all, have their free" and proper "action destroyed by disease, whether congenital or acquired."

If the nervous system and its great centre, the brain, be the organ of the mind—the only means of its manifestation in this state of existence (which all will admit)—it can not be far from the truth to regard Insanity as a disease of that nervous system (of the brain) producing effects of a peculiar kind upon one or more of the mental faculties (intellectual, emotional or determinational), those temporary morbid conditions arising from fever, acute inflammation, the action of narcotics, etc., not being usually embraced by the term.

Believing as we do that the Will is a distinct power or faculty of the mind, as clearly recognizable as an independent faculty as any other of the mental powers, we regard Dr. BUCKNILL'S definition as near the truth as any other which we have seen, viz.: "A condition of the mind

in which a false action of conception or judgment, a defective power of the will, or an uncontrollable violence of the emotions and instincts have, separately or conjointly, been produced by disease"—and he might have added, of the organs of those faculties. But as already intimated, it is not in definitions but in descriptions, and especially in observations of the Insane that a comprehension of the true characteristics of Insanity are to be found.

Not only are the definitions of Insanity unsatisfactory, but from its peculiarly diversified characters, its classifications, and the designations and arrangements of its different varieties, are imperfect. Dr. TUKE gives a large number from various authors, concluding with what he regards as an imperfect one of his own, based upon metaphysical divisions, arranged under three general heads, viz.: Diseases, first, of the Intellect; secondly, of the Moral Sentiments; and thirdly, of Propensities—and, under each of these, two orders. Under class first—Diseases of the Intellect—is order first, Development Incomplete, embracing Idiocy and Imbecility; and order second, Invasion of Disease after Development, embracing Dementia, Illusions, Delusions, and Hallucinations.

Under class second—Diseases of the Moral Sentiments—order first, Development Incomplete, embracing Moral Idiocy and Moral Imbecility; and order second, Invasion of Disease after Development, including Moral Insanity, Melancholia of various kinds, and Exaltations.

Under class third,—Diseases of the Propensities—are, order first, General, embracing Mania (usually a disorder of all the faculties); and order second, Partial, embracing several varieties, as Homicidal and Suicidal Mania, etc. If to this he had added a fourth class,—Diseases of the Will—all the divisions of the mind would have been embraced, and the classifications would, in our judgment, have approximated more nearly to completeness. It can not be

denied, however classifications may be made, that the Intellect, the Moral Sentiments, the Propensities, and the Will may each, separate or all together, be diseased, or any two or more, to the exclusion of the rest. Thus a large number of combinations may be produced, and as the different faculties may be affected in different modes and in different degrees, an indefinite variety of cases exists.

Though the above arrangement of Dr. TUKE is presented as an approximation to a metaphysical classification, as a practical division for treating the subject, adapted to the ordinary varieties of Insanity recognized and named, he arranges the different forms under the heads of Idiocy; Dementia—Primary and Secondary; Delusional Insanity—of a Melancholic, Exalted, and Destructive Character; Emotional Insanity, embracing Melancholia, without delusion, Mania, with general extravagance of conduct, Moral Insanity of Prichard, Mania, with disposition to Homicide, to Suicide, to Theft, to Burning, etc., and lastly, General Mania, Acute and Chronic. All of these may be complicated with General Paralysis or with Epilepsy.

Our author then proceeds to a more particular consideration of the different forms of Insanity enumerated in this latter arrangement, and in the order there named; but it is impossible, within our limits, to give even an outline o these various sections. On one subject only can we pause. Much has been written of late upon the subject of Moral Insanity, and as the existence of such a variety of the disease has been denied, and even ridiculed by many, a few words respecting it may not be without interest.

The term "Moral Insanity" as used by Dr. PRICHARD, of England, whose work has long been before the Medical Public, differs somewhat in its signification from that which among American physicians and the public is understood by it. The able writer referred to, applied it to "Mania, with general extravagance of conduct," whereas it

seems to be more generally understood to imply such perversion of the emotions, propensities, and moral feelings, by disease, as to lead to extravagant or improper but irresponsible conduct, without the existence of delusions or lesion of the intelligence. Indeed, some passages from Dr. PRICHARD seem to admit the above as a proper distinction, but he makes the term embrace a somewhat wider range of cases—cases where there is so much general extravagance of conduct as scarcely to be considered compatible with a sound intellect. That there is a certain, and even an intimate connection between the different faculties of the mind there can be no doubt, but yet that they are so distinct as that one or a few may be disordered in action, or even suspended, without perceptibly involving the rest is equally true; and if the moral feelings are capable of being distinguished from the intelligence, we should conclude they were capable of being diseased while the intellect preserved its integrity. That such is sometimes the case, seems to be in accordance with the most enlightened observation; and had it not been for actual or apprehended misapplication of this doctrine to cases of criminal conduct where there were no sufficient evidences of disease destroying free action and consequent accountability, it would not have been denied. It is by no means inconsistent with any rational views, or even plausible theories of mental philosophy. It can not be denied that the propensities and sentiments—the moral perceptions and feelings—are integral portions of our mental constitution; and that they, as well as other mental faculties, are dependent for their manifestation, in this state of being, upon the brain; and, whether particular faculties manifest themselves through particular portions of the brain or not, it is certain that the brain may be so diseased as to interrupt or pervert the action of one faculty or set of faculties without disturbing the rest. There is no evidence that the moral faculties serve as ex-

ceptions, in any sense, to this principle; but, on the contrary, the evidence, both of reason and observation, shows that the moral powers may be perverted, the moral sense be overcome, and the moral conduct led astray beyond the power of free control. When this is the result of disease, and not of willful and vicious indulgence, however acute be the intellectual perceptions, or accurate the powers of reasoning—however free from extravagance the imagination, or sound the judgment—the patient is insane, and should be treated as such. Should the case be clearly made out by competent proof (though the burthen of proof should be with the party alleging Insanity, and we think, should be clear and satisfactory beyond a reasonable doubt), the Asylum, rather than the prison, should claim the unfortunate victim—the physician, rather than the executioner, should take charge of the case.

To sustain the facts upon which these conclusions are based, a large number of cases and names are cited by Dr. Tuke; and the conclusions are shown to be in accordance with the opinions of such men as Rush, Ray, Hoffbauer, Prichard, Esquirol, Woodward, Davey, Marc, Hahne, Williams, Carpenter, Pinal, and others also cited by our author. Dr. Bucknill, in the subsequent portion of the volume, also strongly advocates the same view.

The bearing of these views upon some of the questions which have recently agitated the Professional and public mind of this country will readily be seen, and while we would by no means encourage those frequent and frivolous pleas of Insanity to shield the guilty from deserved punishment, we would do what we could towards preventing the victim of disease from becoming also the victim of just but misapplied laws.

While believing in the existence of Moral Insanity —of the perversion of the moral feelings and propensities by disease—yet we think it seldom occurs in such a dis-

tinct form as to show no signs of intellectual abnormity; and in all cases of violation of law, the presumption should be that criminality exists, which presumption should only be removed by competent proof. Thus, while public justice is vindicated, humanity is not violated.

The concluding chapters of Dr. TUKE'S portion of the work is on the *Statistics of Insanity*, embracing a discussion of the relative frequency of its various Causes, predisposing and exciting; the proportion of Recoveries and Relapses; the Mortality of the Insane; and the Proportion of Insane to Population in various Countries. We are not surprised to find from these tabulated statistics that, among the Physical Causes of Insanity, *Intemperance in Alcoholic Drinks* occurs from two to three times as frequently as any other, and that among the moral causes, *Domestic Troubles* is by far the most frequent.

On the subject of recoveries it is found that, of all the cases admitted into Asylums during a long period, from forty to forty-five per cent. is the average. It should, however, be remembered that of *recent* cases admitted a much larger proportion recover, though relapses not unfrequently occur. These statistics also show that the proportionate mortality of the Insane is much greater than the Sane, though it is not as clear that the Insanity itself, aside from the causes which, while producing it, injures the constitution, materially shortens life.

We have thus followed Dr. TUKE through his part of the volume before us, and must reserve till another number a review of Dr. BUCKNILL'S part, on the still more deeply interesting subjects of the Diagnosis, Pathology, and Treatment of the Disease. A. B. P.

Editorial Department.

The Nashville Medical Journal, and its Strictures upon the Report of the late Committee of the American Association on Medical Literature.

Our friend Dr. Bowling, of the above journal, after occupying eight pages in a rambling comico-serious reply to our article in the August No., closes by saying:

"After the explanation of Dr. Palmer, we believe he intended no wrong to Dr. Campbell, and of course was influenced by no wrong motive; and we hope and believe that, with equal charity, he will exonerate us from any intention willfully to misrepresent him. We should be extremely sorry for any occurrence to disturb the pleasant harmony of our relations."

Taking this as a truthful expression of his views and feelings, as we have no doubt it is, we acknowledge the retraction as satisfactory, and cheerfully state that now, as before this expression, we have sufficient charity to believe that he did not intend willfully to misrepresent us; and we fully reciprocate the wish that nothing may disturb the pleasant harmony of our relations.

After making this statement in all sincerity, Dr. Bowling must allow us to present from *our stand-point* a view of some of the other portions of his article now before us. While entertaining not the least bitterness of feeling, we must nevertheless use such plainness of language as to be distinctly understood, while, like Dr. B., we shall endeavor not "to be swerved a hair's breath from the air-line of public duty by any consideration of private friendship."

He commences by making himself merry over our description of the emotions we experienced when reading his charges of unfairness, etc., and intimates, by telling the old familiar story of Col. CROCKETT, that we were "coming out the same hole we went in at,"—beginning and ending, as we did, in "surprise." This, we think, is the most amusing part of his article, and we confess the awkwardness of our language gave some show of propriety to his criticism. But, we must inform our friend, that, after reading over his last article, we still find ourselves not out of that same hole of "surprise"; we are, in fact, as deeply in as ever, but now, without the surprise being mixed up with anything like indignation—it is associated with feelings more nearly akin to such as in our boyhood we experienced when witnessing, in a country circus-ring, some specimens of ground and lofty tumbling. We intend by this no offense. Our friend likes to vary his more serious labors with occasional literary antics; and we confess that, when they are devoid of all uncharitableness, we often enjoy them. We should, on the present occasion, let them all pass, were there not some statements interposed, involving others with ourselves, which require a notice. We have been particularly unfortunate in not pleasing Dr. BOWLING as a member of committees of the Association. He refers to our action as Chairman of the Committee on Prize Essays, two years ago, and seems to charge us of evincing, on that occasion, sectionalism; though he withdraws his charge in the late case, as by the foregoing quotation is shown. He makes inquiries as much as to say, our award did not give general satisfaction—did not satisfy ourselves; the paper had failed to pass a former committee,—that it was written in the East, and mailed in the Northwest;—"And, finally," he inquires, "did not the Chairman, Dr. PALMER, acknowledge that this trick of mailing the paper from a town in the Northwest, threw

him off his guard? And if this be true, does it not look slightly *sectional?*"

Now, in answer to these questions, we have simply to say that the package containing the Essay of Dr. HARTSHORN was post-marked as coming from a town in Ohio, for what reason we do not know—probably to conceal from the committee, not only who was the author, but where he lived. He may have had the same suspicions of sectionalism as seem to haunt Dr. B. This fact, in consequence of some remarks made on the subject at the time, was mentioned, *in private conversation*, to some gentlemen; but, if it is meant to be intimated that we, at any time, said that if it had been known by the Committee that the paper came from Philadelphia, or any other place, the same award would not have been made, the grossest injustice is done that Committee. The duty, in this case, was not performed by the Chairman alone. He had colleagues who were able and willing to do their part. There were gentlemen associated with him whose opinions on Physiological questions are entitled to be regarded as highly as those of any others in the land. The opinion was unanimous in favor of the award made. Whether the Essay was rejected by a former committee or not, we do not know. That something of the kind was said, or that it was represented as having been written for another occasion, we indistinctly remember; and we also indistinctly recollect of replying that we had no means of knowing these things, especially as the paper had a western postmark, while originating in the east; and very likely said, we were not, in consequence, on our guard; but we certainly did not suppose that years afterwards this private, and, as we think, innocent remark, would appear in a public journal, separated from its connections, and out of it be manufactured a charge of sectionalism! We must repeat, that this course of our friend surprises us; and it

would not be complimentary to him to say that it was in accordance with what we would have expected. It is due to ourself and the truth, to declare, that this intimation of sectionalism is as totally unfounded in truth as was the other. We speak not of Dr. B.'s motives or intentions — we scarcely think he means seriously to charge us with an offense in this matter; — but we must deny, let insinuations or charges come from whatever source they may, that we have ever, in any of our public professional acts, been governed by local or sectional feelings.

Hitherto, in this and our former article, we have avoided any expression respecting the merits of Dr. CAMPBELL'S papers. It is not denied by Dr. B. that the sum and substance of them have been published in the Transactions of the Association. The one-fifth not thus published, as we understand the subject, consists of correspondence, explanations, etc. The great matter was the Prize Essay, and the alleged discovery of the Excito-Secretory System of Nerves. Of this, we have expressed an opinion in the *Peninsular Journal*, months ago, and have as yet seen no reason to change that opinion. We are quite willing to await the sober judgment of the Profession upon this subject, at home and abroad. The physiology of the nervous system is undergoing, at the present time, a thorough *experimental* investigation by Dr. BROWN-SEQUARD and others, which may throw new light upon other theories besides those of Dr. CAMPBELL. The ultimatum of truth has not yet been arrived at in this matter.

As to the statement of Dr. BOWLING, that he "neither knew nor cared whether Dr. EVE'S work on Surgery was mentioned in the Report or not; that "his (Dr. E.'s) fame needed no outside props"; while he seemed to care so much about the paper by Dr. CAMPBELL being mentioned, we have little to say. We shall not attempt to decide whether Dr.

Bowling is indifferent to the rights of his colleague, Dr. Eve, or whether he thinks Dr. Campbell does need "outside props." This matter the three gentlemen must settle among themselves.

After setting our friend right on one other subject, we shall close this already too long article.

Dr. Bowling says we have classed ourself among the *Wise*, and reads us a long homily on the subject, making a too familiar use, as it seems to the correct taste of a good friend and a venerable man at our elbow, of the Sacred Scriptures. Our language which affords the occasion for this display of wit and taste is as follows — "It was deemed by us, and by others, as experienced and perhaps as wise as the Editor of the *Nashville Medical Journal*," etc. Now, however an astute grammarian, like our friend, would construe the passage, we *intended* to have the words "experienced" and "wise" refer to "others," and not to "us." Had we presumed to suggest that our humble self was *perhaps* as wise as the Editor of the *Nashville Journal*, we should doubtless have deserved as severe a castigation as he attempts to give us. We could not think of comparing our wisdom with his! — not at all; and especially after reading the following passage from his last, and finding how completely all our statements are demolished, notwithstanding the acknowledgement made in our first quotation from him in this article. Just hear him!

"The beautiful castellated structure in which the Editor of the *Peninsular*, in his reply to us, circumvallated himself, and which he fondly imagined impregnable, he finds, with all the experience and wisdom of the architect, is at last but a human product, and therefore imperfect. Short, alas! was the period vouchsafed to him during which he could stand on tiptoe upon its lofty battlements, and proudly defy its besiegers. The fiery breath of logic, like the blast of the bugle of Joshua dissolved its towering arches and lofty domes into the nothingness of ashes, leaving not even a broken column to point its place."

We are no longer "on tiptoe upon lofty battlements," but, on the contrary, are quite in dust and ashes, and will say no more. "Not even a broken column" is left! His "fiery breath of logic" has made a clean sweep! The *long* blast of the ram's horn has done the work — more effectually, even, than in the miracle of Jericho; for in that case "the walls of the city" only "fell down flat," — in this, the "towering arches and lofty domes" are all *dissolved* into the *nothingness of ashes"!!* Who can deny that there is power in blowing?

With the same kindly feeling with which we commenced, we now take leave of our frank, impulsive, and, we think, really kind-hearted friend; taking the liberty, however, in all humility, from our stand-point, to suggest to him a little more carefulness in the future indulgence of his fancy.

A. B. P.

A New Hospital.

We take pleasure in noticing that the efforts of our brethren in Buffalo have been eminently successful, in establishing the Buffalo General Hospital. And, in this connection, we would remark that these noble charities are almost always the result of the zeal and enterprise of medical men. If we except the charities of the Catholic Church, there is hardly a Hospital called into existence which has not been largely indebted to the efforts of medical men, in conception, progress, and final success.

Our brethren of Buffalo have been persevering indeed, and are now rewarded by the consciousness of having accomplished much good. Eleven years since, they succeeded in organizing, under a special charter, but failed in obtaining an appropriation from the State; consequently, the enterprise was unsuccessful. The next year, the Hospital of the Sisters of Charity commenced its useful and charitable

career. This institution, for a time, supplied the wants of the city; but, in 1854, the need of another Hospital called forth another effort. Urged on by the medical men, a board of fifty trustees, with Millard Fillmore at its head, was organized. This stupenduous Board had stupenduous notions; $100,000 was deemed necessary to commence operations. Inability to obtain such a sum caused another failure. Still not disheartened, our brethren labored on. Deeming the former committee too unwieldy, they obtained the interest of nine citizens noted for activity and public spirit. These men organized December 12th, 1855, solicited and obtained subscriptions from the citizens of Buffalo to the amount of $20,000. During the session of the Legislature of 1857, they obtained an appropriation from the State of $10,000. On the 26th of June last, the fruit of their efforts was dedicated to the relief of the deserving and disabled poor, with appropriate ceremonies. The wing now erected comprises about one-third of the plan, and is capable of accommodating one hundred patients. Its medical staff is composed of three Attending Surgeons and three Attending Physicians, with a like number of Consulting Physicians and Surgeons.

We congratulate the Buffalo Profession on the success of the enterprize, and commend it for the part it has borne in the matter.

Brethren, and citizens of Detroit! where is our City Hospital? That of the Sisters of Charity is productive of much good; but it is totally inadequate to the relief of *all*, in the time of prevailing disease. The U. S. Marine Hospital admits sailors only. We have a population of about 80,000, comprising the usual proportion of destitute sick. Every physician knows (and probably physicians only know) how very many, suffering under the combined influences of disease and absolute poverty, there are in our very midst, to whom it would be but an act of common

humanity to open to them the doors of an undiscriminating Charity-Hospital. Such an Hospital the City of Detroit needs! Such an Hospital the State of Michigan needs! There are scattered throughout the State many cases of chronic disease which can not be properly cared for in the homes of the poor, and in the absence of experienced nurses. Many instances also occur which require such surgical treatment as can be had only in a Hospital, except at great expense. It is the duty of the State to provide for these.

There are only three methods, which occur to our mind, by which we can, under our Constitution, organize a Hospital. Our Constitution prohibits the granting of any special charter. The State, however, can erect and control a State Hospital. The city can organize an Almshouse Hospital. Individuals can organize a Medical College under the General College Law, and, for the purposes of affording practical instruction, can attach thereto accommodation for the care of the sick. Which of these three plans promises the greatest success? We have great hopes in the City Almshouse plan, but, in the event of its failure, the last plan above named is open to us. *But no plan will work alone.* Any plan requires pushing; it must be urged on; and the history of Hospitals shows that the initial steps usually are taken by the Medical Profession.

Brethren, here is work for us. Suffering humanity calls upon us. Let us not shrink from the task, but, however unpromising, let us arouse ourselves and go to the good work with brave hearts and clean hands; so shall success attend us, and a noble charity be established. G.

Selected Articles, Abstracts, &c.

On Natural and Artificial Lactation.

By Wm. Henry Cumming, M. D.

Food is necessary to the growth and development of plants and animals. Generation, then, is not merely the quickening of a germ; it requires for its success a supply of material, to be appropriated by the germ in building up its proper organization. In most animals, the yolk furnishes a limited amount of nourishment, usually exhausted before the young animal has reached that stage of development at which he can use the ordinary food of his race. This deficiency of the yolk-food is supplied in various ways in the various classes of animals.

Insects furnish to their young very little yolk-food. The larva is very far from the perfect development of his kind; but, having a powerful digestive apparatus, and finding food near, he eats, and thus obtains materials for further growth. Having done this he becomes a pupa, re-entering thus the embryotic state, and there completing his development, comes forth the perfect insect.

We have said that he finds food near. This may occur in different ways. The silk-moth lays her eggs upon the mulberry tree; the larva feeds upon its leaves. He eats enormously, sheds his skin several times, attains at length his full growth, spins his cocoon, and then in the stillness of apparent death, carries on those further changes, for which ample materials have been secured during the larva state.

The bee, on the other hand, lays up in cells an abundant provision for the larva, by which he is carried through his later transformations.

Many insects deposit their eggs in the water. The larva there finds himself surrounded by smaller organisms, which he devours. The larva of the mosquito is an example of this mode of nutrition. Having passed through the necessary changes, he leaves the water, spreads his wings, and thenceforth lives by sucking the juices of plants and animals.

In the frog, the yolk-food is very small; and the tadpole, a little fish-like animal, swimming by means of fins, breathing by means of branchiæ, is very unlike the air-breathing, four-legged, leaping, insect-catching pa-

rents. He is in truth a reptilian larva; he eats largely, and grows rapidly; without becoming torpid and inactive, he undergoes great changes of structure, fitting him for his future mode of life.

Many birds leave the egg in a very helpless state; unable to walk or fly, they are dependent, for a longer or shorter period, on parental care. The parents supply them with worms, grubs, insects, etc. Some birds feed their young by vomiting into their open mouths half-digested food.

The gallinaceous birds here deserve especial notice. Many of them leave the egg in a state of entire independence of the mother for food. The yolk-food has in these cases sufficed for the entire development of the bird to this advanced stage.

The eggs of insects are deposited in various localities; some left on trees, some buried in the earth, some dropped in the water, some carefully deposited in cells. There is one other mode which must now be mentioned. The bot-fly deposits her eggs upon the legs of horses, so that they may be licked off, and thus carried into the stomach; there, under the influence of heat and moisture, they are quickly hatched, and the larva being provided with hooks, fixes himself firmly to the walls of the stomach, in which situation he lives by endosmosis. Having thus accumulated a sufficient amount of material for further development, he lets go, and is carried along with the refuse food, and discharged from the body of the animal, to undergo his further transformations in a different locality.

Now, in the case of this insect there is a striking analogy with the second stage of mammalian development; the egg leaves the ovary, but instead of being laid upon the earth, or in the water, a warm place is provided for it in the midst of a highly vascular organ. Its yolk-food is soon exhausted, but not before another mode of supply has been found. It has no hooks, with which to fasten itself to the walls of its new abode, but it is upheld by the desidua, until other arrangements are made. The vilous prolongations of the chorion increase its absorbing surface; and here for various terms, in various animals, it grows by endosmosis from the mother's blood. Various modifications of this process are found, and various degrees of development are thus attained. In no case, however, does it proceed so far as in the gallinaceous kinds; no one of the mammalia is at birth independent of the mother for food.

To those who have observed the various domestic animals, this difference of development at birth is familiar; the calf, the colt, the pig, the kitten, the rabbit, the rat, are well-known instances. But we have not yet reached the lowest extreme of intra-uterine development; far below, among the implacental mammalia (the monotremata and the marsupials), we find the embryo driven forth from the womb, after a short stay, and rudely and perilously (as we should think), transferred to a new abode, and to a new mode of nutrition. We have spoken of the tadpole as a reptilian larva; here we may fairly say that we have found one among the mammalia. This embryo has just one-thirtieth of the adult length, and five hun-

dred thousandths (·00005) of the usual adult weight. These proportions would be represented by a human embryo 2¼ inches long, and weighing 48 grains. The human embryo at three months is certainly much more developed than the young marsupial at birth. And having now done with external endosmosis, he must *drink* for his life. The nipple does not merely conduct the milk into his mouth, but forces it by muscular contraction into his stomach, deglutition being impossible in his low condition. As in his previous state, the mother's blood was brought into contact with the absorbing chorion, so now is the mother's milk, without any effort on his part, presented to the absorbents of the stomach. In view of his rudimentary state, a wonderful provision has been made whereby he still receives warmth from his mother's body; the marsupial sack contains and shelters him. Thus cherished and nourished, he is safely carried on to the independent state.

And here let us pause and look at this marsupial embryo, that we may see what lactation is. He has advanced about one-fifth of the way from conception to the independent state; four-fifths of the journey are yet before him. His sole reliance now is on his mother's milk. Not only must the milk do for him what it does for other animals, but it must perform the far more delicate and difficult work of bringing him through the intermediate embryotic condition. Here, then, in the marsupial, we see lactation in its highest manifestation. Here, too, we see plainly that it is the complement of ovarian and uterine nutrition, and that it must, therefore, vary in extent and influence inversely with the sum of these.

The nutrition of the germ, until it has reached the independent state, is thus seen to be carried on in four ways:—

1st. Simply as in the chicken, by the absorption of the yolk-food.
2d. The yolk-food being insufficient, by means of additional nutriment furnished by the parents, as among the greater number of birds.
3d. The yolk-food being very small, by additional nutriment obtained by the larva during his active term. This mode we have found among reptiles as well as among insects.
4th. The yolk-food being very small, nutrition is carried on by two additional processes, in both of which the nutriment is obtained from the body of the mother:—

1. By intra-uterine endosmosis.
2. By lactation.

These four modes may be thus indicated:—

1st. The ovarian.
2d. The ovarian and parental.
3d. The ovarian and larval.
4th. The ovarian, uterine, and mammary.

Lactation is confined to the last of these four classes. The facts relating to the other classes have been presented, that, by a wider induction, we might rise to a higher generalization, and view lactation as it appears to the general physiologist. We could not otherwise discern the exact aim and consequent extent and limits of this function, confined as it is to a few of the higher animals. Its object is now seen to be to carry on the work of development and nutrition commenced in the ovary and continued in the womb. We find it varying in extent and influence from the well-developed ruminant to the helpless, unformed embryo of the marsupial tribes.

What, then, is lactation, regarded as a function intimately connected with the development of the more highly organized animals? It is a part of the great process of generation, occupying from one to four-fifths of the entire period during which the quickened germ is dependent on the mother's body for nourishment. During its continuance, the increase in weight is from threefold to five hundred. It receives the fœtus in the condition and at the stage to which the uterus has carried him, and furnishes the materials necessary for his further growth and development.

But this is not all that lactation does. The most evident peculiarity of animal existence in the higher classes is voluntary motion and bodily activity. These demand large supplies of food. All movement in animals involves decomposition of the structures. To repair these losses, food is needed in much larger quantity than for the mere increase of the body. The ovarian and uterine life differs but little from vegetable existence. But when the young animal is driven forth from the womb, he enters upon a career of movement and activity. The respiratory movements must take place at birth, and gradually the voluntary muscles begin to act, and this action continues steadily to increase. The demand for nutriment is then much greater, during the period of lactation, than in the previous stage. The increase of the body is positively much greater, and the wants of an ever-growing activity greater still.

But we have not yet told all that lactation does. In the higher animals, the vital heat must be maintained in order to have vigor and activity. The temperature of the body must not fall below 100°, even when the external temperature is 150° lower. While yet in the womb, the fœtus partook of the mother's heat, and as there was no material increase of her own external surface, there was no necessity for any serious increase in the activity of her own heat-evolving functions. But now the young animal, with his proportionally immense radiating surface, is placed in the midst of very different circumstances. He has been introduced, perhaps, into an atmosphere the temperature of which is 75°, or 25° below his own standard. Perhaps, on leaving the womb, he finds himself floating in the waters of the frozen ocean. His heat must now be supplied from his own organization; he can no longer depend upon his mother's body for warmth. The internal combustion began with

his first breath. In order to its continuance, food must be supplied, containing oil, that, by the proper chemical union with the oxygen of the air, heat may be evolved sufficient to sustain his temperature. Without this fuel-food, the internal combustion will decline, the temperature of the body fall, and languor and death must follow.

In view of these things, we may now say what lactation is. It is the function by which food is supplied to the new-born child: food for growth; food for development; food to repair the losses caused by vital activity; food to furnish fuel for the internal combustion.

As a food-supplying function, therefore, it is the most efficient in the whole course of the generative process. No such demands are made by the fœtus on the mother's energies during the previous stages. Materials for growth are almost all that he needs until birth. But from this time onward until able to use the ordinary food of his kind, he looks to the mother for that nourishment which will enable him to maintain his temperature, to move, and to act.

The organs of this function are the mammary glands. They are found under many varied forms, from the cæcal follicles of the ornithorhynchus to the elaborate and complex mamma of the higher animals.

These organs have an intermittent functional activity. It does not at first commence until the termination of the previous stages of the generative process. It continues until its work is finished, or until another generative process begins.

The product of this mammary secretion is milk. Let us examine its physical and chemical qualities, that we may see its fitness to perform the great work of nutrition.

First, it is liquid, and can therefore be drawn from the gland in such quantity as is needed at the time. Its liquidity is indispensable, too, that it may be received by the young animal, and swallowed. In some animals, it must, in addition, be injected by muscular contractions into the stomach of the young.

Second, its temperature is that of the body of the mother, and consequently it has no chilling influence upon the stomach of the child.

Nor are its intimate structure and chemical constitution less suited to the wants of the young animal. Of these wants, the first in order of time is warmth. The radiation from its relatively extensive surface would soon lead to fatal results were there not a constant evolution of heat within. The milk supplies this fuel-food in such abundance that it is not usually all consumed. Accumulations of fat, the indices of this excess above the immediate wants of the young animal, commonly take place. His genial warmth and vital activity indicate the same sufficiency. Accurate observation shows that the temperature of the blood is fully maintained.

The next want of the young animal is material for growth and development. This material, needed from the moment of impregnation,

has been previously derived first from the yolk-food, and afterwards from the mother's blood. It is evident that the yolk-food of the chicken must contain all the elements necessary for the formation of the body of the bird; the germ, inclosed in the shell, being precluded from all possibility of gaining any other supply. The blood of the mother contains all the elements of her own body, and consequently all existing in the body of the child, and required for its growth and development. The embryo is thus placed, during the intra-uterine period, in close and constant relation with a liquid rich in all the elements of its own organization. These elements are at least sixteen in number, viz., oxygen, hydrogen, carbon, azote, chlorine, iodine, fluorine, sulphur, phosphorus, silicon, potassium, sodium, calcium, magnesium, iron, and manganese. But not only are the elements there, but the organic combinations, too, such as the fœtus requires: albumen, globulin, fibrin, hæmatin, margarin, olein, lecithin, cholesterin, serolin, chlorides of sodium and potassium, phosphates of lime, magnesia, potassa, soda, iron, and manganese, fluoride of calcium, and other most useful combinations. Thus placed in the midst of such supplies, the fœtus may well appropriate all the materials that he needs. But the time comes at length for a great change—the fœtus must be driven forth, and his contact with his mother's blood ceases from that hour. And yet his organization is incomplete; his structure is by no means finished. Let us turn to the case of the young marsupial, where the placenta did not exist, and where this uterine endosmosis has lasted only a few days. This rudimentary embryo, now in the marsupial sack, can no more dispense with the sixteen elements of his body than can the fœtuses of other animals during the latter part of their intra-uterine abode. The *blood* of the mother has done but little for him; her *milk* must do the rest, and, constituted as it is by Divine wisdom to suit his need, the young marsupial in all his feebleness is safe. No element of his body is wanting in this wonderfu secretion, and forced as it is by muscular contraction into his stomach, rich in all the materials of growth, his progress is rapid to the independent condition. Thus, then, from the necessities of the marsupial we might infer the general composition of milk. But the facts ascertained by chemical analysis far transcend all our conceptions thus acquired. Not only do we find all the elements, but many of them in the same combinations as in the body and blood of the child. Four protein compounds, containing oxygen, hydrogen, carbon, azote, and sulphur, several oils, and more than ten mineral salts, enter into its composition. And what is more remarkable still, one of these salts (phosphate of lime) is found in such combination with these protein compounds, that though itself insoluble, it may be readily absorbed. This union of phosphate of lime in large proportions with casein, with albumen, and with albuminose, is one of the most important and interesting facts in relation to the composition of milk. Indispensable

as it is in the formation of teeth and bone, it is thus, notwithstanding its insolubility, freely introduced into the system in an available form.

We have referred to the butter as fuel-food. In cow's milk the butter consists of ten oily substances: olein, butyrin, caproïn, caprylin, caprin, myristicin, palmitin, stearin, butin, and lecithin. In the actual state of chemical knowledge, it is impossible to state the precise use of these several oils. Whether they result from the original differences in the articles of food, but subserve the same purpose in the body, or whether they are there with reference to distinct and peculiar wants of the young animal is not known. Being deficient in azote, they do not probably contribute directly to the formation of the azotized tissues.

One of these oily substances, however, deserves and must receive more careful consideration. It has long been known that the nervous system has a peculiar constituent, a phosphorized oil. Its origin in the young animal has been discovered by GOBLEY, who found it in the yolk. So largely does it enter into this that it has been named lecithin. It has been found in human blood in the proportion of five ten-thousandths: in the blood of pregnant women ninety ten-thousandths have been found. and in the blood of the umbilical artery seventy-five ten-thousandths, This oil being the special constituent of the nervous system, is furnished by the blood for the functional use of the system and for its growth. It would therefore soon be exhausted unless a supply from without were obtained. In the event of such a failure, the most serious consequences might be expected. Not only would the nervous system cease to grow, and thus lose its relation to the rest of the body, but its activity would decline, and consequently the energy of all the functions. With a failure of nerve-force would coincide a failure of circulation, of heat, of digestion, of absorption, and of secretion. Indeed, every vital process would suffer from the deficiency of this energizing agent. And the evil would go on increasing. A weakened digestion would lead to a still further diminution of the already deficient energy, and thus by mutually depressing interactions, the decline would continue until the termination of life from inanition.*

* *Conditions of Calorification.*—What are these conditions? They are: 1st. Good air, *i. e.* air containing a due proportion of oxygen. 2d. Good blood, *i. e.* blood containing a sufficiency of combustible material. 3d. A sufficiency of good air in the pulmonary cells. 4th. A sufficiency of good blood in the pulmonary capillaries. These four conditions are indispensable to full calorification. If the air be deficient in oxygen, or be introduced in too small quantity, it will be in vain that the other two conditions exist. And if there be not enough of fatty matter in the blood, nor a sufficient impulsion from the heart, the former conditions will be of no value. Two of these conditions are chemical, relating to the composition of the air and of the blood; the other two are mechanical, relating to the performance of the respiratory and circulatory acts. These last are under the influence of the nervous system, and will vary with the nervous energy.

If then, heat is to be evolved in sufficient quantity, we must have not only enough oxygen in the air, and enough oil in the blood, but we must have a supply of nervous

But these serious and fatal results can not occur in a case of normal lactation. The needed lecithin is furnished by the milk in sufficient quantity to supply all the demands of the system. In cow's milk the lecithin forms three thousandths of the whole. A calf obtains from twenty pounds of milk (his usual daily allowance) about one ounce. An infant three months old receives about forty-six grains daily, or two pounds in the first year. This amount, when compared with the quantity existing in the nervous system, is very great. We see then that it must be for the most part expended in nervous action, not in the growth of the nervous system. And who that knows the almost incessant activity of young animals (when awake), can wonder at this large consumption?

The uses of the butter are thus seen to be: to supply fuel for the internal combustion, to furnish oil for the tissues of the body, and to supply the special constituent of the nervous system to be employed in its growth and activity.

So much uncertainty still rests upon the uses of the sugar in the milk, that we leave that matter untouched in this paper. It was once supposed to be merely fuel; but the tendency of physiological research is to assign to it other important uses.

The butter and sugar contain no azote, and are therefore ill-adapted to the development of the tissues of the body, which contain so much of this element. It is not known that the bodies of animals have power to transform an unazotized into an azotized compound. In the present state of chemical knowledge we are led to suppose that azotized combinations must of necessity exist in the food of animals. In milk, they form from one and a half to five per cent. of the whole—or from thirteen to thirty-three per cent. of the solid portion. This statement is made here for the purpose of showing that milk is not the weak

power to induce free respiration by means of muscular action, and strong contractions of the heart, that the blood may be forced rapidly and readily through the capillaries of the lungs. With full respiration and active circulation, a sufficiency of oxygen will be mingled with the blood to furnish an abundant supply of caloric. With deficient nervous power, this vigorous action of the muscles of respiration and circulation is impossible. All pathological observation settles this point. It is a wonderful fact, that butter contains not only the fuel, but the material necessary for its proper combustion. It is thus a self-regulating article. Is the supply of fuel small, the consuming power is proportionally reduced. With an increase of the consuming power, coincides a proportional increase of the material to be consumed.

From these facts we may readily understand how a child may be fat and yet be deficient in strength and in vital heat. Starch-fed children are often fat, and yet are languid and weak. The starch has been digested, but as it contained no azote, it could not nourish the tissues of the body; having no phosphorus, it could not supply the wants of the nervous system. It has thus failed to produce heat or general energy. Not so with butter. The lecithin excites the nervous system to efficient action, and all the functions feel its influence. And thus the butter-fed child is often less fat than one fed on starch. But in all that constitutes bodily well-being, he is far in advance.

To promote calorification, there is no equal to butter among the articles of food usually given to infants. It is probable that no substitute for it will ever be found.

food that many suppose. Adults among nomadic tribes depend upon it to a great extent, and find it a strengthening diet. The vigor and rapid development of young animals bear witness to the same truth. Indeed, it may be safely said that under no conditions of life is there so rapid and healthful increase as during the season when milk is the sole article of food.

The duration of this function varies greatly in different animals. In some of the marsupials it lasts four times as long as the term of gestation; in the ruminants only two-thirds as long as gestation. Thus compared, lactation is in the former as twelve, while in the latter it is as two. It is thus six times as long relatively. And this difference should not surprise us when we consider the different stages of development at which lactation commences in the two classes.

The nature of the usual food of the animal has doubtless an influence on the normal duration of this function. Where this food is difficult of digestion, the young animal must attain more general vigor before he can be safely weaned. The carniverous and insectiverous animals may therefore be weaned at a relatively earlier age than those using more refractory food.

[*To be Concluded in the November No.*]

Translations for The Peninsular and Independent.

By A. Sager, M.D.

NOTE RELATIVE TO THE INFLUENCE OF LIGHT UPON ANIMALS. By J Beclard.

The action of light upon the phenomena of vegetable life has for a long time attracted the attention of observers. The labors of Ingenhourz, of Sennebier, of Decandolle, of Carradori, of Knight, of Payer, of Mucaire, etc., have demonstrated that the luminous solar rays exert upon the respiration, the absorption, and the exhalation of plants, and consequently upon their general or local nutrition, as well as upon the direction of the stems and other parts of plants, a very manifest influence. But in what relates to the influence of light upon animal organization, science is much less advanced. The experiments of W. Edwards upon the development of the eggs of frogs and the metamorphosis of tadpoles (which, according to his researches, do not take place at all in the darkness, but only in daylight); the labors of Morren upon the development of animalcules in stagnant waters; lastly those of Moleschott (which demonstrate that the respiration of frogs, as measured by the quantity of carbonic acid eliminated, is much greater in light than in darkness), these are about all the positive data that physiological science possesses upon this subject.

During the past four years we have undertaken, in the laboratory of the Faculty of Medicine, a series of experiments relative to the influence of white light, and also that of the colored rays of the spectrum (which latter have not hitherto been studied), upon the principal functions of nutrition. The object of the present note is to present in a concise form some of the more important results of those experiments.

The nutrition and development of animals that have neither lungs nor branchiæ, and which respire by the skin, appear to experience very remarkable modifications under the influence of the diverse colored rays of the spectrum.

Eggs of the flesh fly (*Musca carnaria*, Linn.) taken from the same group, and placed at the same time under bell-glasses differently colored, all gave origin to larves. But if these are observed after four or five days, the development is found to be quite different in degree. The larves most developed correspond to the blue and violet rays. Those hatched under the green rays are the least developed. The development-influence of the divers colored rays will be represented by the following descending series, viz, Violet, Blue, Red, Yellow-White, Green. The larves developed in the violet rays were more than three times as large, length and thickness compared, as those which were developed under the green rays.

From this first result we were led to examine the function of respiration, which, while it best exhibits the quantity of organic metamorphosis, allows the results to be easily collected and measured. A long series of experiments upon birds has shown us that the quantity of carbonic acid formed in a given time is not sensibly affected by the differently colored bell-glasses under which they were placed. The same is true of small mammals, such as the bat. The surface in both classes being covered, light can not impress the dormal surface. Regnault and Reiset moreover have shown that gaseous exchange is in these animals reduced nearly to a nullity.

When we examine the influence of the different colored rays of the solar spectrum upon frogs in which, from the nudity of the skin, cutaneous respiration is energetic, we may ascertain facts that are quite remarkable. Our own experiments in that direction have yet been limited to the influence of the green and red rays. In the former, equal weights being compared, the quantity of carbonic acid is much greater than in the latter. The difference exceeds one-half in some cases, generally however it is about one-third or one-fourth.

In this result, the skin itself, and quite probably the color of the surface, exerts a marked and determining influence. If the skin be removed, and the experiment repeated under the same circumstances, the result obtained will be changed; the quantity of carbonic acid in the red bell-glass will be greater than that in the green.

The influence of the colored rays of the spectrum upon the propor-

tions of carbonic acid exhaled in a given time, is continued for some time after death, indeed until putrefaction commences, or until cadaveric rigidity ceases. Hence, fresh meat from the shamble, taken a day or two after the death of the animal, and when cadaveric rigidity has ceased, yields, for equal weights, the same quantity of carbonic acid when simultaneously placed under the different colored rays.

A few experiments upon the cutaneous exhalation of vapor show that (temperature and weight being equal) frogs lose from one-half to one-third less water in darkness than when submitted to white light. Between the influence of the violet ray and white light no appreciable difference exists in the quantity of water exhaled in a given period of time.

[*Comptes Rendus, March*, 1858.

M. CHAVEAU ON VASCULAR MURMURS.

Session 3d May.—M. A. CHAVEAU presented to the Academy an abstract of a memoir entitled "Mechanism and General Theory of Vascular Murmurs, deduced from experiments"; of which the following are the principal conclusions:

"Vascular murmurs are purely physical phenomena, that is to say sounds, subject to the ordinary laws of acoustics. Presenting the same essential phenomena, notwithstanding numerous shades of difference, they can justly be attributed to but one essential cause, and that of a mechanical nature.

"That cause does not depend directly upon the quality or the quantity of blood circulating in the vessels, and, consequently, not upon the tension or relaxation of the vascular parieties. Moreover, it does not reside in the asperities of the internal surface, when not connected with a modification of the calibre of the vessels.

"When a dilitation exists in the calibre of a vessel, a murmur may be produced when the blood arrives at the dilated part.

"A contraction, more or less extensive, in the course of a vessel, may also be accompanied with a vascular murmur, but this murmur is not produced either by the passage of the blood into, nor through, the contracted part of the vessel. It is only on the passage of the blood from the contracted portion to the part beyond it that the murmur occurs, and as this part of the vessel, in a normal condition, is regularly dilated, it follows that an essential condition of its production is the passage of the blood into a dilated portion of the vascular system.

"Two conditions are necessary to their production, viz., 1st, That the difference between the contracted and dilated portions of the vessel, whether this be absolute or merely relative, should be quite decided; 2d, That the transit of the blood through these parts should take place with considerable force.

"As in the case of all other sounds, molecular vibrations must be regarded as the immediate cause of these vascular murmurs. But, how and whence do these vibrations arise? Observation proves that when blood passes with considerable force from a contracted to a relatively dilated part, it produces a central current through the blood contained in the dilated portion. Now, we know, since the beautiful researches of SAVART, that every current of fluid produces vibrations that may be sufficient to produce a sound, and also agitate the orifice whence the current flows. In these cases, the vibrations of the intravascular current and the orifice of flow are clearly perceived by the finger, either in the interior of the dilitation or on its surface. These vibrations give rise to the phenomenon known as the arterial thrill, which is so intimately allied to vascular murmur that they may be said not to exist independently of each other. Like the murmur also, the maximum intensity of the thrill is perceived in the course of the current in the dilated part. It is propagated in all directions, but with characters too variable, in particular cases, to admit of discussion in an essay devoted to the consideration of general doctrines alone."

Surgical Abstracts.

BENDING AND PARTIAL FRACTURES OF LONG BONES IN YOUNG SUBJECTS.

Some nine months since, Prof. HAMILTON published in the *N. Y. Journal* a paper upon the above subject. His observations were founded upon experiments made upon the legs of chickens, and references also to cases in surgical practice. His experiments showed that the long bones of chickens may be bent to an angle of 25°, and immediately regain the straight form, dissection showing no lesion in the bone. *Inference:* The same may also occur in the bones of infants.

In practice, Dr. H. has seen fracture of one of the bones of the forearm and bending of the other.

Of partial fractures, Dr. H. remarks that he has observed seventeen of the clavicle, and thirteen of the radius or ulna. Of the seventeen cases of the clavicle, four only were attended by immediate spontaneous restoration of form. No examples of this latter peculiarity occurred among the partial fractures of radius or ulna.

It is now about a year since we observed an example of bending of both radius and ulna. The bones were abruptly bent at an angle 30° from a right line. We saw the case within ten minutes from the occurence of the accident. There was perfect freedom from swelling, so that a minute inspection of the bones was had. Smoothness of outline, immobility, and consequent absence of crepitus characterized the case. The bones, how-

ever, fractured with an audible snap, on an attempt to restore them to the straight form.

We think that in all cases we should prefer to incur the risk of fracture, rather than trust to the spontaneous gradual restoration of form, which generally follows in a greater or less degree. In the dissections made by Dr. H. a few days subsequent to the fracture, he found an ensheathing callus partially surrounding the bone, but absent upon the side where the solution of structure was effected.

REMOVAL OF AN OVARIAN TUMOR.

In the July No. of the *North American Medico-Chirurgical Review*, JOHN L. ATLEE, M. D., of Lancaster, Pa. (who by the way was among the pioneers in the operation of Ovariotomy, and has had much experience in such cases), gives an account of the successful "Removal of an Ovarian Tumor," in which the Ecraseur was used. The patient was an old lady, aged sixty, who had long been married, but had never borne children,—her menstruation having for the most part been painful and profuse. Her health for the latter period of her life had been pretty good, and her constitution was fair.

After several tappings, and the drawing off of considerable quantities of a highly albuminous fluid, the difficulty being diagnosed as a Multilocular Tumor of the left Ovary, on the 23d of March Dr. ATLEE proceeded to operate for its removal,—the day preceding the bowels having been freely evacuated, followed by the repeated administration of opium to keep them quiet, the patient in the mean time having been restricted to cold water.

The temperature of the room was raised to 80° F., and was steadily maintained at that point for several subsequent days. The bladder was evacuated, a mixture of ether and chloroform was administered, an incision made from an inch below the umbilicus to two inches above the pubis, the fascia and peritoneum successfully divided upon the director, the tumor exposed, the larger cysts evacuated by the trochar, the adhesions, which were but moderate, more carefully broken up, and the tumor found so large that the incision had to be extended an inch in each direction, in order to draw it out. The pedicle was found to be an inch long, four inches broad, and highly vascular; the Ecraseur was applied near the tumor, care was taken not to allow the colon to be drawn towards the chain, the lever was turned for half a minute, and a rest allowed of half a minute, when it was removed for the same time, six and a half minutes being thus required to secure it entirely. The cut or torn surface of the pedicle was sponged and examined, no hæmorrhage occurred, not even oozing; the external wound was brought together by *Silver Sutures*, supported by adhesive strips, a compress, and flannel bandages, and the patient was put to bed.

Little pain was experienced, the pulse was but slightly affected, ranging about 90; there was no nausea or vomiting then or subsequently; opiates were continued, cold water and ice allowed, the bladder emptied with catheter, very little discharge from the wound occurred, no redness around the silver sutures. They were removed on the seventh day, when the patient sat up out of bed, a better diet was allowed, and she progressed on to a speedy cure.

The bowels were moved on the ninth day by castor oil; on the fourteenth day she rode half a mile, and has remained perfectly well.

This is certainly a most favorable case, and shows, so far as one case can, the advantages of the Ecraseur, thus avoiding a ligature involving the peritoneum; and it also shows the advantages of the Silver Sutures, the high temperature of the patient's room, and the use of opiates.

The world does move—improvements in surgery at least are going on.

The proper use of chloroform and ether, of the Ecraseur, of the Silver Sutures, of a uniform and elevated temperature, and of the glorious article opium, diminish to a large extent, the terrors and real dangers of surgical operations. A. B. P.

IRIDECTOMY FOR THE CURE OF GLAUCOMA.

Græfe, a young surgeon of Berlin, has proposed and practiced the operation of iridectomy for the relief of glaucoma. The operation was undoubtedly suggested by the intra-ocular pressure which evidently exists in the disease in question. Critchett and Bowman practice and advocate the operation, while Jones and Mackenzie deem it "so opposed to the plainest principles of Surgery and common sense, and so little supported by its results, that we must confess our surprise at its having been so eagerly imported into this country." Directing attention, however, as it does to what they regard as merely "one of the *secondary* phenomena" in the disease, they think that it may revive the practice of puncturing the cornea and sclerotic. Prof. Beard of New Orleans has made the operation in one instance, which he reports in the *Medical News and Gazette.* The result in this case was favorable. Dr. B. also confirms Græfe's recommendation of it in chronic iritis, basing his confirmation upon experience.

ASCLEPIAS INCARNATA IN GONORRHŒA AND SYPHILIS.

Dr. Hauser of Georgia, in the *Atlanta Journal,* claims for the Asclepias great anti-syphilitic properties. In gonorrhœa, also, if Dr. H.'s views are correct, it falls little short of a *specific.* [?] He exhibits it in the form of Tincture — ℥ iv. of the bark of the root being macerated fourteen days in two pints of alcohol. Dose, a teaspoonful three times daily.

Pharmaceutical Department.

Proceedings of the American Pharmaceutical Association.

This Association was organized in the city of Philadelphia, in September, 1852, and has for its object the Advancement of Pharmaceutical Knowledge and the Elevation of the Professional Character of Apothecaries and Druggists throughout the United States. It is composed of 209 members.

The Seventh Annual Session of this Association commenced Tuesday, September 14th, at the Smithsonian Institute, Washington, D. C.

The members having been called to order by the President, Charles Ellis, of Philadelphia, the first business in order was the appointment of a Committee on Credentials.

The Chair appointed John Meakim, of New York, Richard H. Stabler, of Alexandria, and Alfred B. Taylor, of Philadelphia; who, after a few minutes, reported delegates as appointed to attend the meeting,—from the Massachusetts College of Pharmacy, New York College of Pharmacy, Philadelphia College of Pharmacy, Cincinnati College of Pharmacy, St. Louis Pharmaceutical Association, Baltimore College of Pharmacy, and from the Washington Pharmaceutical Association.

The Executive Committee reported the names of nine members, who had been elected during the recess.

The roll was then called, and between thirty and forty members answered to their names; which number was increased to about one hundred and twenty before the close of the meeting.

During the meeting, the Chairman reported the names of ninety-one gentlemen for membership, who were duly elected.

A committee having been appointed to nominate officers for the ensuing year, the Reports of Standing and Special Committee were presented.

The Report of the Executive Committee was read, and accepted.

The following Reports of Committees were read by their titles, and laid on the table:

Report of the Committee on the Progress of Pharmacy.

Report of the Special Committee on a Syllabus of a Course of Study appropriate to the Student of Pharmacy.

Report of the Committee on Weights and Measures.

Report of the Committee on the Preliminary Revision of the Pharmacopœia.

Report of the Committee on Local Unofficinal Formulæ.

An invitation was received from the Pharmaceutical Association of Washington, that the members visit Mount Vernon and the Tomb of

Washington on Thursday, the 16th inst.; which was accepted, and the thanks of the Association were tendered for the same.

On motion of Dr. Kidwell, an invitation to attend the sittings of the Association was extended to Professors Henry, Baird, and Craig of the Smithsonian; Commander M. F. Maury, of the National Observatory; Professors Curly and Clark, of Georgetown College; Professor Riley, of Georgetown; and D. J. Browne, Esq., of the Agricultural Department of the Patent Office.

The President then rose and delivered his Annual Address.

After an expression of thankfulness to Providence, he reviewed the work of the Standing Committees, alluded to the necessity of strict regulations as to ethics and contributions, and suggested that the ablest professional essay should be rewarded by an appropriate token of regard. He then proceeded with a detailed history of the foundation of the Association, and the causes that moved thereto, the principal being the desire to strengthen the hands of the United States authorities in preventing the importation of spurious drugs. The good work of repressing quackery, and raising the standing of the Pharmaceutical Profession, in which the Association has been engaged, was next alluded to in appropriate terms, and then followed a review of the proceedings of the Association at its various annual meetings for the past six years. He concluded as follows:

"My official relations with you as President of the American Pharmaceutical Association are about to close. Permit me to thank the members of the Association for this mark of distinction, and for their indulgence and courtesy extended to me during the past session. The duties which will engage our attention can not fail to be mutually profitable and interesting, —the past, in that respect, will be a guarantee for the future. There is a feature in these annual assemblies which must have impressed the mind of every member who has participated in the proceedings of former years—that of earnestness and zeal in the performance of the duties, of unity of purpose and entire harmony in conducting the business of the Association, embracing as it does the North and the South, the East and the West, in one common brotherhood. May we on the present, as on each succeeding, anniversary—if permitted thus to meet—endeavor to discharge the obligations which rest upon us, under a deep conviction (in the language of an eloquent professor, in relation to Pharmacy) that 'It is the sacred duty of every member of a liberal profession to rise at times above his mere personal and pecuniary interests, and to contribute somewhat of his time, his influence, and his abilities, to the common benefit of his profession.'"

On motion, adjourned.

SECOND DAY.

The committee who were appointed to nominate officers for the ensuing year, reported the following:

For President—John L. Kidwell, of Georgetown, D. C.

First Vice-President—Edward R. Squibb, of New York.

Second Vice-President—James O'Gallagher, of St. Louis, Mo.

Third Vice-President—Robert Battey, of Rome, Ga.

Recording Secretary—W. J. M. Gordon, of Cincinnati, Ohio.

Corresponding Secretary—Ambrose Smith, of Philadelphia.

Treasurer—Samuel M. Colcord, of Boston, Mass.

Executive Committee—S. S. Garrigues, of Philadelphia; H. W. Lincoln, of Boston; F. S. Walsh, D. C.; Edward Parrish, of Philadelphia; W. J. M. Gordon, Recording Secretary, *ex officio.*

Committee on the Progress of Pharmacy—Wm. Proctor, of Philadel-

phia; W. S. Thompson, of Baltimore; John Jackson, of Knoxville, Tenn.; W. A. Brewer, of Boston; Ambrose Smith, Corresponding Secretary, *ex officio.*

The above officers were severally elected.

Dr. Kidwell, the President-elect, was then conducted to the chair by its late occupant, and, in a few pertinent remarks, returned his thanks to the Association for their expression of confidence.

Reports from the Committee on Weights and Measures, the Committee on the Adulteration of Drugs, and the Committee on the Amendments of the United States Law regulating the Importation of Drugs and Medicines, were severally presented.

William Proctor, jr., chairman of the Special Committee appointed to report a Syllabus of a Course of Study appropriate to the Student of Pharmacy, submitted a Report, which he remarked had been prepared by the Committee, but which he did not think was sufficiently complete to be published among the documents of an Association so large and so distinguished as this; which, having at his request been referred to a committee for examination, was reported favorably upon, on account of the large amount of valuable information it contained, and referred to the Executive Committee for publication.

Dr. Guthrie of New York, then read the Report on Weights and Measures; which was in favor of the adoption of the decimal system.

Appended to the Report were the views of John Meakim, a member of the Committee, who advocated the adoption of the French decimal unit, but recommended the reduction of the number of division of measures of weight and capacity, adopting the gramme, and its increments and decrements of 100.

The Report on the Preliminary Revision of the Pharmacopœia was then taken from the table, and read by Dr. Meakim. A Report of a Sub-Committee on the same subject was likewise read by Frederick Stearns, and others by W. J. M. Gordon, John Meakim, and Israel J. Grahame. In this Report the divisions of the national codex, which were investigated, were thoroughly examined, and many new and valuable suggestions were given in regard to improvements and modifications in its manipulatory details, &c.

Dr. Guthrie then read a Report on Home Adulteration of Drugs, stating that the views were his own, and for them he was individually responsible. The Report reviewed, in a facetious manner, the numerous adulterations of the day, extending into all departments of trade. He could suggest no means of checking this tendency, except by elevating the Profession in point of education and moral feeling.

Dr. Meakim then read his Report on Local Unofficinal Formulæ; which was accepted, and took the usual course.

Dr. Guthrie then read his Report on the Amendments of the United States Law, regulating the Importation of Drugs and Medicines. This Report states that drugs which are examined and rejected on account of adulteration, instead of being destroyed, are sometimes re-shipped, and enter some other port where there is no inspector of drugs; by which means the present law is evaded, and rendered of no effect. A petition, praying such amendments as were required in order to render the law effective, had been presented in the House of Representatives, and had been referred to the Committee on Ways and Means, where it slept the sleep of the Capulets. The Report was accepted, and took the usual course.

The treasurer, Samuel M. Colcord, then submitted his Annual Report; which was read, and a committee was appointed to audit his accounts, consisting of Dr. Guthrie and Mr. Stabler.

On motion by William Proctor, jr., a resolution was adopted, providing for the appointment of a committee of two to propose and report, at a future sitting, a list of subjects to be referred to members; and the chair appointed Messrs. Proctor and Frederick Stearns as said committee.

The Association then adjourned until 3 o'clock P. M.

The Association met at three o'clock, pursuant to adjournment.

The Report of the Committee on the Progress of Pharmacy was then read by the chairman, Frederick Stearns. This lengthy paper reviewed the progress made during the past year in Pharmacy, and in the several branches of science and art accessory to it, including Chemistry, organic and inorganic; Materia Medica, and Toxicology. It also reviewed the progress made in Pharmaceutical Literature, in Educational Institutions, and Associations, giving also a list of the works published on matters relating to Pharmacy during 1857–8.

The Chair then introduced D. J. Browne, Esq., of the Agricultural Department of the Patent Office, who made some interesting remarks, giving an account of the success which had attended the efforts of that office in introducing foreign plants into this country. Among these were the olive, the fig, the prune, the cork tree, the verbena, and others. He also alluded to the chufa or earth almond, which had been analyzed by Dr. Charles T. Jackson, of Boston, with the following result:

Water	15·50
Fibrous matter	21·45
Starch	27·00
A species of sugar, like manna	12·25
Wax	0·50
Fatty oil	16·65
Mucilage, gum, with a little albumen	6·65
	100·00

He thought this would be a valuable production. Other plants were likewise alluded to, one of which was said to be a remedy for all wounds, and a cure for the bite of serpents, and another was excellent as a destroyer of vermin. Mr. B. also gave some interesting information with regard to the culture of the grape in the United States. He closed his remarks with an allusion to the species of bee which was to be found in Australia, that was destitute of a sting, and said that the natives would catch them, suck the honey from them, and then let them go.

On motion by Dr. Guthrie, the thanks of the Association were tendered to Mr. Browne, and also to the Commissioner of Indian Affairs, for the disposition which they had shown to co-operate in the objects of the Society.

On motion by Mr. Proctor, a committee of three was ordered to be appointed to report some plan for co-operation with the Agricultural Department of the Patent Office, and the Commissioner of Indian Affairs, in these objects; and the chair appointed Messrs. Proctor, Guthrie, and Stearns, as said committee.

William Proctor, jr., then read an essay on the question whether the nicotina of commercial tobacco pre-exists in the growing plant, or is the result of the fermentation got up during the curing process.

During the evening session, several other essays were read on various questions, among which were the following:

The Medical Plants of Michigan; a lengthy paper by Frederick Stearns, of Detroit, descriptive of the variety, abundance, and habitat of the principal medicinal plants of the State.

The Process of Displacement: the Conditions which gave it the Greatest Simplicity and Efficiency; by Israel J. Grahame, of Baltimore.

An Essay upon the preparation of Blue Mass in form of Powder; and upon the Changes occurring in this Preparation in Lapse of Time; by Charles Bullock, of Philadelphia.

Prof. Henry, of the Smithsonian Institute, was then introduced, and made some interesting remarks concerning the objects and aims of the Institution over which he presides, and gave his earnest approbation to the labors of the Association. He spoke particularly of the efforts made by the Smithsonian Institute to ascertain the habitat and names of the forest trees of the United States, stating that it was proposed to map the forests of our country, at some future day.

A vote of thanks was tendered to the Professor, for his interesting remarks, and the session then adjourned.

THIRD DAY.—Morning Session.

After the transaction of some unimportant business, the meeting adjourned, to attend the excursion to Mount Vernon, prepared for the Association by the Pharmaceutical Association of the District of Columbia.

The members of the Association, with several ladies, then proceeded down the Potomac by steamer, and landed at Mount Vernon, where three hours were consumed in viewing that spot so hallowed by its associations,—the home of the Father of his Country. An ambrotype of the members of the Association in one group, was taken near the tomb, which was afterwards presented by the Association of the District.

After leaving the grounds of Mt. Vernon, the party were landed at the White House, a few miles below, where an ample collation had been prepared; which having been discussed with the usual accompaniments of toasts and speeches, the party returned to Washington, about 8 P. M., and went immediately into session.

The subject of the Preparation of Saccharides, or sugar impregnated with medicinal substances, was treated in an able manner by Eugene Dupuy, of New York, in a paper prepared for the meeting.

The Analogy between Jalapin and Podophyllin, in its Medicinal and Chemical Relations, was the subject of a Report by R. H. Stabler, of Alexandria, D. C.

A Monograph on Cerasus Serotina (Wild Cherry tree) was then read by the author, Prof. Proctor, treating upon its products useful in medicine, &c.

Dr. Edward Donnelly then read a paper upon the Brazil Nut of South America, showing the extent of the production of its fixed oil, and its applicability for use in Pharmacy. This paper was illustrated by a fine oil painting of the nut, and specimens of the oil, and its products—as Glycerine, Oleic, Stearic, and Margaric Acid. Its availability in the preparation of lead plaster and citrine ointment were proved by fine specimens of those articles made from it. The reading of this paper elicited much applause.

A Report was then read upon the Extent of the Culture of the Maranta Arundinacea, in Florida, for the Purpose of Preparing its Fecula for Commerce. Dr. Battey asserts that nothing prevents the product of Arrow Root in Florida exceeding in quality and quantity that of the Bermudas, except want of capital and labor devoted to it

Dr. Guthrie, of New York, then reported upon the Present Sources of Senega, Spigelia, and other Indigenous Roots of the United States.

John M. Maisch, of Philadelphia, presented a paper upon Tests for Detecting the Adulteration of Volatile Oils.

On motion, adjourned.

FOURTH DAY.—Morning Session.

Dr. E. R. Squibb, of New York, read a lengthy and exceedingly valuable paper, entitled "Suggestions in Relation to the Revision of the U. S. Pharmacopœia"; in which he reviewed the processes; more particularly for Ether, Comp. Spirits of Ether, Chloroform, Oil of Wine, Nitrate of Silver, and for several Ferrugineus and Mercurial Preparations. One of the most valuable features of this paper as the *simple* and practicable tests which he proposed for testing the purity of those Pharmaceutical items upon which his paper treated.

The subject of Professional Intercourse between Physicians and Pharmaceutists was the title of a paper which was next read by its author, S. M. Colcord, of Boston. The fitness of most of the applications in this paper was so keenly appreciated by the members that it was warmly applauded, and endorsed by the whole Association, exposing, as it did, the faults and difficulties which underlie the constant misunderstandings which occur between the Professions Medical and Pharmaceutical.

The applicability of our Native Wines for use in Pharmacy as a menstruum; their Adulterations; and the question, Whether the Brandy produced from the Native Wines, can properly substitute French Brandy in our Pharmacopœia, was the subject of a paper read by Frederick Stearns, of Michigan; in which the conclusions arrived at were, That Native Wines are, from their acidity and want of perfection, in their present state of production, unfit for use as menstruæ. That they are largely adulterated; also largely manufactured artificially; and that Brandy from Native Wine, when made from good Wine, and by processes identical with those of the French, can be made a proper substitute for the foreign made article.

A report by Thomas P. James, of Philadelphia, upon the Liquorice Plant, was read by Prof. Proctor.

Volunteer papers, by Dr. Henry Thayer, of Cambridge, Mass., upon the Relative Value of Alcohol and Sugar in Fluid Extracts, and on Concentrated Medicines; by Henry A. Tilden, of New Lebanon, on the Relative Value of Foreign and Indigenous Plants in Medicine; by Wm. S. Merrell, of Cincinnati, Ohio, upon the Universal Applicability of Alcohol as a Menstruum for all Medicinal Principles in Plants; by Frederick Stearns, of Michigan, upon the Peppermint Plantations of Michigan, describing the Culture of the Plant, Mode of the Distillation of its Oil, and giving of the Statistics of the Amount and Value of Oil produced.

Prof. Proctor, from the Committee to whom was referred the subject of an application to the Agricultural Bureau of the Patent Office, as brought to the notice of the Association by Mr. D. J. Browne, reported that they recommend that an application be filed in the Patent Office requesting that on the reception by the department of any medical roots, plants, or seeds capable of yielding plants, they forward to the Secretaries of the Colleges of Pharmacy at Boston, New York, Philadelphia, Baltimore, and Cincinnati, the Pharmaceutical Associations of Washington, Richmond, St. Louis, and San Francisco, and to parties in Detroit, New Orleans, Charleston, and

Nashville, to be designated by the Committee, such parcels of them as they deem sufficient for experimental purposes. They also recommend that the practical carrying out of this business be referred to a committee of four members, who shall be instructed to draw up an application to the Agricultural Bureau and file it as above directed, and who shall address, on behalf of the Association, communications to each of the recipients indicated, enlarging on the importance of giving any specimens sent to them by the department the most careful attention as regards culture or analysis, as the case may require, and communicate the results to the Agricultural Bureau as early as possible thereafter. They also recommend that the subject shall be referred to the four following gentlemen, namely—John L. Kidwell and F. S. Walsh, of the District of Columbia; T. P. James, of Philadelphia; and Wm. A. Brewer, of Boston.

On motion, the Report was adopted.

The following new committees were then appointed:

On the Preliminary Revision of the Pharmacopœia—Edward Parrish, of Philadelphia; Israel J. Grahame, of Baltimore; and Charles T. Carney, of Boston.

On Home Adulterations—Charles T. Carney, A. P. Sharp, George W. Weyman, Alfred B. Taylor, Richard H. Stabler, and E. R. Squibb.

On Weights and Measures—A. B. Taylor, Thomas Hollis, and C. B. Guthrie.

On the Amendment of the United States Law Regulating the Importation of Drugs and Medicines—C. B. Guthrie, John L. Kidwell, and A. P. Sharp.

Mr. Meakim, from the Committee to Examine Specimens, submitted a Report; which was accepted and referred to the Executive Committee.

Mr. Proctor, from the Committee appointed to report Subjects for Future Investigation, submitted a Report embodying forty questions, which were assigned to various members. The Report was accepted and referred to the Executive Committee for publication.

On motion by Mr. Colcord, it was agreed that when the Association adjourn it be to meet in Boston, on the second Tuesday of September, 1859, at three o'clock P. M.

On motion of Frederick Stearns, a vote of thanks was unanimously passed to the President and Recording Secretary for the ability with which they had discharged the duties of those offices; also, to the Pharmaceutical Association of the District of Columbia for the manner in which the Association have been received and entertained.

The roll was called, from which it appeared that ninety-one new members had joined the Association during the past year. No further business coming before them, the Association then adjourned.

F. S.

THE

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Original Communications.

ART. XL.—The Peppermint Plantations of Michigan.*

BY FREDERICK STEARNS, PHARMACEUTIST.

GENTLEMEN:—You are all aware how conspicuous a place is occupied in our list of the Materia Medica by the essential oils, and doubtless that, of those largely produced in the United States, the oil of the *Mentha Piperita* is the most important, both in its relation to Medicine and to Commerce; and I further venture to say that, among those essential oils, there is no one of them concerning which so little is generally known of its history, culture, and production, as of this of which my paper treats.

The Association having invited reports from its members upon subjects of similar character, I trust that the following remarks, which relate more particularly to the introduction of the culture of Peppermint into Michigan, the

* Read before the American Pharmaceutical Association, at its Seventh Annual Meeting, in Washington, D. C., September 17th, 1858.

methods there employed for growing the plant, and the processes of distilling its oil, may prove of interest and value.

For the last ten years, the largest proportion of the oil of Peppermint produced in the world, has been sent from one county (St. Joseph), in the south-western part of Michigan. The plant was cultivated for its oil in New York and in Ohio for many years previous to its first introduction into this State, but, from want of sufficient and authentic data, I am unable to give you any account of its early cultivation in those States, and will therefore confine my remarks, principally, to that portion of its history and culture, which relates to the State in which I reside.

It was first introduced into St. Joseph County in 1835, by CALVIN SAWYER, who brought the roots from Ohio, and made the first plantation on Pigeon Prairie, in the township of White Pigeon. In the spring of 1836, two farmers, named WHITE and EARL, procuring roots from CALVIN SAWYER, made plantations on the same prarie, and in the same township. In 1837, the number of plantations was increased by others; and in 1838, MARSHAL CRAW and LEWIS RANNEY commenced its culture on burr oak soil, in Florence township of the same county. In the soil of these burr oak openings, as they are termed (being rich, loamy, and gently undulating, covered here and there with a scant growth of the burr, or scrub, oak), the Mint was found to produce better than on the prairie soil, where it not only required more labor to cultivate it, but was often unprofitable, from the roots being winter-killed, occasioned by the snow being blown off the level fields, and thus exposing the ground to the influence of the frost; its cultivation being abandoned on the prairies, it was thereafter limited to the township of Florence, where it has principally been cultivated ever since, there being but little over one hun-

dred acres employed in Mint, *outside* of St. Joseph County, in the whole State.

During the first year of its production, the oil was purchased by the village merchants, and exchanged in New York City for merchandise suited to their trade. As the product increased, these merchants acted as agents for eastern dealers, who bought, sold or exported it, shipping it to Europe, where it was principally disposed of in the Liverpool market.

The Mint oil being a fancy product, and not a substantial staple commodity of commerce, the surplus, after our own and the European market was supplied, was of little value until there occurred a new demand. As a natural consequence, competition in speculation upon its purchase and sale in the City of New York became hazardous, there being many houses more or less engaged in the business. At this time (about 1844), the house of PATTERSON, STONE & Co., in that city, adopted the following enterprize, with the view of monopolizing the trade in Mint oil:

This house first sent an agent to Europe, to determine the amount of the demand in the Liverpool market. This he did, and ascertained it to be about 12,000 pounds per annum. They then sent another agent west, to determine the amount of the product annually. This agent found plantations in Wayne and other counties in Western New York; others still larger in the counties of Ashtabula, Geauga, and Cuyahoga, Ohio; and finally those of Florence in this State. The plantations in New York did not produce enough, those in Ohio too much, and those in Florence just about the quantity required to supply the Liverpool market. He consequently entered into contract with the producers in New York and Ohio, whereby he bound them under heavy penalties to plow up their Mint fields, and destroy the roots, and not to plant any more Mint or

sell or give away any roots, or produce or sell any Mint oil for the period of five years, and paid them one dollar and fifty cents per acre as a bonus for so doing. He then contracted with the producers of St. Joseph County to pay them two dollars and fifty cents for their Mint oil, delivered at such agencies as he established in the county for that purpose, for a like period of five years, binding them under heavy forfeitures not to sell roots to any one, not to extend their own plantations themselves, and to deliver every ounce of Mint oil produced by them to the agents under the contract. These contracts continued to be observed for about three years, by the producers, when the house having gained the desired end of this monopoly, a large fortune, ceased to enforce the contracts, which, by this time, were not greatly regarded or observed by the producers. By this time, also many of the producers had amassed fortunes from their Mint product, retired from the business, and seeded down their farms; other fields had run out, and new ones converted into Mint fields; the production of the oil again became general, and has since continued so, but limited mostly to Florence.

I will now proceed to state the method of culture, and the minutiæ concerning the distillation of the oil.

The Peppermint plant requires a deep, rich, warm soil. The opening lands of Southern Michigan, which are mixed with sand, black loam, and some clay, are most productive in oil, if not in quantity of herb to the acre. The ground is prepared by deep plowing and harrowing, as for oats, potatoes, or other summer products, in early spring, say from the middle of April to the 20th of May, or as soon as an acre or so can be plowed to commence with, in order to get the roots of the Mint planted before they begin to sprout. The ground is furrowed as for potatoes, with the furrows fifteen, eighteen, or twenty-four inches apart. The roots are prepared by plowing up an old field of Mint

ground, from which they are raked out with rakes, potato hooks, etc., loaded on a wagon like a load of straw, and drawn to the new Mint ground. The best roots are taken from fields planted the preceding year, and it requires about one acre of such to furnish roots enough to plant ten acres anew. The planter goes to the stack of Mint-roots in the corner of the field, or wherever they may have been deposited, fills a bag half full of them (which are light), swings it over his neck, and under his left arm; taking a bunch of roots from the bag, he holds it in his left hand, passes along a furrow, tearing off a root, or a small parcel of the roots, as is most convenient, from the bunch in his left hand, he drops it, or them, into the furrow, covering them with his right foot, and stepping on them with his left one, as he proceeds. It is an object to plant the roots so thick in the furrow as to form a continuous connection, or chain. This is called "setting Mint." A man will set from half to three-quarters of an acre in a day.

As soon as the Mint is seen above ground, usually in three or four weeks, the horse and cultivator (the common corn cultivator) are introduced, and followed by the hoe. This process is repeated twice or three times. When the Mint has grown and spread to the size of rows of beach leaves or half grown potatoes, the hoe is again plied for the last time, in the early part of August, and this completes the culture of the crop. This keeps down the indigenous weeds, and when the mower goes into the field, in the latter part of the same month, he finds the ground nearly, if not entirely, covered with Mint.

The cutting and distilling commences about the 25th of August, and continues until the 1st of October, during which period the plant is in full inflorescence, and the lower leaves begin to grow sere. If the season has been unusually dry, and there comes a rain, the Mint is allowed to stand from one to three weeks longer than if otherwise,

as it is rendered more productive of oil—wet seasons being considered more favorable than dry ones. It is cut the first year by a cradle with two fingers, and grass scythe. It is raked together in small cocks, where it is suffered to wilt ten or twelve hours. If convenient, wilting the plant, as well as increasing the yield of oil slightly, enables the operator to get it more compactly into a smaller compass. From the cock, it is taken to the distillery, which will be hereafter described.

The next year there is nothing to do to the Mint field but to cut and distill its product. During this (the second year), a few weeds make their appearance, but not to the injury of the crop, though the most careful of the Mint-growers go through their fields, and destroy them as much as possible. The second year the stalk or stem of the Mint is coarse, and the leaves not so abundant as before, so that the second crop is not so productive as the first.

The third year there is nothing to do but to harvest and distill the Mint. The stem is coarser than before, and the leaves still less abundant. The weed this year abounds, and if not removed and destroyed (a task involving much labor), half or more of the product of the field is weed, and the yield of oil and herb consequently reduced to one-half, or less than one-half, that of the first year.

The fourth year, the field is plowed up early in the spring. This, in a measure, kills the weed (this "renewing," as it is called, is sometimes done the third year, and every following third year until the field is employed for other crops), the broken roots send up new and tender shoots, and a fair crop is again obtained without any further labor than plowing the field.

The fifth year, without any further attention, produces a crop equal to the second; after which, the field is pastured and reclaimed for other crops.

The first year produces the best quality of oil, the

highest yield per acre, and the greatest yield to the quantity of herb.

Some few Mint-farmers raise the plant from the seed, carefully cultivating the ground, and protecting the young shoots from the early frosts, the Mint not being cut until the second year of its growth from the seed. Those who operate in this manner, usually re-set their fields every two years, planting them with new Mint, raised in a nursery, from the seed. Others still, plant the roots in the fall, after the crop is gathered, cultivate and hoe it in the spring following, until it reaches the height of a foot or so. After the crop is gathered, the Mint stubble is again plowed under, and harvested the second season without cultivating or hoeing.

The weed which has been mentioned is the only one the planter has to contend with after the first year's cultivation, and there is no means of entirely subduing it. After the first year, the Mint roots, which naturally tend to the surface, and the stems, which naturally tend to seek the earth, and root in it from the joints, form a superficial network over the whole field, suppressing every other weed, and leaving no means of subduing this weed, without injuring the crop. This weed is known by the several names of *Horse-tail weed, Cow's-tail, Mare's-tail, Field-broom, Bitterweed,* and *Fireweed;* its botanical name, *Erechthites hieracifolius.* It grows throughout the United States in moist woods, and in the rank soil of recent clearings; its odor is peculiar, and somewhat disagreeable, depending upon a volatile oil. It is employed somewhat in medicine, particularly by the eclectics. This plant, after it gains a foothold in the Mint field, the third year, is accompanied by June grass, both of which are cut with the Mint and go into the process of distillation with it. The Fireweed yields an essential oil of no value, which is pungent and somewhat bitter. It is the only plant which

grows with the Mint that yields an essential oil. It is somewhat difficult to detect in the Mint oil, unless mixed in the ratio of more than fifty per cent., except by the specific gravity of the mixed oil; the pure Fireweed oil requires eighteen fluid ounces to weigh one pound avoirdupois, *i. e.* a quantity of weed oil equal to one pound of Mint oil in bulk weighs but fourteen ounces avoirdupois.

It will be seen from the foregoing that this weed oil finds its way into a very large proportion of the oil of Peppermint produced, either by accident or design. It has indeed often been used by unscrupulous persons and producers in adulterating their Mint oil; some have been known to distill it pure, for that purpose, from the weed gathered in waste fields and fallow grounds.

The Fireweed oil, spirits of turpentine and high proof alcohol constitute the only materials known, that are used in adulterating the pure Mint oil; though it may be presumed that bland fixed oils are often used for the same purpose. The odor, and less specific gravity, of the weed oil best serves to detect its presence in Mint oil, as also that of turpentine. Washing it with water will remove the greater portion of the alcohol from oil adulterated with it. Any fixed oil contaminating it, is detected by the greasy stain such mixed oil leaves upon paper, and is removed by re-distillation. The specific gravity of pure oil Peppermint when fresh is 0·902.

It is usually of a pale yellow color, sometimes almost white, or of a slight greenish tint; as it grows old it becomes more or less oxidized, and assumes a reddish color.

The precautions necessary to produce a superior product, both as to quantity and quality, are—

1st. To distill, from new or young Mint, the first crop of rich and well cultivated land.

2d. Tight and well constructed apparatus.

3d. Cutting, wilting, and distilling the plant in still,

dry weather, as much oil may escape, on account of its great volatility, before it reaches the still, in windy weather, and before it can be wilted in damp, cloudy, or rainy weather. The process of distilling is facilitated much by wilting the herb, as the bulk being thereby reduced from one-third to one-half, the greater quantity can be compressed into the same capacity of the vessel used in the process of distillation.

4th. Good dry and well-preserved fuel is necessary, which, from its great combustibility, will generate steam the most rapidly.

The apparatus used in distilling the oil is—

1st. A boiler with a flat bottom of boiler iron, and a circular top of sheet iron. The boiler is about nine feet in length, and thirty inches in diameter, with three flues six inches each in diameter. The boiler is set upon a brick arch, which receives the fuel.

2d. A well and hand-pump to supply the boiler and other apparatus hereinafter described.

3d. A round tub, made of pine or whitewood staves, hooped with iron bands; the staves from one and a half to two inches thick, the tub four feet six inches deep, and six feet in diameter. This tub is set up from the ground from three to six inches, on bricks or wooden blocks; one-half or one-third of the top, or head, is constructed with the tub—that is, it is set in a groove in the staves like a barrel head, leaving an aperture of half or two-thirds of the circumference of the top. To this aperture is fitted a movable lid, which shuts down tightly, and can be, when shut down, made steam-tight by means of oakum stuffing.

4th. A cooler; being a large tub, set two feet from the ground, filled with water, and containing a worm of tinned-iron, about one hundred feet long, the lower end of which projects through one side of the cooler about three inches from the bottom; the upper end of the worm connects by

a pipe of similar material, with the top of the first described tub, which tub is called "the steam tub," or "still."

5th. A receiver of tin, placed under the opening of the lower end of the worm. The receiver is eighteen inches deep and ten inches in diameter; from the bottom of this there issues a discharging pipe at an angle of about 25°, similar to the spout of a coffee pot, and extends at that angle to its extremity, which stands at an elevation of an inch or two below the top of the receiver. A tube or pipe extends from the top of the boiler to the bottom of the steam tub, or still.

The whole structure is generally covered with a temporary shed, for protection against the weather — this covering being open upon the sides. Underneath the covering is erected a plank floor, twelve or fifteen feet square, to receive the Mint. This floor stands at a level with the top of the steam tub, or still.

After the boiler has been supplied with water, the fire is started in the arch, the Mint has been drawn in from the cock, and deposited on the plank floor, from whence it is pitched with a hay fork into the still, and packed down as it is thrown in, by one of the hands, who goes into the tub for that purpose, and packs it with his feet until the still can receive no more. This is called a "charge." The movable lid is then adjusted, and the steam applied from the boiler. The essential oil of the Mint passes with the steam into the worm; is condensed with it, and passes into the receiver, where it rises to the top of the water. As the receiver gets filled, the water constantly escapes by the spout, while the oil is dipped off, and placed in cans ready to receive it. When the charge is exhausted, and yields no more oil, the steam is shut off; the lid of the steam tub, or still, thrown open, and the reeking contents removed with hay forks. This is called "Mint straw."

Horned cattle and sheep are fond of it, and will subsist upon it through the winter. It is thrown into large piles about the Mint still, after being dried, or else drawn into barns, where it lies till fed to cattle in the winter.

The oil cans are made of the best tinned-iron, after the model of the tin powder-cans, and contains each twenty pounds of oil. In these cans the oil is shipped, the small aperture at the top being soldered. Three, four, or five cans are placed in a case, the tops of which are sloped like a house roof.

There are now in this State about 2100 acres employed in producing the Mint plant, all of which, except about one hundred, are in the county of St. Joseph. It produces in oil, per acre, as follows:

Maximum	20 lb. av.
Minimum	2 "
Average	7 "

In England, at Mitcham, where the Mint plant is raised in richly manured land, the average yield is stated to be 17½ lb. to the acre. Upon the plantations of the Messrs. HOTCHKISS, in Western New York, the average yield is said to be 20 lb.

The average product per annum in this State has been as follows, from the commencement to the present time:

Maximum	30,000 lb.
Minimum	8,000 "
Average	15,000 "

The crops vary for several reasons. That of 1855 was large, being 30,000 pounds; the dry season following, it was reduced to one-sixth, *i. e.* to 25,000 pounds; and the severe cold of the winter of '56 and '57, by killing the roots, reduced the crop to one-half that of '55, it being variously estimated from 12,000 to 15,000 pounds.

The prices obtained by producers of the oil have been as follows:

Highest price per lb.	$4.00
Lowest price per lb.	1.25
Average price per lb.	2.37

There having been as much sold at $1.25 as at $4.00, the average is taken between $1.75 and $3.00, the usual prices. The prices ranged somewhat as following: 1844 to 1847, at $2.50; 1847 to 1852, at $1.50; 1853, at $2.00; 1854, at $4.00; 1855, at $3.50; 1856, at $2.50; 1857, the crop of which is yet partially unsold, from $2.00 to $2.50.

The land, with its improvements, is valued from $30 to $35 per acre. The cost of cultivating a Mint field the first year is $22 per acre; and for the succeeding three years, $5 a year per acre.

The following statement will show an approximation to the amount of capital invested in this industry in our State, and its returns:

2100 acres of Land and Improvements are valued at	$75,000
Total average value of Oil to producers . . .	37,500
Total cost of Production, including interest upon $75,000 at 7 per cent.	24,000
Profit to producers	13,500

This profit is over one-third the receipts for the oil, and 18 per cent. upon the capital employed. Assuming that there are 500 acres in Mint plant in Western New York, and 500 acres in Ohio, which, I presume, is nearly correct, at least a low estimate, and that the average product of the New York plantations be 12 lb. of oil to the acre, while that of Ohio is reckoned at 8 lb., the total annual product of these States will be 10,000 lb., valued at $25,000—making the average value of the whole crop of oil Peppermint produced annually in the United States to be over $63,000 to its producers.

Having in view the general interest felt by our Pro-

fession in such matters, I was led to prepare this Report; and if, Gentlemen, it has served to instruct, or even entertain you, I shall rest satisfied, only expressing the hope that it may induce members who possess the opportunities requisite, to convey to the Association such information as they can collect relative to those industries of our country, appertaining to our pursuits, and concerning which the general knowledge is as yet limited and indefinite.

In conclusion, I desire to express my obligations to those gentlemen interested in the Mint product throughout our State, for the valuable aid they have afforded me; particularly to Messrs. S. C. COFFINBERRY and WM. H. ROYS of Constantine.

DETROIT, July 20th, 1858.

ART. XLI.—A Case of Obstruction of the Bowels relieved by Copious Injections, after the Failure of other Means.

BY O. C. GIBBS, M. D.

THE following case is interesting, because relief came when but little expected, and under desperate circumstances:

January 1*st*, 1858.—I was called to see Mrs. R——, aged about 55 years. She complained of severe pain in the bowels, was vomiting some, the pulse was quick, tongue furred, bowels tender on pressure, the countenance haggard and indicative of much distress and prostration. I suspected a strangulated hernia, but, on inquiry and examination, this supposition proved groundless. Opium, in full doses, combined with small doses of calomel, was advised internally, and hot fomentations locally.

January 2*d*.—The patient was suffering less pain, but not otherwise improved. The treatment was continued, the opium in diminished, and the calomel in increased, doses.

January 3*d*.—The patient was no better; the pulse

was more frequent, and the vomiting still continued. Castor oil was now ordered in tablespoonful doses, to be repeated every hour until it operated; the action of the oil to be aided by injections of infusion of senna.

January 4th.—Still no improvement, but patient gradually failing. Bowels were much bloated and tympanitic. The matters vomited now were stercoraceous. Cloths, saturated in turpentine, were applied to the bowels; calomel, rubbed up with blue-pill, was now ordered, in four grain doses of the mass, to be repeated every two hours.

January 5th.—Treatment had been discontinued during the night; the friends supposed the patient dying, and refused to give additional medicines. The patient was evidently sinking; the bowels were greatly distended, the vomiting stercoraceous, no operation upon the bowels had yet been secured. Though the case was unpromising, I urged the friends to additional efforts. A blister was ordered over the stomach; as soon as drawn, the cuticle was directed to be removed, and one grain of morphine to be applied to the denuded surface; turpentine was still ordered to the bowels; and calomel, in five grain doses, to be administered every three hours.

January 6th.—Still no operation from the bowels, and no cessation of the vomiting. The patient was slowly sinking. Ordered treatment continued, though, I must confess, with no hopes of relief.

January 7th.—The patient was supposed to be dying by friends; medicines had been discontinued since 12 o'clock last night.

I now explained to the friends that it was possible that a copious injection might overcome the obstruction, and afford relief; this, I said, will occasion much pain, but we certainly ought not to let the patient die without making at least one more effort to afford relief. Of the many present, I selected two women of nerve and decision,

to carry out my directions. With a pump, I ordered them to inject tepid water into the bowels, so long as they could prevail upon the patient to endure it. This they did, and returned to me soon, informing me that they had injected only about a pint. The patient's sufferings, they said, were extreme. Less had been accomplished than I had expected.

I now took the pump myself, closed the door against spectators, and commenced injecting, entreating the patient to endure to the utmost, as this was her only hope. This she did, for a time, but soon her shrieks and groans became heart-rending. Her husband and son now rushed into the room, and commanded me to desist from further attempts to relieve the patient; which I did only after at least two quarts had been injected. The friends evidently looked upon me as a personification of brutality. Though conscious of having done my duty, I felt confident I had lost the confidence of the many present, and that I had better have let the patient died, at least without the last effort for relief.

About an hour after this, to my great joy, the bowels moved freely and repeatedly, to the no inconsiderable relief of the patient. From this time on, the only laxative required was a little yeast. The patient, however, was not destined to recover. She died about two weeks later, seemingly from an inability to rally from the extreme prostration. Peritoneal inflammation was, doubtless, the cause of death, which, in a person of less years, and under more favorable circumstances, might have been cured.

I can not avoid the conviction, that if the copious injections, with a view of forcing the obstruction, had been resorted to earlier, the result might have been different.

FREWSBURY, Chatauque Co., N. Y.

ART. XLII.—Selections from Surgical Notes.

By Moses Gunn, M. D.,
Professor of Surgery in the University of Michigan.

Case I.—*Injury to Genitals, and Subsequent Plastic Operation.* August 10th, 1850, Mr. J. C., age 22, in the act of stepping over a tumbling-rod of a threshing-machine, had his pantaloons caught in the coupling, by which they were twisted around the rod during its revolutions, tearing them, with the rest of the clothing, from the body, leaving only the boots, stockings, and shirt collar. The penis and scrotum became involved in the clothing, by which the entire integument of both these organs, and also of the perinæum quite back to the anus, was completely torn off, leaving the body of the penis back of the corona glandis, the dartos tissue of the scrotum, and the perinæum entirely exposed.

The patient was placed upon his back, the testicles, covered with the tunica vaginalis and dartos tissue, were adjusted in the wound of the perinæum, the penis was suffered to hang down upon the anterior aspect of the scrotum, and simple dressing applied over the whole. In a few weeks' time, the healing process was complete, and the patient resumed his vocation.

On the 7th of February, 1852, being eighteen months subsequent to the accident, Mr. C. presented the following appearance: One testicle occupied the perinæal space; the other, the left groin; the penis lay along the commissure between the right thigh and the perinæum, the organ pointing backwards, with a slight inclination downwards, the glans penis only remaining free; the integument from the abdomen and the thighs being drawn together over all, and united by an irregular cicatrix. Erections were, at times, exceedingly painful. The patient contemplated matrimony, and now sought my aid under these somewhat trying circumstances.

Assisted by my colleague, Prof. ALLEN, I commenced by cutting loose the penis, by incisions so planned as to preserve to that organ the integument with which it was partially covered from the abdomen and right thigh, and securing also, from the latter source, an additional portion with which to complete the investment of the organ. The wound of the thigh was closed by drawing the skin together from the anterior and posterior borders of the wound. This operation was so far successful as to relieve the whole length of the penis; but, from sloughing of a portion of the flap of integument, the direction of the organ was yet faulty. A second slight operation, however, so far relieved this fault as to give to the member a direction somewhat elevated above the horizontal; with which the patient expressed himself fully satisfied. Subsequent events, following the perpetration of his matrimonial project, fully indicated the efficiency of the organ.

As another result of the operation, I may add, that room being made in the perinæum, by removing therefrom the penis, the other testicle gradually settled down from its position in the groin to a place beside its fellow.

CASE II.—*Injury to Genitals.* Mr. S., a young man, aged about 25, met with an accident identical in its cause with the one above described. The result was also somewhat similar. The clothes were torn off, involving as in the other case, the genital organs. I saw the patient within three hours of the accident, and found the integument of the penis completely torn off, from its roots to the glans, except a band, about an inch in width, of what appeared to be the internal fold of the duplicature of the prepuce. The scrotum, also, was completely gone, leaving the testicles entirely uncovered. The spermatic cords were also much elongated, allowing one testicle to lie upon the abdomen, in the vicinity of the umbilicus, and the other

to repose in the bed, between the thighs of the patient. I removed both of these organs, and applied simple dressing. At the end of six weeks the healing process was complete; the preputial band of integument had become greatly stretched, while that from the abdomen was drawn forward to meet it, leaving an intervening cicatrix of not more than an inch in width. The direction of the organ was not materially altered. I have since learned that this patient has perpetrated matrimony, though, as a matter of course, its legitimate fruits are yet wanting.

An interesting physiological feature was developed in the history of this case. The young man was finely developed, having a good figure, a heavy beard, and a full masculine voice. *The latter became, in the course of a few weeks, changed to a decidedly feminine pitch.*

Case III.—*Congenital Deficiency of the Corpus Spongiosum.* July 7th, 1857, Mr. O., a young man aged about 25 years, applied to me for relief from the congenital imperfection indicated by the title of this case. The erectile tissue of the corpus spongiosum was entirely wanting, and the urethra opened behind the glans. The glans, however, was fully developed, becoming distended during erection; it must, therefore, have had vascular connection with the corpora cavernosa. The penis, during erection, was curved to a semi-circle, thus resembling a case of obliteration of the spongy body from inflammatory chordee. Erections were not, however, painful, as the difficulty was congenital, and the development of the corpora cavernosa had been such as to accommodate the curved form necessarily assumed by the penis in its erected state.

Operation.—I divided the rudimentary corpus spongiosum, immediately behind the glans, and directly in front of the orifice of the urethra. I then carried two short parallel incisions, one on either side of the urethra, back

to the scrotum, and dissected up this canal, pushing the dissection, with the point of a long, narrow bistoury, quite to the crura of the penis. The penis was now drawn up, and firmly held, to the abdomen. This movement left a space between the divided ends of the rudimentary body of nearly two inches in length, which was closed by the integument from the sides of the penis. The organ was now securely bandaged to the abdomen, and, in a few days, the wound had entirely healed.

The result was eminently satisfactory, the direction of the organ being, during erection, nearly normal. The orifice of the urethra, was, of course, just in front of the scrotum. The case is one of anatomical as well as surgical interest.

87 Shelby-street, Oct. 7th, 1858.

ART. XLIII.—Case of Rupture of a Varicose Vein and Consequent Infiltration of the Surrounding Cellular Tissue.

BY W. H. MERRIMAN, M. D.

ON June 25th, 1858, Mr. K., a man of temperate habits, somewhat past the middle age, of good constitution and robust health, while at work at his trade, on a house in Oliver street, experienced a sting of pain in the upper and posterior portion of the scrotum, rather to the left side. This was only momentary, and gave a sensation, he said, "as if the part were suddenly pierced by a fine needle." Soon discovering that the scrotum were was greatly enlarged, and apparently increasing in size at a rapid rate, he became sorely frightened.

Dr. LEACH and myself saw him soon afterward. After having his attention directed to the point, he remembered that when a boy, he had been troubled with something (he knew not what), accompanied by some enlargement or

fullness of the left side of the scrotum, but as his attention had never been called to it particularly, except when engaged in horseback riding, or exercising too much in an upright position, and as it had not given him the slightest trouble or inconvenience for many years, the fact had almost escaped his memory.

Upon examination, we found the scrotum enlarged and distended to its fullest dimensions. There was no impulse communicated to the tumor by the patient's coughing. It did not recede when he assumed the recumbent posture. It gave an elastic feel under the fingers, and there was some tenderness and discoloration around the original seat of pain. The testicle seemed to occupy the upper and posterior part of the tumor, but it was almost impossible to detect its presence in the mass of fluid by which it was surrounded, and the patient felt, or feigned, considerable apprehension at its magical disappearance.

From the circumstances above mentioned, together with the history of the case, we diagnosticated it as stated in the heading.

Treatment. — Rest, cold astringent lotions, mechanical support, and gentle laxatives.

On the following day the tumor was found considerably condensed in size much firmer to the touch than it had been upon the day of the accident, and greatly discolored; "Blue as an indigo bag," said the patient.

He complained of a good deal of pain, extending in the direction of the spermatic cord, as far up as the external abdominal ring.

A few days, however, sufficed for the absorbents to complete their work of carrying away the effused mass, and the patient was again at his trade.

Owasso, October 13th, 1858.

ART. XLIV.—Meteorological Register for Month of September, 1858.

By L. S. HORTON, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer			Hygrometer			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	28·95	28·94	28·93	60	75	60	50	63	55	·229	·415	·367	·44	·47	·70	W. 1	S.	S. 1	3.15 p.m.	3.30 p.m.	·01
2	28·79	28·74	28·69	62	72	66	60	64	50	·491	·489	·150	·88	·62	·23	S.	S.	S. 3	2.30 p.m.	5.50 p.m.	.01
3	28·90	28·80	28·79	68	74	66	61	59	60	·443	·300	·438	·64	·35	·68	N.W.	W.	W. 2			
4	28·79	28·79	28·70	58	62	62	53	58	58	·336	·429	·429	·69	·77	·77	W.	W.	W. 3			
5	28·79	28·90	28·90	67	69	56	58	61	52	·363	·430	·335	·55	·60	·74	S.W.	W	W. 2			
6	29·03	29·10	29·11	58	80	66	49	62	62	·229	·316	·502	·47	·30	·78	S.W.	S.W.	S. 1			
7	29·11	29·10	29·10	71	84	68	64	70	62	·503	·545	·476	·66	·46	·69	S.W.	S.W.	S. 3			
8	29·09	29·10	29·10	72	85	69	63	71	61	·445	·570	·430	·58	·47	·60	S.W.	S.W.	S. 2			
9	29·11	29·00	28·90	76	81	61	68	69	54	·577	·561	·325	·64	·54	·60	S.W.	S.E.	S.W. 2	5.30 a.m.	8. a.m.	·04
10	28·80	28·80	28·95	63	76	59	58	69	52	·416	·614	·396	·72	·68	·59	S.	S.W.	W. 2	6. p.m.	9. p.m.	·11
11	29·00	28·90	28·80	56	74	60	51	70	54	·308	·679	·338	·68	·81	·65	W.	S.W.	W. 3			
12	29·00	29·06	29·08	56	74	63	52	70	56	·335	·679	·356	·74	·81	·61	W.	S.W.	S.W. 2			
13	29·00	29·00	29·10	62	79	63	59	70	57	·460	·612	·386	·82	·61	·67	E.	S.E.	S.E. 2			
14	29·12	29·10	29·08	67	75	61	60	69	57	·425	·628	·412	·64	·72	·76	S.E.	S.W.	S. 1			
15	29·00	28·94	28·90	60	70	52	58	64	47	·456	·516	·257	·88	·70	·66	S.W.	S.E.	S.W. 1	9.18 a.m.	5.10 p.m.	·28
16	28·78	28·66	29·00	52	62	57	50	54	50	·334	·312	·268	·86	·56	·57	W.	S.W.	S.W. 1	12 m.	12.20 p.m.	·04
17	29·10	29·10	29·12	65	72	60	60	56	52	·451	·369	·282	·73	·66	·54	S.E.	S.W.	W. 2			
18	29·22	29·21	29·10	55	76	63	53	67	58	·376	·542	·416	·86	·60	·72	S.W.	S.E.	S.E. 1			
19	29·20	29·20	29·10	62	78	62	60	65	57	·491	·443	·399	·88	·46	·71	S.W.	S.E.	S.W. 2			
20	29·22	29·20	29·12	71	84	71	60	68	65	·371	·470	·537	·49	·40	·70	S.W.	S.W.	W. 1			
21	29·10	29·10	29·10	70	68	63	64	58	56	·516	·350	·356	·70	·51	·61	W.	S.W.	W. 1			
22	29·10	29·08	29·00	56	76	59	52	64	52	·335	·436	·296	·74	·48	·59	W.	W.	N.W. 2			
23	29·00	28·90	28·85	54	71	51	50	58	47	·308	·310	·270	·73	·40	·72	S.W.	S.W.	S.E. 2	11.30 p.m.		
24	28·98	29·10	29·15	49	70	50	45	59	47	·247	·354	·283	·71	·48	·78	N.W.	N.W.	W. 1		2. a.m.	·66
25	29·19	29·20	29·20	47	74	48	42	61	42	·202	·363	·189	·62	·43	·56	N.W.	N.W.	N.W. 2			
26	29·20	29·22	29·20	46	74	49	40	58	42	·232	·270	·175	·59	·32	·50	N.W.	N.W.	S.W. 1			
27	29·20	29·20	29·15	47	78	60	40	62	50	·156	·342	·229	·48	·35	·42	W.	W.	W. 1			
28	29·10	29·15	29·00	58	75	70	50	64	55	·255	·449	·550	·52	·61	·75	S.	S.E.	S. 1			
29	28·95	28·90	28·95	68	80	68	66	69	65	·612	·561	·577	·89	·54	·84	S.E.	S.	S.E. 3			
30	29·00	29·00	29·00	69	81	65	64	68	60	·529	·510	·451	·74	·48	·73	S.E.	S.E.	S. 2	9. a.m.	11. p.m.	·34

Bibliographical Record.

THE INSTITUTES OF MEDICINE. By Martyn Paine, A. M., M. D., LL.D., Professor of the Institutes of Medicine and Materia Medica in the University of the City of New York; Corresponding Member of the Royal Verein für Heilkunde in Preussen; Corresponding Member of the Gesellschaft für Natur und Heilkunde zu Dresden; Member of the Medical Society of Leipsic; of the Medical Society of Sweden; of the Montreal Natural History Society; and of many other Learned Societies. New York: Harper & Brothers. 1858.

The issue of a new work, by an already distinguished author, awakens something of the same interest and curiosity, or desire to become acquainted with its distinguishing features—its merits and its demerits—that occupies the public mind, and, especially of those who claim to possess knowledge of the subject, in reference to the promulgation of an important improvement in any of the arts, or the announcement of a new and promising invention. Hence, the anxiety, if the work pertains to general literature, of the *literary*, and of the *special scholar*, if it belongs to any of the learned professions, to become possessed of it, or to acquaint themselves with its contents—more properly its doctrines,—through the medium of faithful notices and reviews. A moiety of the same feeling pervades the mind in regard to a new edition of the same work at a distant period. These inquiries present themselves for consideration: Have time, and the advancing developments of science and of art, or the acquisitions, and, therefore, the enlargement

of the author's own mind, and the necessarily augmented power of deduction, operated any change in his views and reasonings? Have the doctrines advanced undergone any modification? Are they enforced by more pertinent illustrations? or elaborated with more copious and cogent argumentation? Has his mind taken on a morbidly fixed—a stereotyped condition?

Whether the writer may be so fortunate as to offer to the Medical Public satisfactory answers to any, or all, of the foregoing inquiries; to present such a clear and intelligent view of the ponderous tome before him, as will enable his readers to perceive and to appreciate the *good*, and, therefore, the *real value to them* and to their *science*, of the learned Professor's labors, is a question not a little puzzling to himself.

When he considers the complexity of the subjects discussed, the great diversity of topics brought to view, the multitude of distinguished writers whose talents and skill have been devoted to them, as well as the criticisms of the author, and the copiousness of the work, he may, with great propriety, indulge some misgivings as to his fitness for the task he has undertaken. All he promises himself is to bring to his labor honesty of purpose, and to devote to it the best energies of which he is possessed.

The "Institutes" have been before the world something more than ten years, and the present is the fourth edition. The work comes to us in a somewhat modified and enlarged form—an Appendix, which is itself a labored treatise, being added; and the Index, as previously promised, having been so "extended" (though, from untoward circumstances, not completed in accordance with the original design), as to constitute, in a measure, an epitome of the whole.

In reference to the first two inquiries we have propounded, we are furnished with a prompt and decided response in the author's own words, in the first sentence of

his brief preface to the present edition. He remarks: "This work, as originally published in 1847, *remains without change, as the author has seen no reason to modify any of his doctrines.*" The sentence is italicised by the writer. In the first sentence of the Appendix, we find a reiteration and an amplification of the same sentiment. It is there declared: "During the former editions of the foregoing work, the author has seen no inducement to modify any of his conclusions, or to disturb any of the facts upon which they are founded, and for the same reason, every statement appears in the present edition (1857) as presented originally, in 1847. Whatever has been subsequently disclosed in Physiology and Chemistry is essentially in harmony with all that the author incorporated in the foundation upon which his Institutes are erected, and places them beyond the probability of being much invalidated."

These declarations, thus emphatically, not to say vauntingly, announced, might justify some important and pertinent reflections. Our purpose will allow us only to indicate a few, that are singularly suggestive, and these in interrogatory form.

Conceding to the author intellectual integrity, honesty of purpose, and common industry—and who will not concede all these?—is it possible, we ask, that "he has seen no reason to modify any of his *doctrines*"? What becomes of all the boasted improvements of the age, in the several departments of Medical Science, and especially in those of Physiology, Pathology, and Therapeutics? Have no improvements actually been made? Is it true that the status of Medicine, as a whole, has continued, during the past decade, precisely what it was during the preceding, or throughout the entire period of the author's researches, and in the course of which his views must have been formed and established, and his doctrines constituted? Was he competent, through prescience, to grasp futurity,

and thus to forestall the results of all of coming time? Was he endowed, *ab initio*, with omniscience, or had his mind, in anticipation of the work before us, become stereotyped, and, therefore, incapable of change, or of perceiving change?

For the present, we pursue these reflections no further. We leave them to the curious in the history of Literature and Science, and to the learned in Pyschology, to solve the problems involved in the foregoing inquiries. Whether the author's doctrines are enforced by more pertinent illustrations, or elaborated with more copious and cogent argumentation, will appear as we proceed. The work, in its entirety, rests upon the basis of "*Solidism and Vitalism*"; and in its prosecution, the author has adopted what he regards as a strictly analytical method. Thus, he claims to have arranged the various topics treated of, in the order indicated by nature, or "as each successive one may appear to emanate from, or to depend upon the preceding." He further claims *this to be "the first* effort that has been made to present the natural relations of his whole subject in their just order, to point out the affinities, to exhibit throughout the important laws and essential foundations of *Vitalism and Solidism*, and to maintain, throughout, a consistency of facts, and of laws, that shall stamp the whole as the *Philosophy of Medicine.*"

Having thus announced his general plan, and put forth his claims, in regard to method, the author invites "the most rigid scrutiny," declaring his earnest wish, "if there be, anywhere, a collision, in principles or facts, or any contradictions of himself, that they may be discovered and pointed out." In this connection, too, his "aim" is declared to be "truth," and his desire to claim for himself only "what he cheerfully yields to others."

A little further on, it is conceded that many of the original doctrines contained in the "Institutes, are pre-

sented," in various connections, in a preceding work (the Medical and Physiological Commentaries), and the spirit which pervades these (the Commentaries) pervades, equally, those (the Institutes) "as being," in the author's judgment, "the only stable foundation."

Another feature of the work, as announced in the preliminary remarks, is an emphatic expression of the writer's design "to speak of such errors as have usurped the rights, or blighted the interests, of *rational medicine*," and his conviction that the *present* is not the appropriate time, nor *this* the occasion, for the mere declaration of "facts of experience, and philosophical doctrines," is most explicitly stated. On the contrary, he holds, in his accustomed strong language, that "truth, in Medical Philosophy," can "be established, only by a simultaneous refutation of the errors which surround it."

In this connection, it may be said, the reader will not fail to be struck with the obvious zest and personal satisfaction with which he enters upon this portion of his labors, as evinced in the following quotation: "It will, therefore, be my agreeable task to expose, in these Institutes, the fallacies of the prevailing physical doctrines of life and disease, as well as to inculcate principles which exalt our science above the mere world of matter, render it consistent in its details, and present it to the Profession as a department of knowledge, fundamentally distinct from other pursuits."

But, in all this, we find nothing different, either in illustration or argumentation, from what characterizes the primary edition of the work,—that of 1847. In truth, with the exception of the Appendix and the extension of the Index, to which allusion has already been made, it is but a reiteration, and in precisely the same terms, of the sentiments, purposes, and doctrines of that primitive edition; and a critical examination of the first and the last issues (both

of which are before us), will confirm—if confirmation be necessary—the declaration of the venerable Professor, before quoted, that "This work, as originally published in 1847, remains without change."

Might not the querist demand, Then why a second, a third, and even a fourth edition? What condition, either of the Profession or of the science of Medicine, can be pointed to as requiring a reiteration, merely—an unmodified reprint of the same identical sections, paragraphs, and pages? Can anything be imagined, save a craving demand of the Profession, founded on the great popularity of the work, and the fact that the first edition, and the subsequent ones also, were entirely out of print?

But it is not proposed to enter upon a critical examination of the teachings of Professor PAINE, nor to determine the appositeness of his criticisms. To do so, and to institute comparisons, and to draw a parallel between the truths promulgated, on the one hand, and "such" alleged "errors as have usurped the rights or blighted the interests of rational medicine," on the other, would require an amount of labor scarcely less onerous than that he has himself performed, and the production of a volume scarcely less cumbrous than the work under consideration. We shall have accomplished our original purpose if we succeed in answering, intelligently and truthfully, the inquiries propounded in the early part of this notice. Having considered the first four of the series, and, as we fondly hope, answered them, with strict fidelity to justice, it only remains for us to consider the last—*Has his mind taken on a morbidly fixed—a stereotyped condition?*

To answer this question affirmatively may seem to border on presumption. We would not put forth our conclusions unadvisedly nor arrogantly; but, when we consider the facts already stated—that "the work remains without change"; that "the author has seen no reason to modify any of his

doctrines"; that "he has seen no inducement to modify any of his conclusions, or to disturb any of the facts upon which they are founded"; and, moreover, when we consider that the entire volume—from beginning to end, up to the Appendix, sentence for sentence, paragraph for paragraph, and page for page,—appears, in the present edition (1857), as presented originally in 1847, we find it exceedingly difficult to escape the conclusion that he is, most emphatically, *"joined to his idols."* We have sought in the Appendix—obviously a recent production—facts and reasonings which would justify a different conclusion, but, even here, we are met with the declaration—manifestly uttered under the influence of a strong feeling of triumph—"Whatever may have been subsequently disclosed in Physiology and Chemistry, is essentially in harmony with all that the author incorporated in the foundation upon which his Institutes are erected, and places them beyond the probability of being much invalidated."

Verily, in view of these several considerations, what judgment can be indulged—and we regret the alternative—but that *his mind has lapsed into a condition of stereotyped invariableness?* or, that the vast science of Medicine had, at the completion of the first edition of the Institutes, reached a point, beyond which, for a long period of time—certainly till the close of the author's earthly career—till "his life is swallowed up in victory"—it could not advance!

But there is another aspect in which the labors of Professor PAINE are to be viewed and appreciated. He holds a strong controversy with the doctrines and dogmas of Organic Chemistry, "as applied to Physiology, Pathology, and Therapeutics," as also with every *attempt* to account for, or explain, any of the phenomena of life, either in a normal or abnormal condition, *mechanically*, or in any other way than in obedience to the *innate—the fundamental laws of the living economy.*

At various periods in the history of our science, Chemistry has sought to absorb, or to monopolize and control, most that belongs to medical reasoning. As early as the days of that Prince of Charlatans, PARACELSUS, not content to limit its sphere to its legitimate area — the laboratory; to study the composition of inorganic matter, the relations and affinities of elements, and the improvement of pharmaceutical processes; it assumed to teach "that the body is subject to the same chemical laws with inanimate matter, and that all the phenomena of vitality may be explained by the operation of these laws." Perhaps no era, however, in Medical History, has exhibited the aspirations of this department of scientific research so fully, and presented its claims so imposingly, as that which witnessed the promulgation of the investigations and deductions, or inferences, of the learned and indefatigable German chemist, LIEBIG. The great popularity of this writer's views, the fascinating style in which they were offered, and the manifest tendency of the age to adopt them, as well as their supposed reforming — we had almost said regenerating — influence, not upon the *theories* alone, but the *practice of Medicine*, seemed to have prompted the author of the Institutes to the performance of the immense labor which resulted in their publication.

Allusion has already been made to the manifest satisfaction with which he accepts the issue; — indeed, it would appear that he regards *it* as the Thermopylæ which guards the sacred domain of pure Medical Science, and he is willing to hazard his reputation as a ripe medical scholar in its defense. How well he has acquitted himself of the high trust he has thus voluntarily assumed — how effectively and satisfactorily he has played the part of the Grecian hero, remains for time, and the substantial intelligence of his compeers and his successors, to show. In his investigations of the numerous important topics of which he

treats, he brings to his aid the accumulated resources of a long and industrious life. He exhibits a clearness of perception, a soundness of judgment, and an adroitness in argumentation, which mark the mind of logical construction, of deep study, and earnest intent. He even draws from his opponent the arguments with which he puts him to flight. Basing the contest on principle, moral as well as scientific, and being decided in opinion and positive in declaration, he is, necessarily, brought in collision with investigators in no degree less distinguished and decided and positive in their faith than himself. Hence, it will be perceived by the observing reader, that, "when Greek meets Greek, then," in an emphatic sense, "comes the tug of war."

The extent of his researches, his familiarity with all that is extant in reference to the points in question; the strength and copiousness of his arguments, and the pungency of his criticisms, all indicate the earnest, the laborious, the thorough Medical Scholar. His knowledge must be conceded to be great in amount and various in character, and his teachings in harmony with the *great foundation doctrines of Physiology, as deduced from the elementary laws of the living economy.* His style is manly, perspicuous, and, not unfrequently, classically elegant. His independence of thought is sufficient of itself to recommend him to the respectful consideration of all such as are aware how deeply the world is indebted to the class of independent thinkers, who, when they write, do something more than merely reproduce the ideas of others, which, but too often, are as hackneyed as the terms which make up the resolutions of political caucuses.

While it were folly for his most ardent admirers to claim, either for himself or his work, perfection, it were equally preposterous for his most inveterate opponents to allege it is are not characterized by any distinguished merits.

No one can read what he has written without feeling that he has been held in audience by a superior spirit, or acknowledging indebtedness for what he has done, even though he should write no more. He is entitled to a place in the catalogue of the very first class of Medical Writers;—a declaration which we do not regard as "damning with faint praise," but, in our humble estimation, the highest that man can bestow on man.

Thus, it will be perceived, we have considered the work before us, *firstly*, as regards the author's judgment concerning the actual condition of Medical Science, both when it first appeared, in 1847, and at the present time; or, what the reflecting reader will infer to be the state of his mind, in reference to progress in medical research: *secondly*, as regards the important issue, and the struggle which marks the age, between those philosophers, on the one hand, who seek to confine *legitimate medicine* to the laws of vitality, and the relations and actions of organized structures under those laws, and those other learned investigators, on the other, who are ever intent on accounting for all the phenomena of life on principles deduced from the action and influence of the laws which belong to inanimate matter.

In the first view, we have found ourself compelled, though reluctantly, to conclude that the author has, in the plenitude of his learning, reached a goal—the *ultima ratio*—beyond which he can not proceed; that, in his judgment, no progress has been made—certainly not within the last ten years; or, that his mind has lapsed into a condition of stereotyped invariableness, and, therefore, that it is incapable of change, or of perceiving change. Perhaps, if we had appropriated the language of a dignitary of old to a learned Apostle, and exclaimed, "Much learning has made thee mad," we should not have diverged widely from the truth. In the second, it has given us

great pleasure to accord to him indefatigable industry, profound learning, the possession of a logical mind; of an independence and a boldness which fear no encounter; of a positiveness in declaration, and a sharpness in criticism, which mark the strength of his own convictions; and, finally, to claim for him a place among the very first class of Medical Writers. In the former, most certainly we have uttered nothing in malice, nor have we felt called upon to extenuate aught. In the latter, we have put forth our own convictions of Professor PAINE'S labors, and of the great and ennobling qualities, by which, as an author, he is strongly characterized. Finally, we bespeak, for the Institutes, a place in the libraries of all those of our Profession who would acquaint themselves with the true issue, and its literature, between the School of *Vitalists*, on the one hand, and that of the *Mechanists* and of the *Chemists* on the other.

E. KANE.

A TEXT BOOK OF VEGETABLE AND ANIMAL PHYSIOLOGY. Designed for the use of Schools, Seminaries, and Colleges in the United States. By HENRY GOADBY, M. D., Professor of Vegetable and Anmal Physiology in the State Agricultural College of Michigan; Fellow of the Linnæan Society of London; Corresponding Member of the Albany (N. Y.) Institute; Honorary Member of the Literary and Historical Society of Quebec; and formerly Dissector of Minute Anatomy to the Royal College of Surgeons of England. Embellished with upwards of Four Hundred and Fifty Illustrations. New York: D. Appleton & Co. 1858.

THE above is the title page of a work which commences at the foundation of all physiological knowledge, Histology. In fact, the work is almost entirely histological, highly spiced, however, with physiological explanations. In the opinion of the author, "If the origin (so to speak) of the organic structures in the animal kingdom, be sought for and steadily pursued through all the classes, showing their gradual complication, and the necessity for the addition of

accessory organs, till they reach their utmost development, and culminate in man, the study may (possibly) he rendered an agreeable and interesting one, and be fruitful in profitable results." It is not the object of the work to impart *popular* instruction in *Human* Physiology; and in this respect we can but commend the good sense of the author; for with such an enterprise we confess that we should have no sympathy. The aim is much higher, and contemplates instruction in a system of general Histology and Physiology, such as will prove highly useful to the Botanist and Entomologist, while, at the same time, and for almost the same reasons, it will facilitate more detailed physiological investigations.

The book is richly illustrated by wood cuts — many of them highly creditable to the artist — of original preparations of the author. To the accuracy of these illustrations we can bear testimony, having, not unfrequently, examined many of the originals. The typographical appearance of the work can elicit only admiration.

To be found at the bookstore of FRANCIS RAYMOND in this city. G.

A MANUAL OF THE PRACTICE OF MEDICINE. By T. H. TANNER, M. D., F. L. S., Author of a Manual of Clinical Medicine and Physical Diagnosis, etc. etc.; Licentiate of the Royal College of Physicians; Late Physician to the Hospital for Women, etc. etc. First American, from the Third Revised and Improved London Edition. Philadelphia: Lindsay & Blakiston. 1858.

THIS is a duodecimo volume of 398 pages, and is truly a hand-book, presenting the outlines of a great deal of matter in a very small compass.

Such brief outlines may be useful to a certain class of medical students, who, while attending six or seven lectures a day, can not devote sufficient time to reading more extended productions; and such synopses may also serve a useful purpose in refreshing the memory of the busy prac-

titioner; but, aside from these uses, they can not be considered as tending to the production of well-read and thoroughly instructed physicians. The medical student or practitioner who contents himself with such works, neglecting the more full and extended treatises, and especially the elaborate monographs, can be nothing more than a superficial medical scholar and a practitioner of limited resources. We do not wish to be understood as condemning such brief works altogether, but only as wishing to restrict them to their proper places—not allowing them to serve as substitutes in the library for larger works.

The present work seems to be a good one of its kind; the arrangement is satisfactory, the doctrines are generally correct, and the language brief, direct, comprehensive, and clear.

In saying that the doctrines of the work are generally correct, we do not, however, intend to approve of the expressions respecting the treatment of inflammation, as contained in the first chapter, and more or less distributed throughout the book. In following Prof. BENNETT, of Edinburgh, as the author does, in repudiating the lancet and other depletory measures — denying their curative action in inflammation, under any circumstances, we believe he is far from the truth, though we as unhesitatingly condemn the free and indiscriminate manner in which these measures were formerly resorted to. One extreme is very apt to beget the opposite, and in this case we can not doubt that Dr. BENNETT and his followers, among whom is Dr. TANNER, have fallen into an extreme. When inflammations have reached certain stages, we know it is difficult speedily to remove them by any means, yet we by no means subscribe to the following from our author, as a universal proposition, viz.:

"It is highly probable that, though we may be able to guide inflammations to a successful termination, yet we can not cut them short, and any attempts to do so, will merely increase the patient's danger."

On the contrary, we can not doubt, from repeated observation as well as from theoretical reasoning, that many inflammations in their earlier stages may not only be abbreviated, but absolutely arrested, by proper antiphlogistic measures, and that, too, often without danger to the patient in any degree. Indeed, in not a few cases where inflammation of a particular part has existed for a considerable length of time, and is still extending, depletory and sedative measures may arrest its further progress and save the patient. We are aware that some forms of inflammation are not arrested by such means, and that when the vital powers are low, the patient may, by their use, be speedily exhausted; but these facts only teach great caution and a proper discrimination in their use, and not their total abandonment.

But we can now pursue this subject no farther.

Dr. TANNER'S little work has speedily passed through three editions at home, and will doubtless have a good sale in this country. In many respects, it is worthy of commendation. The Publishers at least have well performed their part.

From the Publishers. A. B. P.

TILDEN & COMPANY'S BOOK OF FORMULÆ.

A LATE evidence of the business enterprise of this firm lies before us, in the shape of a neatly-printed book, the contents consisting of formulæ for making tinctures, syrups, wines, etc., from the Solid and Fluid Extracts prepared at their laboratory.

We have looked through this book carefully, and while find in it much that is of value to those who consume quantities of Fluid Extracts in their practice or sales, yet we can not recommend it for general circulation among either physicians or druggists, for the reason that it proposes the substitution of the officinal methods of preparing such pre-

parations as wines, syrups, and tinctures, by new ones based upon the dilution of Fluid Extracts with suitable vehicles. We look upon Fluid Extracts as desirable, but as yet a non-perfected class of products, and, in some remarks upon these extracts in the August No. of our *Journal*, we pointed out difficulties which lie in the way of perfecting processes for them, which it seems clear to us time and careful investigation only can overcome—assuredly a much longer period than the Messrs. TILDEN have required to put forth their hundred or more Fluid Extracts.

The details of their processes are not generally known, though they state them to be conducted upon scientific principles, and intimate that the crude materials are exhausted by a hydro-alcoholic menstruum of known strength, and thereafter that the resulting solution of active matters is concentrated in a vacuum-pan, whereby a portion of the spirit is recovered, and the solution reduced to such a bulk as to equal by its own weight or measure the original weight of material employed.

Why do not Messrs. TILDEN, in a book gotten up designedly for the Medical Profession—a profession that does not lend its endorsement to secrecy or quackery in any branch of art connected with it—give formulæ for, and details of, the preparation of each extract offered by them? It certainly seems due to the liberal profession whose wants these gentlemen are so anxious to supply.

We have made some experiments in the preparation of officinal wines, syrups, tinctures, etc., from Fluid Extracts of commerce (TILDENS' among them), and can not say that they are satisfactory in regard to external characteristics. How such will compare in medicinal value we are not fully able to say; but from the experience of a few who have tried them it would seem that that comparison is unfavorable also.

V . ile, for want of better ones (made after recognized

and standard authorities — of which, however, we unfortunately possess but few), we can consistently commend the fluid preparations of the Messrs. TILDEN for extemporaneous mixture, and for use in medicine in the natural condition, yet we hold, that no physician who has access to the shop of a competent Pharmaceutist, and, especially, that no Pharmaceutist, is warranted in substituting the diluted Fluid Extracts of the Messrs. TILDEN or any other manufacturing pharmaceutists, for officinal preparations which such dilutions may be designed to represent. Fluid Extracts, as made by our extensive manufacturers, are good, bad, and indifferent; yet, as they are, they possess much practical value, their permanence, concentration, and form recommend them, and, as might be expected, they are largely used. But as they may be classed as yet among secret, or at least, empirical preparations, do not let us have dilutions of them usurp the places of recognized and more definite, if not so concentrated, preparations.

F. S.

AN ESSAY ON THE PATHOLOGY AND TREATMENT OF SCARLET FEVER. By CASPAR MORRIS, M. D., Fellow of the College of Physicians of Philadelphia, etc. etc. Philadelphia: Lindsay & Blakiston. 1858.

THIS is the Second Edition of a work originally published some years ago, in the form of Lectures upon this interesting and important subject. In its present form, it consists of a volume of 192 pages, very neatly got up in cloth; treating in a full and very judicious manner of a "disease than which none is more formidable in its character, and uncertain in its results."

Judging from our own observation and experience among physicians, we should say that respecting no other disease is there so great a desire for obtaining information — the plans of treatment generally adopted, so often proving

unsatisfactory. From our knowledge of the former edition, and from a hasty examination of this, we can recommend the work as furnishing as much light as any other accessible. No extreme or exclusive views are taken, violent, perturbing, and depressing treatment is very properly condemned, and a wise discrimination in the use of remedial measures, adapting them to the varying conditions of different epidemics and cases, is taught.

We have been particularly gratified with the attention given in the Essay to what might might be considered by some as minor matters; such as the importance of keeping the external air passages (the nostrils and throat) as free as possible from obstruction, and a description of the best means of accomplishing the object; the importance of the use of ice for the local affection of the throat, etc. etc. insisting that,

"These *little things* are *great* to little man"

—great, not only in relation to comfort, but to results.

He says, in substance, When the nostrils are filled with a tenacious secretion, obstructing respiration through them, and the throat is swollen, ulcerated, and incrusted, tending to the same results; the exclusion of the proper quantity of air from the lungs, and oxygen from the blood, thus produced, adding to the poisonous qualities of the blood, and increasing the general depression—in fact, cutting off hope,—the use of a moderate-sized syringe is recommended, throwing a solution of simple white, or other form of unirritating soap, through the nostrils, thus washing them out; and in a later stage, when ulcerations exist, astringent solutions, such as of sulph. copper, sulph. lime, claret wine and water, &c. No immediate effect, unpleasant to the patient, other than a little retching and sneezing, will be produced, and these effects will often be very beneficial, dislodging large accumulations, with great relief.

As our space will not justify a more extended notice of this volume, we must close with recommending it to our readers and the Profession. A. B. P.

THE URAEMIC CONVULSIONS OF PREGNANCY, PARTURITION, AND CHILDBED. By Carl R. Braun, Professor of Midwifery, Vienna. Translated from the German, with Notes: By J. Mathews Duncan, F. R. C. P. E., Lecturer on Midwifery, etc. etc. New York: Samuel S. & Wm. Wood. 1858.

This is a compact volume of 182 pages, on good papaper, fair type, and neatly and substantially bound in cloth. The matter of the work is of a highly scientific character, showing the relations of Organic Chemistry to the pathology of the disease in question, evincing in its execution much research and erudition, and presenting the subject in a manner different from any other work to be found in the English language.

It is shown that most cases of Puerperal Eclampsia are connected with disease of the kidneys, albuminous urine, the retention of the elements of urine in the blood, and are in all probability dependent upon the toxæmia (or blood poisoning) produced by such retention.

The work is well worthy the attention of every physician who desires correct pathological and practical knowledge of a very severe, and too often fatal, disease, and may be obtained of the Publishers for the moderate sum of 75 cents. Sent to the purchaser free of postage.

A. B. P.

THE PHYSICIAN'S VISITING-LIST, and BOOK OF ENGAGEMENTS for 1849. Philadelphia: Lindsay & Blakiston.

This pocket companion is well known to the Profession, and has become as necessary to thousands as an almanac or a newspaper. No one who has used it will consent to be without it; and we can assure those who have not, that

it is a very great convenience. The copy sent us by the Publishers is in excellent binding, of the best of paper, and in every respect fully equal to any of its predecessors. They can be obtained in this city of Messrs. Higby & Stearns. A. B. P.

MIND AND MATTER: or, Physiological Inquiries. In a series of Essays intended to illustrate the Mutual Relations of the Physical Organization and the Mental Faculties. By Sir Benjamin Brodie, Bart., D. C. L., Vice-President of the Royal Society. With Additional Notes by the American Editor. New York: S. S. & W. Wood. 1858.

In the above work we find the Physician turned Metaphysician; or, in other words, a man eminent in the department of *Practical* Physiology, an unwearied student of Nature in both her normal and abnormal exhibitions, throwing the light of Physiology upon the subject of mental operations.

It is an interesting and instructive book, one which will have great attractions for the professional, while it is sufficiently self-explanatory to be perfectly intelligible to the general, reader. It is written in a colloquial form, and thus possesses the attractiveness of a highly intellectual conversation between friends.

It is furnished by the Publishers, and sent by mail, free of postage, at one dollar. G.

Editorial Department.

Wanted---Nos. 4 and 5 of this Journal.

By an oversight, we neglected to print enough of Nos. 4 and 5 of this Journal, and we should be greatly obliged to those gentlemen who may have them, and do not care to keep them, if they will send them to us by mail.

HIGBY & STEARNS, Publishers.

Another Conviction upon the Testimony of a Chloroformed Witness.

We copy entire, from the *Montreal Medical Chronicle*, the following report, that our readers may judge for themselves of the *justice* which convicts a prisoner upon the testimony of a witness whose impressions were received while under the influence of chloroform. In this case, too, it will be seen that the evidence of two other witnesses, who were in an adjoining room, *with the door open*, must have been entirely disregarded by the jury. When a man's previous good character, and the testimony of witnesses who were, to all intents and purposes, really present during the operation, are both set aside, and the impressions of a patient, derived while under the influence of chloroform, are received as testimony, it becomes us all to be exceedingly wary in our professional intercourse with female patients. It will be noticed, too, that the patient's linen, which had been sent to a microscopist for examination, was

not forthcoming!—a somewhat significant fact. Guilty, with a recommendation to mercy! What nonsense! *If* the man was guilty, he *deserved* no mercy. Not a circumstance mitigating the alleged crime is shown. His defense was clear and unequivocal, and had not the jury been the embodiment of wooden-headed stupidity, would have resulted in an acquittal. G.

"Dr. John Horatio Webster was placed at the bar, charged with having, on Wednesday last, the 22d September, committed a criminal assault on Louisa Chandler, wife of Mr. James Nichols, of this city.

The complainant, Mrs. Louisa Nichols, was examined by Mr. Monk, Q.C.:—I am the wife of James Nichols, and reside in Fortification Lane. On Wednesday last I went to the Surgery of Dr. Webster on Notre Dame Street; I wished to have the pattern of my mouth taken. I went to the surgery about 10½ o'clock. Before I entered the surgery I remained for a time in the waiting-room. There were two ladies in the surgery when I first entered the waiting-room. The prisoner was called in to speak to me; I then gave him some gold leaf, which he was to use in operating on my teeth. At the same time, I asked him if he could not look at my mouth then; he told me to wait a little, and he would be glad to examine it. I remained accordingly, but not more than five minutes elapsed till he again came into the waiting-room, to show the two ladies down stairs. A gentleman then came in. Dr. Webster then asked me to wait about half an hour longer, till he would operate upon this gentleman. I consented. After this, three ladies and a gentleman came in; they were friends of Mrs. Webster. Shortly after, the gentleman already mentioned left the surgery. The Dr. told me to enter; in the meantime he went into the waiting-room; the prisoner followed me in a few minutes. I stood close to the dental chair, and he examined my mouth. I asked him if he thought it necessary to remove a stump of an old tooth. He said he thought it would be well to take it out; the new teeth would do for life; the stump only cause irritation of the gum. I said if it were necessary to take it out it would be better to have no new teeth. He replied in the negative, and said I ought to take chloroform. He said also, that, under the use of chloroform, he could extract it in five minutes. In the operating chair Dr. Webster administered the chloroform. I did not consent immediately to inhale the chloroform. About five minutes elapsed from the time he proposed till I took the chloroform. During this interval I told him chloroform would make me sick. He replied that I had better take it; it would not influence me very long. This was all

that was said. He applied the chloroform by means of a cloth. I took chlorofom about four months before, and what he administered was the same substance. I did not become immediately insensible. It was about half-past ten o'clock when I went into the waiting-room; about a quarter to twelve when I entered the surgery. After taking the chloroform, the first thing I remember was his bringing the forceps to extract the tooth. I said to him, "Have you not taken it out yet?"—he said "No"; he then administered some more chloroform. I did not perceive how he administered the chloroform, but I felt myself inhaling it. I then became unconscious. At length I became partially conscious. I saw I was not in the chair, but on the sofa; the sofa was not very far from the chair. When I became conscious I saw that the prisoner was sitting along with me on the sofa. When I first became conscious, I felt the pressure of the prisoner's body. (The witness then went on to state to the Court—an improper interrogation he had directed to her—the indications by which she was aware that the prisoner had taken criminal liberties; ultimately she said she heard a bell ringing.) I then threw my limbs off the sofa, and said to the prisoner, "I wish you would send for my husband." I again became unconscious, and felt very sick at the stomach. The next circumstance that I recollect was that the prisoner was sitting beside me on the sofa, and had his hand in an improper position, and that he had placed mine in the same. I then asked him to get a cab to take me home. He said I would be unable to proceed. He then said he had got the wax hot to take an impression of my mouth, and that that was the time to take it. I said nothing. He then carried me from the sofa to the chair, but I was still partially unconscious. He brought the wax, and took the impression of my mouth. While doing this I had not quite recovered my consciousness. When he had taken the impression of my mouth, the bell rang, or some one called, and then he left me. I sat still and vomited considerably; at length I got upon my feet; the prisoner opened the door communicating between the waiting-room and the surgery, and allowed me to pass out. He followed behind me coming down stairs. Passing through the waiting-room, I saw that there were three gentlemen there; on leaving, he told me he would have the teeth ready by Friday, if not, he would send me word. I then went home. All this occurred on Wednesday, the 22d of this month. The second time I came to consciousness, I felt the weight of the prisoner on me. I feel confident of this fact. [Witness proceeded to detail her reasons for this assertion. They were unfit for publication.] She went on—I have no doubt at all that the prisoner was in this position; but at the same time I was not sufficiently conscious to perceive the state of my clothes. He did not extract the stump of my tooth; it is yet in my mouth. When he gave me the chloroform it was with the intention of drawing this stump. He assigned as a reason for not extract-

ing the stump, that he had not gas enough in the chloroform. He administered the chloroform three times. I have already stated, that during the period of consciousness I was lying on the sofa, he sitting on the sofa beside me, and his hand on a certain part of my person. I have now stated all that I recollect. On arriving at my own house, I spoke to my husband. I told him that I would not again go to Dr. Webster's; because I thought that he was a nasty, dirty old fellow. When I perceived the prisoner in the condition I have already mentioned, I recollect pushing him with my hand as well as I could. When I went home I perceived my under-clothes were very wet. I became aware of this circumstance before I left the prisoner's office. I thought it was my own urine, and attributed it to the fact that I had been greatly pulled about. When I first took the chloroform I was setting on the dental chair; when I became conscious I was on the sofa. I do not know how I was removed.

Cross-examined by Mr. Devlin:

About four months ago I took chloroform. It was administered by the prisoner. I was then getting my mouth prepared for a new set of teeth. I took no chloroform before or since until this last occurrence. The first time I took it I was accompanied by my little daughter. My stomach then grew sick; but my clothes were not wet at that time. On Wednesday last, when the prisoner brought me into the surgery, he did not lock the door communicating between it and the waiting-room. The door might have been partially open. When I was in the waiting-room, Miss Webster was there; she was neither reading a book nor playing the piano; she was talking to a friend. When I entered the dental chair, I took off my bonnet and shawl and placed them on the sofa. The prisoner told me to take them off. While I was disrobing he went to get the chloroform. At the time I went into the dental chair I heard no voices in the waiting-room. There is another door leading from the surgery into the laboratory or workshop; it was not wide open, but was partly open like the other. It was not then open enough to enable me to look into the workshop. I saw no young man in the workshop when I went into the surgery; but when I was prepared to come away I did. The person I then saw was talking to a little boy; the taller of the two was standing opposite the door at the far end of the workshop, the little boy on a bench; the tall young man was standing there talking, I suppose; I don't know what he was doing. I don't recollect if I spoke to the tall young man.

Rowland Webster the young man alluded to was brought forward, and recognized by the witness. A boy was brought forward also, but she was not certain of his being the boy to whom she alluded.

Cross-examination continued: I might have heard the tall young man ask me if I were sufficiently strong to proceed home. I did not hear this young man call the prisoner from the waiting-room to see me

before I left; but he might have done so. Before I left, the Dr. was called into the waiting-room; I was in the dental chair at that time. I do not remember having asked the Dr. to give me chloroform. Both these doors were partly open when I sat down on the chair. I think what relieved me of the weight of his body was the ringing of the bell. At the time I was partially unconscious. I did not feel this pressure a second time; I did not feel the weight more than a second; he was then called away by the bell I think; the weight was instantaneous; I was unconscious from the time I entered the chair till I felt myself upon the sofa; at least I was partially so. I felt the prisoner's hand in an improper position upon my person, but I did not see it. I did not see my own hand in a similar position upon his. The first think I saw on opening my eyes was the prisoner adjusting his clothes. I felt but did not see him sitting on the sofa beside me. I swear that the person who sat beside me on the sofa was not the tall young man.

Mr. Devlin — By what means can you tell that?

Witness — Must I answer this question?

Mr. Devlin — Yes.

Witness — I can say without doubt it was not the young man; because I heard the Dr. speak. I heard him speak when he was addressing to me improper interrogations; but I think I said nothing except wishing that my husband were there. With great effort I was enabled to say as much as this. I made no effort to shout to any one in the next room. [The witness gave this answer after much hesitation.] When I said to the prisoner that I wished Mr. Nichols was there, I was lying on the sofa on my side. I did not open my eyes. I made an effort to get off the sofa, and threw my legs out; he had got off before this, to answer to some one who called or rang for him. I did not then call for assistance. When the prisoner then left me, I neither saw the tall young man nor the boy. Passing out of the waiting-room, I did not tell the gentleman there that I had been abused. I spoke to no one in the house about what had happened. I made no promise to come back on Friday. I was carried back into the dental chair a second time, but I did not see the young man or boy. The sofa on which I was lying is within a few feet of the workshop door, but I never measured the distance. When I came home I told my husband that the prisoner was a dirty, nasty old fellow. This occurred on Wednesday. My husband wrote to the prisoner on the same night. On Saturday we laid the facts before Mr. Coursol. I had communicated with a lady friend of mine, Mrs. Laurie, about the abuse I received. I don't know why my husband and I did not immediately go before a court instead of waiting till Saturday. It was the Doctor, and not the young man who showed me down stairs. When I first visited Dr. Webster in April last this young man, Webster, was present watching the effect of the chloroform administered. I swear that I had no conversation on

Wednesday last with the young man, Rowland Webster. On the day in question the prisoner did not say that he was unwell. I was forty-one years of age last August. In the surgery of the defendant no one assisted me to dress. I reached home; I remained about the house all day. I had no friends at my house that evening. During the interval between Wednesday and Saturday my husband and I were talking about the abuse I received; we were talking of it all the time. I told some friends. When I took chloroform in April last, Dr. Webster told me that it caused me to cry and fight. I don't recollect if I were told that it produced any other peculiar effect. Last Wednesday, when talking these circumstances over with my husband, I had a perfect recollection of all that occurred. I did not fully remember everything till the next day, Thursday. I sent my under-dress to a Doctor for examination; the name of the medical man is Dr. Fenwick. The articles were a chemise and a cloth; the latter I wore for a certain object. I did not take it off in the surgery, but the prisoner managed to place his hand underneath the cloth, though it was wet and soiled, but not removed from the place where I myself put it. I have not heard what is the result of the examination of the cloth. When sent to the Doctor it was not much soiled. When on the sofa, this cloth was tied on in the same position as I had placed it in the morning. I said that I believed the prisoner had effected his purpose, though this cloth was tied on. I told this to my husband.

Mr. Devlin. — Did you not swear that the cloth, when you got up off the sofa, was in the same place as when you lay down?

Witness — Of course it was; where else would it be?

Cross-examination continued. — I believe he violated my person.

Mr. Devlin — How long did he take to effect his purpose?

Witness — I do n't know.

Mr. Devlin — Did you not swear that the pressure was instantaneous.

Witness — Only at that time.

Court — You may go down.

James Nichols, husband of the last witness, examined by Mr. Monk, Q. C.:

Witness — My wife told me Dr. Webster was a villain. She explained to me the reason of this assertion, but not till about two o'clock in the morning; she then told me he had violated her person; she told me he was aided in his design by chloroform. I saw when she came in that she was laboring under great excitement. On Friday morning, having been made acquainted with the details, I laid the case before Mr. Rose.

Cross-examined by Mr. Devlin. — When she came home I gave her some brandy and water to revive her; she eat a little rice-pudding afterwards.

Mr. Devlin — I now leave it to the Court if it is necessary to go upon a defense. I think the Court will say there is no evidence to lay before the jury on part of prosecution.

Mr. Monk — What has been brought out in the cross-examination is, I think, sufficient.

Court — Penetration has not been proved; and the jury can not go upon the belief of a woman while under the influence of chloroform. You will therefore, Mr. Devlin, take up the case as if it were one of attempt at assault; the question of rape must involve penetration or emission, but neither has been proved. So you need not address the jury as if your client were indicted for capital felony; that has not been at all proved.

Mr. Tate, architect, examined by Mr. Devlin.

In company with Mr. Brown I examined the rooms of Mr. Webster. It would require some amount of force to shut the door leading from the laboratory to the consulting-room; the lock was on that side of the door which was within the laboratory.

Mr. Monk objected to the evidence of descriptions.

Mr. Devlin said he wanted to prove by the plans of the apartment he then had in court that the door between these rooms was so situated that the person working in the laboratory could see from his bench what was taking place in the surgery.

(The plan of the apartments were sent up to the Court.)

Court — Have you got the measurement of the rooms.

Witness — Yes. (The witness was here directed by the Court to take the plan of the apartments to the jury, and explain their length and dimensions, &c., with the position of the doors, but not to say anything about the arrangement of the furniture.)

The witness complied.

Examination continued. — If the door were partially opened, any one working in the laboratory, unless he turned his back, must see what is going on in the surgery; and hear also, as the place is so small.

By Mr. Monk — I examined the apartments yesterday. I do n't think any of the furniture was removed.

Rowland Webster examined by Mr. Devlin.

I am a cousin of the prisoner's, and have been engaged with him learning his profession, since December last. In the month of April last I saw the prosecutrix in the surgery; she came to have teeth extracted. On Wednesday last, I saw her [in the same place. I was melting gold that day; using a forge for the purpose. I saw the Dr. give her chloroform. He then made an attempt to extract the tooth. I saw her when she was taken from the chair and when she lay down on the sofa. This was after twelve. When she lay down, the Dr. went into the parlor. There were some persons there; but I do n't know who they were. From my place in the laboratory I could see the sofa. I had no conversation with her till she was about to go home. She asked me if I thought she were strong enough to go home. I then called the Dr. from the parlor. He told her she has better lie down again, if she did not feel strong enough to go home. The Dr. went back to the parlor; she then put on her bonnet,

and the Dr. came in again and told me to see her out. I swear I was the person who escorted her down stairs. From the time she came in till she left, I saw nothing occur to her. Since last December, the door between the laboratory and surgery was never closed; there is no lock nor key for it. There were people in the parlor when she came in and when she went out. There was a gentleman in the chair before she occupied it. From the time she came in till she left, I swear she was not insulted by the prisoner.

By Mr. Monk. — I am there every day. The door between the laboratory and surgery is always open. Mrs. Nichols came into the surgery about half-past eleven. That was the first time I saw her that day. There were some patients inside when she came. I do not know when she arrived. During the time Mrs. Nichols was in the surgery the door was about half open. I was in the laboratory all the time, for I had to keep the fire of the forge alive all day. I only left the laboratory when she prepared to go home, about half-past one o'clock. I was melting gold in the forge during the time she was in the surgery. I began this labor at ten o'clock, and worked at it for about three hours; then I began to melt zinc till three o'clock. The chloroform was administered about ten minutes after she entered the dental chair. She then lay down upon the sofa for the remaining hour and forty minutes. I did not see her or watch her all the time she was on the sofa. When she walked from the chair to the sofa she was under the influence of chloroform.

Court — Is it customary to give chloroform in the presence of witnesses?

Witness — Sometimes.

Court — Did you see it administered?

Witness — Yes.

Court — What is the longest time you have found females remain under the influence of chloroform?

Witness — An hour.

Court — Where are they placed?

Witness — On the sofa.

Court — How do they get there? Does the prisoner carry them?

Witness — He leads them, or they walk themselves.

Court — Does he leave a patient to remain an hour under the influence of chloroform, without looking at the state in which they are?

Witness — I do'nt think he does, sir.

Court — Would he see them four times in the course of an hour?

Witness — Yes.

Court — How often did he visit Mrs. Nichols during the time she was under the influence of chloroform?

Witness — He did not visit her at all.

Court — Did you ever know any other female remain an hour and a half under the influence of chloroform and know the patient to be unattended?

Witness — No.

Court — Why was it done in this instance?

Witness — I do'nt know.

Court — You attend upon women who take chloroform to have teeth extracted?

Witness — Sometimes.

Court — You may go down.

Mr. Jas. Goodrich examined by Mr. Devlin. — I once took my wife to the prisoner, and she inhaled chloroform to undergo an operation. During the remainder of the day she was under the strongest impression that she had been taken into a room and violated, and continued to hold the conviction, though I told her I was by her side all the time and had my finger on her pulse.

Mr. Monk — She thought she was violated?

Witness — Yes.

Mr. Monk — And whom did she accuse?

Witness — If the truth must be told she supposed it was Dr. Webster; and it was with great trouble that I disabused her mind of the idea. She was under the influence of chloroform for about ten minutes.

Dr. W. Nelson examined. — I have known the defendant for 16 years. I was about the first in Montreal to use chloroform. It produces the most contrary effects in different individuals. I once operated on a woman who had a tumor. I got the loan of an apparatus to administer ether; I received it from Dr. Webster. The patient took ether, and I removed a tumor of seven pounds weight. The woman for two days held the opinion, though many of her neighbors were witnesses of the operation, that I abused her. The witness related one or two other incidents to show the peculiar effect of ether and chloroform. The Dr. then went on to state his high opinion of Dr. Webster; how he had recommended him as a dentist to some of the ladies of an hospital connected with the Seminary; and introduced him to his own patients in the city. He was thunder-struck when, on Sunday, he heard that Dr. Webster had been charged with such an offense, because he never knew or heard anything which could affect the character of that gentleman.

Dr. Jones was examined by Mr. Devlin to show the effects of chloroform. — I have known ladies use language, when under the influence of chloroform, that they would blush to hear at any other time. They were most respectable ladies; the language was awful; where they got the language I do'nt know. [A laugh.]

Court — How do you account for this woman lying an hour and a half under the influence of chloroform.

Dr. Jones — To say the least of it, it was gross neglect. Medical men may leave a patient under the influence of chloroform, but then a nurse is placed beside them. A person may be as long under the influence of chloroform as this complainant, but it has not come to my knowledge.

Daniel Webster, a youth of about fourteen years of age, was examined by Mr. Devlin. — I am a week in Montreal to-day; I came to Dr. Webster's to see my brother, Rowland. I don't know if the complainant was the woman I saw in Dr. Webster's surgery on the 22d instant. I think it was she. About twelve o'clock she lay down on the sofa. About half-past one my brother went down stairs with her. My brother and I were in the work-shop all the time she was on the sofa. The woman called him in once and he went in. Afterwards she went down stairs with him.

James Nichols, the husband of the complainant, here came into the box and produced the letter which he sent to the prisoner on hearing of the conduct of the latter towards his wife. It was as follows: —

"September 22.

"Dr. Webster — I was much pained and surprised at the account of your vile conduct towards my wife while she was unconscious and helpless under your professional care. I have no words to express my sense of such conduct, and will await a legal exposure. In the meantime you need not proceed with the teeth, as my wife will not again place herself in your power. James Nichols."

The following was the reply: —

"I am surprised to receive such a note from you. My reputation is too well established to be affected by anything. There is not the slightest foundation for such a complaint, as my laboratory was constantly open, with no less than three persons in it all the time, and as many more waiting in the room for their turn." The remainder of the letter was occupied with reference to $14 which the prisoner owed Mr. Nichols for gold leaf, and it went on to say that the writer expected better treatment from Mr. Nichols. The letter bore no signature.

Justice Aylwin then charged the jury, explaining carefully the case in regard to the offense the prisoner had to answer, — namely, attempt to commit rape, or assault. The learned Judge explained that the charge of rape had been discarded in an early part of the trial; and impressed upon the jury, with much solicitude, that the question they had to decide was whether, taking the evidence of the prosecutrix in all its particulars— taking into consideration the position which the prisoner held and the risk to be run if, under his circumstances, he should endeavour to violate the persons of females; whether, looking at everything, he was really guilty of an attempt to commit rape or even an assault. His Honor, in conclusion, remarked on the singular conduct of the husband of the female, and observed that it was extraordinary he sat down to write a letter on the night of Wednesday, waited an answer by mail on Thursday, and took no steps till Friday; having invited the jury to this and other facts, the learned Judge concluded by advising the jury, if they entertained a doubt to give the benefit of it to the prisoner at the bar.

The jury retired at six o'clock, and, after an absence of about three

hours and a half, brought in a verdict of "Guilty of an attempt to commit rape, with a recommendation to mercy." The decision seemed to take the Court by surprise.

Mr. Devlin — Are the jury individually agreed?

One of the jury — Yes.

Mr. Devlin — Then to-morrow morning I will make a motion in arrest of judgment.

New York State Inebriate Asylum.

We see by the papers that the corner-stone of the New York State Inebriate Asylum was laid at Binghampton, on 24th of September, and that addresses were made by Hon. B. F. Butler, Dr. John W. Francis, Rev. Dr. Bellows, Hon. D. S. Dickinson, and Hon. Edw. Everett, and a poem delivered by Alfred B. Street, Esq. The exercises were spoken of as having been extremely interesting and successful. We hope the work will speedily go on to completion, and that the value of such institutions and means for treating inebriates will be fairly tested, showing how far the terrible evils of intemperance may be mitigated—evils which all means hitherto have failed to prevent. We look forward to the results of this experiment (for such it must be regarded), with great interest—not without hope, yet perceiving many difficulties in the way of its extensive usefulness. It will at best be but a limited *palliation* of a great and general evil, and will not relieve philanthropists from the necessity of renewed and continued efforts for prevention. No class of men have stronger motives to philanthropy than physicians—none see more of the evils of drunkenness, and none have greater opportunities to exert an influence for good or evil on this subject, than they. All conscientious men in the Profession will consider well their responsibilities and duties in relation to the matter, and will not only guard in their prescriptions against doing positive evil, but will, if they do their full duty, exert a positive influence in the right direction.

A. B. P.

Selected Articles, Abstracts, &c.

On Natural and Artificial Lactation.

By Wm. Henry Cumming, M. D.

(*Continued from October No.*)

Normal Lactation in the Human Race.—In vigorous women the secretion of milk is copious. And this large amount is indicated in the unimpregnated state by the great development of the mammary glands. In no animal with which we are acquainted is there a larger promise in this respect. The amount ordinarily furnished by a good nurse is from one and a half to two quarts daily, or from four to five pounds. But cases often occur in which two children receive abundant supplies from one mother, involving a secretion of eight pounds at least. An infant three months old will take from forty-eight to sixty-four fluid ounces daily in six or eight half-pint doses. During the first year therefore he will take from 1000 to 1300 lbs.

What is the composition of this milk? Without entering into long and tedious details, it may be simply said that by the latest, and apparently the most exact analysis, its composition is:—

Butter	20·76	1000 lbs.	Butter	20·76 lbs.	1300 lbs.	Butter	27	lbs.
Casein	14·34	therefore	Casein	14·34 "	therefore	Casein	18½	"
Sugar	75·02	contain	Sugar	75·02 "	contain	Sugar	97½	"
Water	889·88		Water	889·88 "		Water	1157	"

In 1000 lbs. of milk there are 1·6238 lb. of salts, or 26 ounces, of which 0·5736 lb. or 9 ounces, are phosphate of lime.

In 1300 lbs. of milk the salts amount to 2·1 lbs., or 33½ ounces, of which 12 ounces are phosphate of lime.

It thus appears that, during the first year, the child receives from 110 to 143 pounds of dry solids. He may thus readily gain 15 or 20 pounds in weight (implying less than three pounds of dry solids), and yet have a large residue, from 107 to 140 pounds, to be expended in the production of heat and in the activity of an energetic vitality. A child thus nourished can make teeth and bone without difficulty; his functional activity need

never be suspended for want of material; atmospheric changes may be successfully resisted, and zymotic diseases will have little power.

And where, in the whole range of animal existence, will you find a more beautiful object than a vigorous, healthy child? Look at his deep and peaceful sleep; see the bright sunshine of a pleasant dream upon his gentle face. Look at him as he awakes. Listen to the sweet sounds he makes for his own pleasure, or to attract the notice of those near. And if he should at last break out into loud cries, see how quickly all traces of sorrow pass away and bright smiles replace them when his mother comes. See the eagerness with which he takes his food; the intense earnestness with which he clings to the abounding breast; and the full and deep satisfaction when this want is supplied. And when able to play, how loud and merry his laugh; how joyfully he receives the caresses, or rides upon the knee, or springs in the arms of the parent or nurse. There is no happier animal than a healthy child; nor is there anywhere to be found a more regularly operating and uninterrupted harmony of the vital functions. The beauty and energy of the outward frame are not more striking than the symmetrical development of the mental powers. The close and careful and patient observation, the cautious experiment, the unsuspecting credulity, the prying inquisitiveness, who has not beheld with admiration and delight?

This is infancy under the influence of favorable physical conditions. But, alas! how few childen among us progress thus steadily and rapidly during their first two years! How commonly do we associate with infancy the idea of sleeplessness and fretfulness, and all manner of gastric, intestinal, and nervous disorders! Why is it that "teething" does not mean the steady, silent, unnoticed development of the teeth, but salivation, and fever, and diarrhœa, and convulsions, and death? It is not pretended that there is never any other cause but insufficiency of proper food, but there is reason to believe that four-fifths of the sufferings of infancy arise from this source. And how can it be otherwise? Look at the mothers, and say how many of them can give daily three or four pounds of good milk to their nurslings. How many can furnish 110 or 140 pounds of dry solids in the first year? How many can satisfy, can fully meet the demands of even a feeble child? *A strong, vigorous, fat woman* almost always loses weight while nursing her child. The milk draws away more than the stomach of even such a woman can replace, and the balance is taken by absorption from her previous accumulation.

And here listen to an important practical remark: A woman loses in an ordinary parturition not more than 20 pounds, containing less than 3 pounds of dry solids. This amount furnished in nine months is at the rate of 4 pounds of dry solids a year. Many women fail to furnish fully even this small amount. The infant at birth is small and meagre, looking like a starveling. Is it to be expected that such a mother will make a successful

nurse? If unable to furnish this small amount, how can she supply thirty or forty times as much?

The truth is, that a woman in fully nourishing her child, must furnish as much milk in proportion to her weight as a good cow. A woman weighing 130 pounds will give daily 4 pounds of milk, containing about 5 ounces of dry solids; the cow weighing six times as much (780 pounds), will give 20 pounds of milk, containing 30 ounces of the same. It should not then surprise us that so many mothers fail to supply enough food for their infants. It requires great physical energy and powerful digestion to perform this work. How few mothers are thus endowed! If we may judge by the amount of food consumed by a vigorous woman during the period of lactation, we should decide that the ordinary labor of a working man is less exhausting than the function we are considering. Certain it is that a vigorous woman of strong digestion, while nursing a child, will eat largely, and yet lose weight.

The cases in which natural lactation fails are so numerous as to excite the deepest concern. Human milk can seldom be obtained, and none of the usually employed substitutes ordinarily succeed. Is it then too much to hope that physicians will give serious attention and thoughtful consideration to a plan offering a substitute for human milk scientifically correct and practically successful?

From what has been said of the adaptation of milk by its peculiar and admirable constitution to the wants of the young animal, it follows of necessity, that nothing but milk can be proposed as a substitute for the natural food. The only kind that in this country can be readily and certainly obtained, is that of the cow. But the various kinds of milk are not identical in composition, being adapted to the different degrees of development at birth of the young. The ruminants are the most advanced in this respect, the human infant is far behind. It can not then be supposed that milk adapted to the stomach of a calf would suit that of a new-born child. Common observation agrees with chemical analysis in declaring that there is too much casein in the milk of the cow to be tolerated by the child. This is a well-known fact, and every one waters the milk. But "How much water must be used?" and "Will watering do no harm?" are questions to be answered only by careful study of the milk and close observation of its effects upon the child.

Cow's milk contains	Butter	38·59	While human milk contains	Butter	20·76
	Casein	40·75		Casein	14·34
	Sugar	53·97		Sugar	75·02
	Water	866·69		Water	889·88

Cow's milk, therefore, contains nearly three times as much casein as human milk, but less than twice as much butter. In cow's milk, the butter is to the casein as 100 to 105; in human milk, as 100 to 70. If then, by dilution, we reduce the butter to 20·76, we shall have 21·92 of casein,

or 50 per cent. more than in human milk. With such an excess of casein, we can not hope to succeed. The stomach of the child can not digest it, and it will thus pass through the intestinal canal, irritating as it goes. Debilitating diarrhœa and, perhaps, vomiting will occur, and the attempt fail. This is the usual experience of those who use cow's milk for infants, and often leads to the abandonment of milk and the substitution of farinaceous food.*

If, by a further dilution, we reduce the casein to 14·34, we have only 13·58 of butter, or less than two-thirds of the proper proportion. Such milk may for a season seem to suit the child, but before long it will be found that he does not thrive. The reason is plain. The right proportion of butter is 20·76; this warms a child, and supplies nervous energy. But, by withholding one-third, you lower the temperature of the body and deprive the nervous system of one-third of the special nerve-food, the indispensable lecithin. What wonder, then, that in a short time pallor and languor supervene, and the health evidently declines. Continue this food, and there is one result—starvation. Restore the full supply of butter, and, if matters have not gone too far for recovery, warmth and energy will gradually return, the downward progress be stayed, and vigor replace debility.

It is thus evident that by no mode of dilution can ordinary cow's milk be made a substitute for human. There will be in every case an excess of casein, or a deficiency of butter. So long as the butter is to the casein as 100 to 105, instead of 100 to 70, so long must dilution fail to adapt it to the wants of the child. But if this original proportion could be changed to that existing in human milk, we might have hope of success. And we proceed to show how this may be done.

If we leave at rest for four or five hours ordinary cow's milk, and then remove and examine the upper third, we find in it 50 per cent. more but-

*The food of infants should be all absorbed. During the fœtal state, the food of the body is obtained by endosmosis from the mother's blood. During the period of lac tation, it comes from the mother's milk. In this milk there is no refuse matter; all is absorbed and passes into the circulation. No portion of the milk passes from the stomach through the intestinal canal to the rectum. The feces of infants are the excretions of the intestinal canal and its various glandular appendages. The lower part of the canal may thus be considered as the excreting duct of the liver, pancreas, and the glands of the mucous surface.

What wonder, then, that this duct should be irritated by the presence of foreign bodies (lumps of curd, starch granules, etc., etc.), and that this irritation should continue so long as these foreign bodies remain in contact with its surface?

No fact is more interesting and important than this, that persistent diarrhœa often ceases at once when suitable food is given. By suitable food we mean food that is all absorbed. Three or four hours after the first dose of such food, the diarrhœa often ceases entirely.

Bearing this truth in mind, let us never expect health so long as foreign substances are found in the feces of infants. Even small and smooth particles of curd produce great irritation, and, in many cases, the ingestion of such food produces almost immediately a discharge of mucus holding in suspension these offending substances.

ter than it at first contained. In round numbers, its butter is no longer to its casein as 100 to 105, but as 150 to 105, or as 100 to 70. If then, by dilution of this milk, we reduce the butter to 20·76, we have 14·34 of casein, as in human milk.

Another, and in some respects, a better mode of obtaining the same result is by using the latter half of the milk furnished by the cow. The former half contains 22·18 of butter to 41·63 of casein, while the latter half has 54 of butter to 38 of casein. Here, again, the right proportion exists, and, by proper dilution, may be made most accurately to resemble in its chemical constitution human milk.

To show the accuracy of this imitation, let us prepare some of this milk by the addition of sugar and water. Its actual composition is butter 54, casein 38, sugar 53, water 855. By adding sugar 142 and water 1458, we have butter 54, casein 38, sugar 195, and water 2313. Reducing this to thousandths (that we may compare it with the composition of human milk, as previously given), we have butter 20·77, casein 14·61, sugar 75, and water 889·62. The difference is unworthy of notice.

Not only may ordinary human milk be thus closely imitated, but the colostrum also. To do this, during the first month of the child's life, we must use milk containing from 75 to 80 thousandths of butter, or from 94 to 107 per cent. more than the ordinary milk of the cow. This exceedingly rich milk may be obtained by taking the upper *eighth* instead of the upper *third* of milk left to repose for four or five hours. It may also be obtained by using the last *tenth* of the milk furnished by the cow. In the following schedule, the milk of the first month is of this peculiarly oily kind.

It will be seen from this schedule that, by the gradual diminution of water, an attempt is made (in imitation of the natural process) to adapt the food to the growing energy of the child. It will, of course, be understood by every practitioner that, in this schedule, age is used to indicate development. Some children are two or three months behind their age, and must be fed accordingly. In general, it is better to begin with milk more diluted than the age and development would seem to indicate, and then gradually increase its strength. It is better that the food should be insufficient than that it should be indigestible.

SCHEDULE.

For a child from 3 to 10 days old.	Milk 100	Water 2643	Sugar 243
" " 10 to 30 "	"	" 2500	" 225
" " 1 month old	"	" 2250	" 204
" " 2 months old	"	" 1850	" 172
" " 3 "	"	" 1500	" 144
" " 4 "	"	" 1250	" 124
" " 5 "	"	" 1000	" 104
" " 6 "	"	" 875	" 94

For a child	from	7	to 6	months old.	Milk 100	Water 750	Sugar	84
"	"	9	"	"	"	675	"	78
"	"	11	"	"	"	625	"	73
"	"	14	"	"	"	550	"	67
"	"	18	"	"	"	500	"	63

The infant should take this food by suction. For this there are several reasons. 1st. It is the natural mode; 2d. We can not otherwise administer the food at so uniform a temperature; 3d. We can not otherwise secure a free flow of saliva; 4th. We may thus feed the child in the natural posture, the recumbent. There is less danger of regurgitation, and he sinks to sleep quietly after feeding, if the time for sleeping has come.

An eight ounce vial, with a quill rolled in a long strip of Swiss muslin for a stopper, is the best arrangement for cleanliness and convenience. Tubes having narrow passages can not be readily cleansed.

A child ten days old will take about thirty-two ounces daily in eight four-ounce doses. The doses will increase in size and somewhat diminish in number, so that at three months seven eight-ounce doses are usually taken. The milk should be given at regular intervals; the good effects of methods and strict regularity in this matter are very apparent. The child should be early trained to pass six or eight hours at night without feeding. The temperature should be from 100° to 104°. The child should not be allowed to take the milk too rapidly; ten or fifteen minutes should be given to each dose. The stomach will not then be too much distended, the liquid part being quickly absorbed.

This food thus administered may well be styled *artificial human milk.* In chemical composition, it most closely resembles the natural secretion of the mammary glands of vigorous, healthy women, and it offers to the child all that he needs for growth, development, warmth, and activity. A careful observation of its effects for several years has led to the conviction that it leaves nothing to be desired, and that, on this food, an infant may be reared with admirable results. And by this we mean that health, uninterrupted health, with vigor and energy of the bodily functions, may be regarded as the natural result of the use of this food. We mean that gastric and intestinal disorders do not follow its use, as they so often do that of the milk of mothers. We mean that under its use dentition will be ordinarily a painless process, and that the teeth will be strong and durable. Believing that a large proportion of the sickness and death of infants is the result of insufficient and improper food, we feel sure that, by the use of this artificial human milk, the health and lives of tens of thousands might be annually preserved. We believe that, if generally used, the influence upon the next generation would be evident in a visible increase of health and vigor. In our own household it has proved of priceless value, and we desire that other households may share the benefit.

It is an undoubted fact that in many, very many cases, the function of lactation is imperfectly performed. This deficiency arises from two sources, imperfect development of the genital organs (including the mammary glands), and general debility of the vital functions. The season of puberty extending from 13 or 14 to 18 or 20 years of age, is the only period during which the generative apparatus can be well developed. If this season be lost, the evil can never be repaired. The development must occur *then* or *never*. How important, then, that girls should enter upon and pass through this season under the most favorable physical conditions. Good food, good air, sunshine, muscular exertion, every thing that tends to bodily vigor, should be secured to them during this period of life. Sedentary occupations, excessive mental exertion, late hours, insufficient sleep, are evidently most unfavorable to development. And yet in this last sentence we have sketched the history of a very large number of girls of all classes. The daughters of the rich give too much time to study, to reading, to music, and the other fine arts, and are thus deprived of sunshine, fresh air, vigorous and invigorating exercise, and consequently of abundant and nutritious food. The daughters of the poor suffer from confinement by needlework or some equally sedentary occupation. The long-continued labor in manufacturing establishments is a fruitful source of this evil. In all these cases the bodily powers are impaired, very little nutriment is obtained, and consequently the great changes belonging to the age of puberty can not fully take place. The chest and pelvis are not properly developed, the menstrual function is not regularly and fully and painlessly established, and the mammary glands fail to attain their proper size. Nothing is more evident than the truth of these statements. Painless, regular and full menstruation is rarely seen, while irregularity and agonizing pain in connection with this function are very common. In many cases this want of fullness of development is such that marriages are unfruitful, at least for a long time. And when impregnation *does* occur, the period of gestation is one of nausea and lassitude and debility. Abortions frequently take place and impair most seriously the general health. And in more fortunate cases, how often is the child at birth feeble and ill-developed. The mother's strength is still further diminished by the labors, and sufferings, and losses of parturition. Her breasts do indeed become turgid, a milky secretion takes place, but it is miserably insufficient for the child. It continues for a few weeks, and then ceases. Every physician knows these facts by personal observation; they are constantly occurring.

In such cases the child is not suffered to perish without an effort to save him. Occasionally a good nurse is obtained, who can fully supply his wants. But good nurses are rare, and nurses of even an inferior description are not to be found in sufficient numbers to supply one-tenth of the children needing food. Cow's milk is often tried and often

abandoned, because of the disorders it produces. Panada, arrowroot, cornstarch, or some other farinaceous food is then used by some mothers, while others use various preparations of flesh in the form of broths. The consequences to the children, of the use of these various articles of food, are most injurious. Pallor, languor, debility, indigestion, vomiting, diarrhœa, painful and difficult dentition, convulsions, marasmus, cholera infantum, and dropsy of the head, are some of the results of this imperfect and improper supply. The feeble infants are unable to resist atmospheric changes, so that the winter's cold and the summer's heat are almost equally injurious, while the starving and wasting body offers to zymotic diseases an admirable nidus. Tubercular deposits frequently take place, and in all these ways the mortality is fearful. Pestilence ever follows close in the steps of famine, and these little starving children are swept off by thousands.

In view of these grave facts, what is our duty as the medical advisers of the people? We should seek to influence by precept and example the parents and guardians who have girls under their care. We should urge them to use every effort for the prevention for the future of these evils, now, alas! so common. We must endeavor to have the next generation of women healthy and vigorous, able to bear children and rear them too, so that they may thrive and prosper

And in the many cases all around us of children now needing food which their mothers' breasts fail to furnish, we should teach the mothers to prepare such food as is really a substitute for human milk. Turning away from starches and all such innutritious substances, we should show them how to obtain from the milk of animals *true food.* In the country this may be easily done, and mothers should be instructed how to use it, modifying it under medical advice, to suit the age and development of the child.

But what shall be done in cities? Shall the thousands there perish by starvation, or shall they too be fed? Why may not the country supply food for *them* as well as for the rest of the population? True, it will demand care and skill to conduct such an enterprise, but how can care and skill be more usefully employed than in rescuing these little wretches from the doom that awaits them? No physician is so useful as he would be who should successfully perform this work. "The blessing of him that was ready to perish," would come upon him, and he would cause many a mother's "heart to sing for joy."

The details of this enterprise would be few and simple. The latter half of the milk of the cow should be used for the children, and diluted and sweetened for each child separately. It should then be bottled, and labelled, and addressed. It should be distributed daily. The physician having charge of its administration should visit each child at least twice a month, to ascertain its progress, and direct the composition of the milk in accordance with these observations of his own. Care and

skill will here produce admirable results, and no parent, after seeing them, will fail to obtain this food for his hungry little ones.

On this plan the children in cities might be as well fed as those in the country, and much of the dreadful mortality be avoided. How much better this than to spend months of anxiety over a starving child, while the physician is vainly seeking to relieve his sufferings with drugs. He needs butter and casein; give him these in proper combination with sugar and water, and there may be hope. Without these, hope is vain.

WILLIAMSTOWN, Mass., May, 1858.

On the Value and on the Indications of Perchloride of Iron Administered Internally in the Treatment of Erysipelas.

THE use of the Perchloride of Iron in the treatment of Erysipelas has lately been brought again into notice by the publication of a thesis by M. MATHEY, and by some observations made by M. ARAN, physician of the Hôpital St. Antoine, in Paris. M. MATHEY relates ten cases of Erysipelas treated with this medicine, and his conclusions are contained in the following remarks:

The action of Perchloride of Iron on Erysipelas is evident, and the course of the disease is modified a short time after its administration. In fact, on the second day, and sometimes even on the first, M. MATHEY has seen the disease become limited and circumscribed, and its further progress arrested. As to the duration of the disease, the effect of the Perchloride is still very remarkable: not only is the progress of the Erysipelas sensibly modified from the first few hours which follow the administration of the medicine, but it is completely arrested; the radical cure of disease is obtained in a very short time. It was observed that in ten rather severe cases of Erysipelas, treated by the internal use of Perchloride of Iron, three were cured in two days, three were cured in three days, two were cured in four days, one in five days, and one in seven days. It can not therefore be denied that Erysipelas is advantageously modified by the internal use of chloride of iron; that the cessation of the symptoms proper to Erysipelas is sometimes very rapid after the administration of this medicine; that in a series of ten observations, made upon varied cases, this treatment never failed; that even where its efficacy may be doubted, it has never given rise to any bad symptom; and that when administered in the dose of thirty drops to a healthy subject, it has never given rise to any painful sensation, and has never produced any notable functional disturbance.

[*Medico-Chirurgical Review*, from *Bulletin Général de Thérapeutique.*

This is exactly in accordance with our experience for several years and with the experience of several of our judicious and reliable medical friends, and we hope will arrest the attention of our readers. In a recent visit to Philadelphia we found that in the Pennsylvania Hospital the virtues of the Muriated Tinct. of Iron were recognized in Erysipelas. It should at least be tried by all. A. B. P.

Pharmaceutical Department.

Extract of Rhubarb.

Prof. I. J. Grahame, of Baltimore, in a paper reviewing the present formulæ for making an extract of this drug, states that the presence of so large a proportion of water in the menstruum hitherto employed (viz., diluted alcohol U. S. P.) is a prominent cause of the inefficiency and mucilaginous character of the extract when prepared by the officinal process. He adopts alcohol sp. gr. ·855 as a menstruum, and proposes this formula:

Take of Rhubarb in powder, any convenient quantity.
Alcohol sp. gr. ·855, a sufficient quantity.

Dampen the rhubarb with a small portion of the alcohol by rubbing it in with the hands; transfer to a suitable displacer, and having packed it moderately and otherwise arranged the apparatus, pour on the alcohol; and when a quantity of liquid equal in weight to the rhubarb shall have passed, set aside for spontaneous evaporation until reduced one-half. Continue the percolation with the alcohol until the liquid comes away nearly tasteless. Having filtered both liquids, if necessary, pour the portion last obtained into a porcelain dish arranged in hot water maintained at a temperature not exceeding 160° Fahr.: and when evaporated to nearly a syrupy consistence, add the other portion and continue the evaporation at the same temperature until reduced to the proper consistence.

The Professor states that this process yields, from good root, from 40 to 45 per cent. of extract. We saw a specimen presented by him to the American Pharmaceutical Association, at its late meeting, which was exceedingly rich in appearance, and possessed the coloring matter, taste, and odor of the root in a marked degree. F. S.

New Pharmaceutical Use of the Walnut Leaf.

The aromatic and astringent properties of the leaf of *Juglans regia*, or European Walnut, have led to its being proposed in form of infusion and tincture, for the purpose of taking Cod-Liver Oil. Mr.

Joseph Ince, in a paper upon the subject (*London Pharmaceutical Journal*, July, 1858), says:

Coffee, milk and-water, tincture of orange peel, and orange wine, have in turn been recommended: in some instances all fail alike, and the stomach obstinately rejects the oil. In this dilemma considerable relief will be found in the infusion of dried Walnut leaves, made thus:

Infusum Nucis Juglandis Regiæ.

℞. Fol. Nucis Jugland. Siccat, ℥ j.
Aquæ Bullientis, ℥ x.

Fiat Infusum. Macera per horam in vase operto, et cola. Dose—a wineglassful with Cod-Liver Oil.

Finding from experience that the infusion was successful, I ventured on two other preparations. The first, a concentrated infusion, made in the usual way by percolation, and the subsequent addition of spirit, the result being eight times the strength of the ordinary infusion; second, a tincture of the dried leaves, prepared as follows:

℞. Fol. Nucis Jugland. Siccat, ℥ xvj.
Spirit. Tenuioris cong, j.

Macera per dies septem; dein exprime et cola. Dose—one or two teaspoonfuls with Cod Liver-Oil.

Both these were advantageous in those cases in which the Tincture of Orange Peel might be exhibited, but did not prove a substitute when the tincture failed. The infusion of *fresh* Walnut leaves is too aromatic, and consequently does not answer.

The infusion of the *dried* leaves possesses the double advantage of being an effectual inexpensive remedy.

The leaves of *Juglans Cinerea*, officinal in the U. S. Phamacopœia, will doubtless answer the same purpose. Will some of our friends try the experiment, and report to us its value. F. S.

SELECTIONS &c. FROM CURRENT JOURNALS.

FORMULA FOR COMPOUND SULPHUR OINTMENT.

The following is the formula for the Compound Sulphur Ointment successfully employed by Messrs. Startin and McWhinnie, at the Hospital for Diseases of the Skin, against scabies, favus, and true ringworm, diseases which depend upon parasites which it is necessary to kill.

℞.—Of sublimed sulphur half a pound, of the ammonia chloride of mercury half an ounce, and of the sulphuret of mercury half an ounce; to these, well rubbed together, add four ounces of olive oil, sixteen ounces of fresh lard, and twenty minims of creasote. It will be seen that we have here in combination three different drugs, each possessing great efficiency in the destruction of insect and fungus life. The object in view, that of obtaining a vigorous compound, which, at the same time, shall not be irritating to the skin, is, we believe, exceedingly well attained.

[*Medical Times and Gazette.*

ACCIDENT FROM LIQUOR AMMONIÆ FORTIOR.

A correspondent in Baltimore, in whose store an accident occurred in opening a pound bottle of strong solution of Ammonia, by which two of

his assistants were seriously injured in the eyes and face, requests us to notice it with a caution. The cause of the accident is attributed to the fact, that manufacturing chemists usually make this preparation in the winter, and bottle it at as low a temperature as possible; and when, as in this instance (July 31), the bottle is opened in mid-summer without any precaution, the expanded air in the bottle is greatly increased in its tension by the liberated ammoniacal gas, drives out the stopper the moment it is loosened, and a large portion of the solution is lost by the rapid effervescence which instantly, and almost explosively, ensues from the escape of ammoniacal gas. Several accidents of this kind have occurred in Philadelphia, and, we doubt not, elsewhere. It has been our custom for many years past to keep this solution in summer in a refrigerated closet, to prevent loss by evaporation; and always to refrigerate a newly received bottle before attempting to open it, if in warm weather, and even then, to hold the stopper with some force whilst loosening it.

The same precautions are applicable to concentrated ether, nitro muriatic acid and similar preparations.

In accidents to the eyes from ammonia after the immediate use of cold water, rose water with sassafras mucilage, holding in solution a grain of acetate of lead to four fluid ounces, should be freely applied, and to the blistered skin, lime water and linseed oil, spread on linen cloth.

[*American Journal of Pharmacy.*

SYRUP OF PROTOCARBONATE OF IRON.

The facility with which Protocarbonate of Iron dissolves in organic acids, and its perfect harmlessness in irritable subjects, render it one of the most valuable agents in therapeutics; accordingly, all the new preparations into which sugar has been introduced, for the purpose of giving stability to this saline compound, have been adopted in practice.

M. Dannecy, a distinguished pharmacien in Bordeaux, having ascertained that the precipitate of protocarbonate of iron, obtained by mixing sweetened and boiled solutions of carbonate of soda and of protosulphate of iron, possesses the singular property of dissolving in simple syrup without becoming colored, conceived the idea of thus preparing a new ferruginous syrup.

This preparation being permanent, will be employed in cases in which the form of syrup is preferable to that of pills; for example, in the treatment of children.

The following is the process for making M. Dannecy's new preparation:

Take of purified protosulphate of iron, two ounces; distilled water, sixteen ounces; white sugar, two ounces; dissolve with ebullition, and filter. Secondly, take of crystallized carbonate of soda two and a half ounces; distilled water, sixteen ounces; white sugar, two ounces; dissolve with ebullition, and filter. When the two solutions have cooled, mix them in a glass vessel and shake for a moment; a precipitate is formed, which is at first white, but soon becomes of a greenish-gray color, preserving this shade. Allow this precipitate to collect during twenty-four hours; decant. Afterwards, take a solution of sugar in the following proportions: white sugar, two and a half ounces; distilled water, ten ounces; dissolve with ebullition, and filter. Add the precipitate to this saccharine fluid when cold; set it aside to rest; decant. Repeat this process once more, in order to remove the sulphate of soda resulting from the double decomposition. This washing ought to be accomplished as quickly as possible to prevent

the unnecessary solution of the ferruginous precipitate. Subsequently, agitate this precipitate from time to time in a fresh portion of saccharine solution (water, ten ounces; sugar, two and a half ounces). It will dissolve in the course of some days. Lastly, take of white sugar thirty-eight and a half ounces; distilled water, nineteen ounces; add the saccharine ferruginous solution, and boil to specific gravity 1·262, at the temperature of ebullition; flavor with tincture of lemon or orange. The product will be sixty-four ounces of almost colorless and perfectly clear syrup of protocarbonate of iron, containing 9·90 per cent. of oxide of iron.

[*Bulletin Général de Thérapeutique.*

GLYCEROLE OF ALUM AND WHITE PRECIPITATE IN ERYSIPELAS.

Dr. Anciaux, of Belgium, recommends the following preparations in erysipelas:

Take of Alum, in impalpable powder . . 20 grammes.
White precipitate . . . . . 1 "
Triturate intimately, and, having put the powder in a vial, add Glycerin 90 to 100 grammes.

Agitate the vial until the mixture takes the consistence of cream. The vial is to be shaken every time it is used.

[*Presse Méd. Belgique.*

CINCHONA BARK OF NEW GRANADA.

Hr. Karsten states that, by numerous comparative analyses of the yellow bark of *Cinchona lancifolia*, Mut., as well as grey Loxa bark, *C. corymbosa* made upon the spot, he has arrived at the conclusion that the amount of organic bases in the bark is subject to great variations, according to the place where the trees grow, and that this is probably more the result of differences of climate than of soil. The bark of *C. lancifolia*, which, on the average, yields 4·5 per cent. sulphate of quinine, and from 1 to 1·5 per cent. sulphate of cinchonine, often yields neither alkaloid, and sometimes yields 4·5 per cent. The bark of young branches of *C. lancifolia* was found not to yield any alkaloid, although the bark of the stem yielded 1·25 per cent. sulphate of quinine and 0·25 per cent. sulphate of cinchonine.

Hr. Karsten considers that the quinine produced in plants is again absorbed in the process of vegetation when the supply of nutriment to the plant is cut off or diminished. Thus the bark of a tree which yielded 3·5 per cent. sulphate of quinine when fresh felled, yielded only 3 per cent. after it had been kept six months, during which time the bark of the tree remained upon it perfectly fresh.

The conditions that are consided by Hr. Karsten as most favorable to the production of a large amount of organic bases in cinchona bark, are constant uniformity of climate, with alternating cloudy, sunny, and rainy weather, while those species that grow in variable climates, with intermittent periods of vegetation, furnish bark that contain a smaller amount of alkaloids.

[*Bericht der Akad. der Wissench zu Berlin*, 1858, *p.* 260.

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Original Communications.

ART. XLV.—Remarks upon the Employment of Strychnine as an Adulteration for Alcoholic Liquors.

BY HENRI ERNI, M. D.

The public was recently quite horrified by some apparently well authenticated reports, that unprincipled liquor sellers were drugging their merchandise, such as whisky, brandy, ale, etc., with Strychnine, known to be one of the most deadly poisons. Surprising to say, these statements, if we can believe newspaper accounts, originated first with public functionaries and so-called practical chemists; their opinion being based, it was said, upon a chemical examination of various kinds of liquors. Now, we have no hesitation in saying that these reports are wholly unfounded, and were either started, to increase the cause of temperance through fear, or, perhaps more likely, for vain show, to heighten the reputation of such able chemists, or to make a profitable business out of ignorant gossip.

It requires no chemical analysis at all to make obvious the falsity of the above mentioned imputation, for the well known qualities of Strychnine are such as to render its abuse for adulterating alcoholic liquors inadmissible.

1. Strychnine has a most intensely bitter taste, and although it is almost insoluble in water (requiring 7000 parts of cold or 2500 parts of boiling water), the cold solution, when diluted with 100 parts more of water, tastes yet strongly bitter; now, as Strychnine is readily soluble in dilute alcohol, then brandy, whisky, and all other alcoholic drinks, when mixed with mere traces of this alkaloid, would in a much greater degree partake of its bitter and poisonous qualities.

2. Strychnine is an exceedingly costly article, and there is not enough brought into commerce to make any such application plausible.

3. It constitutes one of the most dangerous poisons, and its presence is, unlike many other organic poisons, readily established by chemical tests; hence, any liquor establishment guilty of making such criminal use of it (and whereby nothing could be gained), would ruin at once its reputation, and fall inevitably into the hands of justice.

Now, as malt liquors have ordinarily a bitter taste, owing to the addition of hops, it might at first sight appear more probable that those could be drugged to good advantage with Strychnine, but chemistry shows that this poison can not be introduced into beer together with hops, for the tannic acid, which these always contain, precipitates Strychnine completely, in the form of an insoluble compound. Should it be contended that Strychnine might be substituted for hops (almost always a cheap and abundant vegetable), we answer that aloes and many other bitter principles would more likely find such application, being comparatively harmless, and sold at low prices, whilst

making use of Strychnine as a substitute for hops would be very much like adulterating iron and other base metals with gold.

Taking, then, altogether what we previously stated as to the peculiar qualities of Strychnine, we hope to have convinced even the most credulous of the entire fallacy of any such liquor-poisoning, and with no other apparent end in view than to risk pocket and neck.

The hoax of beer being poisoned with Strychnine was first started in England, where the brewers themselves, most eager to vindicate their credit, engaged the greatest chemical talents of England—Messrs. GRAHAM and HOFFMANN—who analysed a great variety of ale and beer, without finding however, as could be well anticipated, any trace of this poison, whilst they easily verified its presence when half a gallon of ale was previously mixed with half a grain of Strychnine.

We now proceed to describe the reactions and methods by which Strychnine—either by itself, or when present in various mixtures of vegetable and animal food—may be recognized:

Strychnine is sold either in the crystalline form (*i. e.* in small, white, four-sided prisms, or octahedrons), or as a white granular powder. It is somewhat soluble in ether but more so in common alcohol, particularly when boiling hot. With acids it forms a series of salts, which are also soluble in alcohol; those with sulphuric, nitric and chlorohydric acids are even soluble in water. These salts, owing to their greater solubility, are still more energetic poisons than Strychnine itself.

Strychnine and its salts are used in doses of one-twelfth of a grain as remedies in paralysis, producing a rather specific action on the lower part of the spinal column. In the event of an overdose, the best antidote is tannin (infusions of gall-nuts or strong tea, containing both much

tannin, will answer as well as pure tannin). From a solution 20,000th part of Strychnine, liquor of tannin will throw down a white precipitate.

One-half grain of Strychnine, brought into the stomach of rabbits, dogs, and cats, or when sprinkled even into slight cuts, kills within three to five minutes, first inducing violent spasmodic movements, and then general tetanus and death.

Dissections of men and animals, who died from the effects of this poison, show, according to ORFILA (*Traite de Toxicologie*), the same changes in their organs as are exhibited in asphyxia, none however being observed in the intestinal canal.

Strychnine, when pure, is colored yellow by moderately strong nitric acid, whilst a trace of brucine, which it frequently contains, imparts a red tint. Brucine by itself produces a deep red color, which, by the addition of protochloride of tin, turns to an intense violet.

Concentrated sulphuric acid which is always made use of in detecting Strychnine, dissolves the pure alkaloid without change of color, but if adulterated with some brucine the color produced is of a peach-blossom red.

Much depends upon the skill and experience of the experimenter to ensure success in tracing small quantities of Strychnine, particularly in complicated cases. The methods following ought first to be practiced on unmixed Strychnine, as the distinctness and beauty of the reactions go hand in hand with the knowledge of how much to add of each reagent; the smallest fraction of a grain of Strychnine is sufficient for one experiment, which is best conducted either in a small glass-tube, a watch-glass, or a very small porcelain dish:

A little Strychnine is dissolved by the addition of a few drops of concentrated sulphuric acid, and subsequently mixed with a drop of a strong aqueous solution of bi-

chromate of potassa, when a most beautiful purple color appears, which, before vanishing, passes through the various stages of red and yellow. (According to EBOLI, the solution assumes, after standing two days, a blue color, a change never observed by the writer.) As always a certain corresponding amount of chromate of potassa is required to react upon Strychnine, it is perhaps at all times advisable to employ, instead of a solution or the powdered salt, a small crystal of the chromate, from which, when brought into the acid solution of Strychnine, purple streaks immediately proceed, particularly if the vessel in which the experiment is made is somewhat inclined, whilst the whole solution assumes speedily the same color when the crystal is moved about with a glass rod.

We will remark here that, whilst it was formerly deemed of little consequence for the success of this test whether the suspected substance was first mixed with chromate, and, after this, with some sulphuric acid, or the reverse order followed, A. VOGEL, jr., found that in mixtures of Strychnine with certain other substances — for instance, powdered starch, sugar, &c. — the mentioned reaction will only take place when the powder is first treated with sulphuric acid, and subsequently acted upon by the chromium salt. Instead of chromate of potassa, we may, when testing for Strychnine, employ a small piece of ferri-cyanide of potassium (red prussiate of potash), which exhibits the same characteristic change of color, and is fully as sensitive a reagent. Binoxide of lead and manganese are much less reliable substitutes.

The property of animal charcoal to remove alkaloids from solutions has been made use of by GRAHAM and HOFFMAN to separate Strychnine from beer and other liquids. When beer containing Strychnine is brought in contact for some twelve hours with animal charcoal, stirring the mix-

ture frequently, we find the liquid, after filtering it off, to have lost entirely its bitter taste, the charcoal having taken up all the Strychnine. The charcoal upon the filter is washed once or twice with water, and the Strychnine withdrawn from it by boiling for half an hour with alcohol, the vapors of which are by some arrangement again condensed. The alcoholic extract is now distilled, the watery residue rendered alkaline with caustic soda, shaken with ether, and the ethereal solution evaporated. In the remaining mass, we can readily detect the Strychnine by sulphuric acid, bi-chromate, or red prussiate of potassa.

The best method for tracing Strychnine and other alkaloids in articles of food, contents of stomach, etc., is that devised by STAS, founded upon their properties to form acid salts which are soluble in water and alcohol, but insoluble in ether, from which solutions the organic bases can be isolated by means of potassa or soda, when they are taken up by ether. In examining, for instance, various mixtures for Strychnine we proceed thus:

The mass is treated in a flask with double its weight of strong alcohol; from one-half to two grammes of oxalic or tartaric acid are added, and the whole heated to a temperature not exceeding 70° to 75° Cent. (If we have to examine certain organs, such as liver, lungs, etc., they are first cut into small pieces, and repeatedly extracted by alcohol and acid, and squeezed out.) After cooling, the alcoholic extract is filtered, the residue on the filter washed with strong alcohol, and the liquid evaporated over sulphuric acid, or in a dry current of air. The remaining now aqueous solution is filtered off from separated fatty and resinous matter (the filter is previously well moistened with water), and under the just mentioned circumstances evaporated nearly to dryness. The rest remaining behind is again extracted with cold absolute alcohol, the liquid evaporated, and the (acid) residue dis-

solved in very little water,* and bi-carbonate of soda or potassa added until effervescence ceases. The mass is then shaken with four to six times its volume of pure rectified ether, and a portion of the upper (ether) strata, after it has become sufficiently clear, brought into a watch-glass for spontaneous evaporation; what is left is tested for Strychnine with sulphuric acid, bi-chromate of potassa, or ferri-cyanide of potassium.

KNOXVILLE, Tenn.

ART. XLVI. — Hystero-Phlebitis — Pyæmia — Elimination of Pus — Abscess — Recovery.

Reported by E. P. CHRISTIAN, M. D.

THE history of the following case exhibits the extraordinary powers of nature in effecting a recovery from a very grave and, not seldom, fatal disease, by means of the elimination of the morbid matter from the blood, and its ejection from the system by safe channels and comparatively speedy processes. We say by safe channels, in view of the careful avoidance of depositions in vital organs, and the election of external and muscular parts for the seat of these abscesses; and speedily, in view of its more tedious, if not impossible elimination by the excretions, or by abscesses opening internally. And were we to consider the case as one of scrofulous purulent deposits, it would be still no less remarkable for exhibiting the power of nature in effecting a restoration after so exhausting a drain upon the system.

* According to JULIUS OTTO, the Strychnine is recovered in a purer state (and hence the distinctness of the subsequent reactions increased), if the above (acid) residue, dissolved in little water, is, before treating it with carbonate of potassa, washed with some ether as long as coloring matter is extracted, the ether strata removed, and the Strychnine set free from the aqueous solution by alkali, dissolved in ether, the solution evaporated in a watch-glass, and the residue tested for Strychnine as in the other case.

Mrs. V., mother of three children, was taken in labor June 29th, and was delivered of a medium-size girl, by a breach presentation. The labor was not tedious, she being delivered by the unaided efforts of nature, except by promoting dilatation of the os by means of the hand in a gentle manner, within two hours after my arrival, and within three hours of commencing dilatation of the os. She had passed without accidents through her previous labors, though her getting up had been tedious from slowness in gaining strength.

For several days after her labor, every thing appeared well, there being no greater disturbance of the system than is ordinarily present at this time.

After the appearance of the milk, however, about the third day, the feverish state of the pulse did not subside, her tongue continued coated, with thick urine, &c. Still the lochia continued normal, and the patient was up by the tenth day. Still the feverish state continued, coated tongue, thick urine, dry skin, some headache, etc., without excitement of the pulse at this time.

On the eighteenth day, the patient walked through the kitchen and back. The same day she was seized with a chill, followed by fever. I saw her the next day. Found her with considerable increase of fever, and tenderness over the uterus. At this time intermittents were very prevalent; there were several cases in the same house, and a strong malarious influence about the neighborhood. Several parturient women had been attacked with ague almost immediately after parturition, and successfully treated by quinine, etc. Probably the malarious influence had been masked by the parturient state. Others had their confinement induced before their time, either by the attack of paroxysms of ague, or, as I sometimes imagined, by the ecbolic influence of the quinine administered. These circumstances led me to suspect a malarious cause of the disturbance,

and the uterine congestion as the result of the congestive, or cold stage.

She was treated by counter-irritation, quinine, and mercurial alteratives, with speedy relief of the uterine tenderness and improvement in the excretions.

Still the general feverish condition continued. Within a short time (I can not now specify the date, but within a week), a soreness began to be felt about the left hip. This gradually increased in intensity from day to day, as did also a perceptible prominence of the muscles at this point, until the whole thigh became greatly swollen. At length, after some two weeks of suspense, and of general treatment, and of local applications of various kinds, the condition was rendered clear, although such was the opinion to which I had before arrived, of a deep sub-fascial abscess, by the sudden appearance, on the inside of the right arm, about its middle, of a tumor giving a sensation to the finger of fluctuation. This made its appearance, of the size of a hen's egg, in one night; unaccountable on any other supposition than of its being deposited there from the circulation. This tumor was lanced, and from it was discharged, within forty-eight hours, at least a half pint of laudable pus.

Within a few days, another, still larger, was ready for opening in the axilla of the same side, and from this at least an equal quantity of like-appearing pus was discharged. At the same time, another made its appearance suddenly on the right side of the neck, and almost as suddenly disappeared again.

It was now hoped that the quantity of matter released from the system, which was not inconsiderable, might afford relief, and that improvement might be anticipated in the general symptoms which were now decidedly bad, with hectic fever, profuse night-sweats, etc. Nevertheless, appearances did not improve. Her state progressively grew

worse. Finally, further delay was regarded as dangerous, and though fluctuation was indistinct, a deep incision was made at the most prominent point, just below the trochanter major. This was followed by a gush of matter, and the opening continued to discharge incessantly until two quarts of matter were collected from it. Great relief to her suffering was at once experienced. In three days' time a sensation of heat was again felt in the limb. This was followed by re-opening the incision, and the discharge of about one quart of pus; and again, in another three days, the same sensation followed by the discharge of the same quantity of pus. After this, there was no more trouble from this leg except from a numbness, which continues to this time.

Just at this time, also, again appeared the tumor in the neck. This was opened, and gave egress to several ounces of pus. Again, in two or three days, another one had appeared on the arm at the point first opened. From this, there was discharged from one to two ounces, mixed with clotted blood.

Now the long-suffering patient commenced to improve somewhat. Her appetite returned, but her strength did not, and still the pulse retained its frequency. This was soon explained by the old sensations, first manifested in the left hip, making themselves felt in the right. This progressed much the same as in the other leg, but was not waited for so long. An early incision was made, deeply down, which gave exit to about one quart of mixed blood and pus. From this time, the patient improved rapidly. Her fever subsided immediately, and strength was fast regained, and in a fortnight she was able to travel.

Such is the history of the case, exemplifying unequivocally, to my mind, and also to Dr. NASH, who saw the case frequently with me, one of purulent absorption from uterine phlebitis. To this conclusion, the results of treat-

ment also clearly point. Over the formation of pus, in this case, iodide of potash, cod-liver oil, quinine, iron, etc., exerted no preventive influence. These were all, and especially the former, perseveringly tried in large doses. The tendency to its deposit was too strong to be influenced by any remedies that could be administered.

Such is a hastily written sketch of an unusual case.

WYANDOTTE, Mich., Oct. 11th, 1858.

ART. XLVII. — Case of Spina-Bifida, with Congenital Extrusion of the Uterus.

BY E. LEACH, M. D.

THIS novel and interesting case came under my observation November 4th, 1856 — novel, from the uterine displacement, and interesting in the relation, which I believe, it sustains to the spinal lesion.

The mother was about thirty years of age, sanguine temperament, stout built; originally of good constitution, but her health had suffered severely from repeated miscarriages, and prolapsus uteri — one of its too frequent consequences.

The spinal tumor, consequent upon the pressure of fluid against the unsupported meningeal membranes and skin, occupied the region of the lower three lumbar, and upper two or three sacral vertebræ, according to the best of my recollection, having taken no notes of the case at the time. Its walls were transparent, the cord being distinctly visible through them, not deviating, however, from its normal course.

The child lived about three weeks. I did not see it for a week or two before it died, but should judge, from what I was able to learn of its symptoms, that cerebro-

spinal meningitis supervened, as the immediate cause of its death.

The lower limbs were paralyzed, and wanted the corresponding plumpness of the trunk and upper extremities. The functions of the bladder and bowels were normal.

From my attention being wholly absorbed at the time of the birth, with its "want of backbone," I did not notice the uterine displacement until the next day; when the father of the child called to consult me about what he termed "a swelling of its privates." On my visit to the unfortunate little patient, I learned from the woman who washed and dressed it, that while performing that task, she discovered a swelling or tumor just between the labia, which, at the time of my visit, was completely extruded. On examination, I found it to be a well developed uterus, perhaps, somewhat swollen from its abnormal position, and the consequent irritation to which it was subjected. There was a slight discharge of mucus from the vagina, also from the os-uteri.

The organ was readily reducible, but as readily prolapsed, when the force required to reduce it was removed, and the child made any effort by which force was brought to bear upon the abdominal viscera.

It was supported, or retained within the vagina rather, by means of a compress and T bandage.

Now, was the spinal lesion and the uterine displacement merely a coincidence? or do they sustain the relation of cause and effect? I confess I am decidedly inclined to the latter opinion. DRUITT says: "Sometimes it" (Spina-Bifida) "is combined with palsy of the legs." We think that was evidently the case in this instance; and the question is—Were not both the palsy and uterine displacement due to the same cause?

Owosso, Michigan.

ART. XLVIII.—Meteorological Register for Month of October, 1858.

BY L. S. HORTON, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer.			Hygrometer			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	28·98	28·95	28·98	62	74	65	60	66	60	·491	·532	·451	·88	·63	·73	S.W. 2	S. 2	S.W. 1			
2	29·00	29. 02	28·84	64	70	58	57	64	55	·373	·516	·393	·62	·70	·81	S.W. 1	S. 1	S.W. 1			
3	28·77	28·78	28·78	74	85	65	68	80	64	·604	·955	·631	·72	·79	·80	S.W. 2	S.W. 2	S. 1	7. p.m.	5. p.m.	·30
4	28·78	28·80	28·90	60	76	50	56	65	45	·396	·470	·234	·76	·52	·64	S. 1	S.W. 1	W. 1			
5	29·05	29·08	29·05	45	65	48	42	58	43	·228	·389	·212	·76	·63	·63	W. 1	E. 1	S. 1			
6	29·06	28·90	28·62	48	70	50	42	59	45	·189	·354	·234	·56	·48	·64	W. 1	N.E. 1	N.E. 2	8.30 p.m.		
7	28·56	28·56	28·60	53	64	42	47	60	36	·244	·465	·134	·60	·78	·50	W. 5	W. 5	W. 3	9. a.m.	1. 25 a.m.	1·27
8	28·68	28·69	28·80	33	48	36	32	45	32	·168	·260	·123	·89	·77	·56	S. 3	S.W. 4	W. 3		12.30 p.m.	·02
9	28·90	28·94	28·98	48	60	48	42	46	40	·189	·127	·143	·56	·24	·42	W. 2	S.W. 2	W. 2			
10	29·00	29. 07	29·12	57	62	45	44	56	38	·118	·369	·138	·25	·66	·45	S. 2	S.E. 2	S.E. 1			
11	29·20	29·12	29·04	56	68	48	50	55	45	·282	·261	·260	·62	·38	·77	N.W. 1	N.E. 1	E. 2	9. a.m.		
12	29·00	28·80	28·80	58	66	56	52	62	53	·309	·502	·409	·64	·78	·81	W. 1	N.E. 1	W. 1			
13	28·78	28·75	28·75	54	62	48	50	56	43	·308	·369	·212	·73	·66	·63	S.W. 2	S.W. 2	S. 3	2.35 p.m.	2. a.m.	·20
14	28·80	28·88	28·90	43	58	42	38	48	40	·164	·203	·221	·58	·42	·82	S. 2	S.W. 2	S. 2		7. p.m.	·32
15	29·00	29·00	28·80	42	60	45	35	50	40	·113	·229	·182	·42	·44	·60	S.E. 1	S.W. 1	S. 1			
16	29·05	29·08	29·10	52	74	54	44	58	48	·183	·270	·256	·47	·32	·61	S.E. 1	S.W. 1	S.W. 1	1.30 a.m.	7. a.m.	·02
17	29·22	29·22	29·20	63	74	58	56	58	49	·356	·270	·229	·61	·32	·47	S.E. 1	S.W. 1	S.W. 1			
18	29·20	29·22	29·20	58	72	64	48	64	52	·203	·489	·229	·42	·62	·38	S.W. 2	S.W. 2	S.E. 2			
19	29·10	29·18	29·15	56	68	58	46	58	52	·179	·350	·309	·39	·51	·64	W. 1	S.E. 1	S. 1	4.30 p.m.		
20	29·00	29·10	29·05	50	68	50	48	50	44	·309	·123	·209	·84	·18	·58	W. 1	S. 1	S.E. 1		11.30 p.m.	1·03
21	29·00	29·00	29·00	45	56	45	40	50	40	·182	·282	·182	·60	·62	·60	S. 1	S.E. 2	S. 1			
22	29·00	29·00	29. 00	35	66	52	32	56	46	·142	·316	·232	·69	·49	·59	S.W. 1	S. 1	W. 1			
23	29·00	29·00	29·02	42	68	52	38	52	48	·177	·177	·282	·66	·25	·72	W. 1	W. 1	S.E. 1			
24	29·10	29·10	29·10	45	60	46	42	52	40	·228	·282	·169	·76	·54	·54	S.W. 2	S.E. 2	S.E. 2			
25	29·10	29·08	29·10	46	60	51	40	51	44	·169	·255	·196	·54	·49	·52	E. 2	S.E. 2	E. 2			
26	29·15	29·17	29·15	44	60	51	38	54	46	·151	·338	·245	·52	·65	·65	E. 3	E. 2	E. 2			
27	29·12	29·10	29·10	47	60	46	40	48	41	·156	·177	·192	·48	·34	·61	E. 2	E. 2	E. 2			
28	29·10	29·05	29·00	48	62	52	40	51	48	·143	·229	·282	·42	·41	·72	E. 2	E. 2	E. 2	3. p.m.	11.30 p.m.	·52
29	28·89	28·88	28·88	55	65	58	50	60	54	·291	·451	·365	·68	·73	·75	S.E. 2	E. 2	S.E. 2	2. p.m.	8. p.m.	·06
30	28·88	28·90	28·90	55	66	56	52	54	44	·349	·259	·131	·80	·40	·29	S. 1	S.E. 2	S. 1			
31	28·98	29·00	29·00	56	55	56	52	52	52	·335	·349	·335	·74	·80	·74	S.E. 1	S. 2	S.W. 1	7. p.m.	11. p.m.	·04

Bibliographical Record.

A MANUAL OF PSYCHOLOGICAL MEDICINE; containing the History, Nosology, Description, Statistics, Diagnosis, Pathology, and Treatment of Insanity. With an Appendix of Cases. By J. C. Bucknill, M. D., London, etc., and D. H. Tuke, M. D., etc. Philadelphia: Blanchard & Lea. 1858. (*Concluded.*)

In the October No. of this Journal was contained a notice of the above work, giving a brief sketch of the first half of the volume,—that contributed by Dr. Tuke; embracing the History, Nosology, Description, and Statistics of Insanity. We propose in the present article to give a like brief, and, as it will prove doubtless, an imperfect account of the remainder of the work, contributed by Dr. Bucknill, comprising a dissertation upon the Diagnosis, Pathology, and Treatment of Mental Diseases.

In entering upon an examination of this part of the work, it is at once perceived that its author is a man of precise and extended views—is, in a high sense, a master of his subject, and of the best methods of treating it. He commences by a statement of the fact, that no class of diseases are so various in their manifestations as those known under the general head of Insanity; none present such an infinite variety of light and shade—such great varieties in their own nature—and none are so indefinitely modified by intermixtures with other diseases, by influence of temperament, of individual peculiarities and habits,

and of social positions and relations. The difficulties of diagnosis arising from these innumerable shades of the disease, and also from the less sensible and tangible characters of the symptoms (the evidences of its existence being chiefly cognizable by the intellect alone of the diagnostician, and based upon data, themselves composed more largely of inference than of simple sensible phenomena), are pointed out; and the importance of a knowledge, not only of what belongs to the physical, but to the mental constitution as well, is set forth.

Provisionally, and in the place of a more scientific classification, Dr. B. divides Insanity into the usual groups of mania, monomania, melancholia, dementia, and idiocy — these distinctions being based not upon the causes and nature of the disease (which should be the foundation of a true classification), but upon its more prominent phenomena. The importance of a correct diagnosis of Insanity, presenting itself as it does, not only in a purely medical, but also in a medico-legal point of view, is strongly represented; and the author proceeds to point out in detail the difficulties of the inquiry, the diagnostic value of hereditary tendency, of previous attacks, of change of habits and disposition, and the importance of great caution and tact in the manner of examination; and then goes on to show the peculiarities of residence and dress, of bodily condition, and of gestures and physiognomy, as varied by intellect, emotions, and propensities, presented in the disease. The importance of a quiet, self-possessed, and natural manner is spoken of as necessary to throw the patient off his guard, prticularly in those cases which are doubtful, and where ingenious efforts are made (as is not unfrequently the case), to conceal the malady of which the patient is, in a certain sense, conscious.

The particular symptoms denoting dementia, primary and secondary, are next dwelt upon. The effects of mo-

dern modes of treatment upon some forms of the disease, as compared with the ancient, is presented in the following passage, which, as illustrative of the influence of kindness and the exercise of humanity, is of peculiar interest:

"The entirely different treatment which now prevails has not changed the pathological fact, that in secondary dementia, the emotions survive the intellectual powers. It has, however, altered the character of these emotions; and in a great number of instances, it has succeeded in substituting amiable and agreeable ones, for those which are painful and malevolent; and in other instances of success less complete, it has, nevertheless, mitigated the intensity of feelings of the latter character."

It is also stated that there is an

"Entirely different facial expressions of lunaties, as they were painted and described by our forefathers, and as they are observed by ourselves. The old treatment converted the insane patient into a ferocious, malevolent, and repulsive being, who, in his turn, excited the horror and disgust of those who trembled to feel themselves his fellow-men."

The next subject discussed is the Diagnosis of *Mania*, the latter being a term applied to that large class of disorders of the mind, in which its functions are in a state of excitement, and their mutual dependence and proportion disturbed; and the signs by which the acute, the chronic, and the incomplete forms of the disease are designated, are pointed out. The diagnosis of eccentricity, melancholia, monomania, the moral insanity of PRICHARD, general paralysis, and the detection of feigned and concealed insanity are next in order, and are all discussed, as it seems to us, in a highly appreciative and judicious manner,—specimens of which it might be interesting to give, but space will not allow.

This brings us to the part of the work treating on the Pathology of Insanity, which, from its profound scientific interest, and the very able manner in which it is discussed, seems entitled to somewhat special consideration.

The difficulties connected with the Pathology of Insanity are universally conceded to be very great, and are shown by Dr. Bucknill to be attributable to our ignorance of the physiology of the brain—its *modus operandi* as the organ of the mind. The functions of most other organs are, not only understood, but, to a large extent, the mode of performing their functions have been traced out; but it is quite otherwise with the organ which controls all the rest of the body, as well as serves as the seat of the mind. An agglomeration of delicate cells in intimate connection with minute tubes or filaments, which communicate impressions made upon the cells at one end to those cells which lie at their other extremities, so far as we know, constitute the nervous apparatus. The knowledge that the different sets of cells and nerve-tubes originate and convey different forces and impressions, is, doubtless, a fact of much importance, but is far from an intimate knowledge of the laws of nerve-force, as respects its influence on matter; and much less as to its connection with mind. These subjects are not now, and perhaps will never be, understood; but, although we can not perceive the connection between nerve-function and nerve-organization, still we do understand many of the conditions which this connection requires, and without which it is discontinued. It is known, for instance, that if the great nerve-mass, the brain, "is not supplied with a due amount of plasma from the blood; or if plasma is supplied to it containing noxious substances, such as urea, or narcotics; or if it be subjected to pressure, or be over-stimulated and deprived of due repose, its functions are interrupted or perverted"; and with these and like facts—with a knowledge that the nerve tissue is subjected to the general laws of decay and reparation of other tissues; that upon the integrity of the nerve tissue depends its functions, and that among the nerve-functions

are manifestations of mind, we are obliged to be content. Our author says:

"The physiological principle upon which we have to build a system of cerebral pathology is, that mental health is dependent upon the due nutrition, stimulation, and repose of the brain; that is, upon the conditions of the exhaustion and reparation of its nerve-substance being maintained in a healthy and regular state; and that mental disease results from the interruption or disturbance of these conditions."

He further says:

"The little cells are the *agents* of all that is called mind, — of all our sensations, thoughts, and desires; and the growth and renovation of these cells are the most ultimate conditions of mind with which we are acquainted. There may be more profound conditions, but they are beyond our ken, and so far as we know, there is no better sanction for their existence than the fantastic alliance of spurious physiology and Kantian metaphysics."

He confesses that it is totally inconceivable how any combination of cells can result in mental phenomena; but also says that it is inconceivable how any combination of matter can result in any other manifestation of life, or how any combination of dead matter even, can result in the movements of the solar system; and adds:

"All we can say is, that the cerebral cell and gravitating atom are creatures of the Almighty Creator, acting in obedience to laws impressed upon them by His fiat, laws whose phenomena we can trace, but whose ultimate nature we can not understand."

It is further, in substance, stated, that the active, gray substance of the brain contains millions of vesicles, lying in a semi-fluid granulated substance (stroma), and bound together by a minute network of capillary blood-vessels, and fine areolar tissue; that the activity of the cell is the fundamental truth of physiology; that this activity is accompanied by its decay, and demanding its renovation; and that, consequently, the markworthy points in the relative position of the brain-cell are,—

"First, its proximity of the nerve-tube, from and to which it conveys impressions, — the taking and giving of which is the cause of its exhaustion; and, secondly, its proximity to the blood capillary, which exudes a plasma in which the cell is bathed and renovated, and from which new cells are formed to replace those (if such there be) which are finally exhausted."

With regard to the relation of the cell to the nerve-tube, it would seem that injurious results to the individual cell could only follow from stimulation and action so excessive as to hasten decay beyond the power of reparation; but with regard to the relation of the cell to the blood-vessels, a crowd of circumstances may occur, to interrupt or prevent its growth or reparation. It is assumed that all states of the cerebral cell, physiological or pathological, are derived from influences exerted upon it, either by the nerve-tube or the blood-vessels with which it is so intimately connected.

All ideas respecting Insanity depending upon diseases of the "spiritual essence," or other conditions referable to the mysteries of Ontology, our author rejects; and also repudiates all such vague and, at the same time, exclusive notions, as that it always depends upon "irritation" or "exhaustion" or "inflammation," contending that they are as absurd as to suppose that all diseases of the stomach or lungs depended upon any one special pathological state.

The production of Insanity is embraced, according to Dr. Bucknill, in the following broad view, viz.:

"The brain, like every other organ of the body, for the perfect performance of its functions, requires the perfect condition of its organization, and its freedom from all pathological states whatever. Consequently, the existence of any pathological state in the organ of the mind will interrupt the functions of that organ, and produce a greater or less amount of disease of mind — that is, of insanity."

This, it is true, is taking a physical and material view of the subject; but, in a pathological sense, can any other view be taken? Without raising the question as to the

essence of the mind, or suggesting any doubts respecting the sublime truths of the immateriality and immortality of the human soul, we may properly ask, Has that soul any means of manifestation in the present state of being, excepting through material organization? When organization is destroyed, does not mental manifestation cease? When it is impaired, is not that manifestation deranged? Do not all who believe in the immortality of the soul, also believe that at death, when the soul is released from the diseased body, all insanity will cease? Is it supposed by any that the immaterial soul itself is subject to disease — disease in the sense in which it is the subject of scientific investigation and medical treatment? And if these questions are answered as it would seem they must be, what reason have we to suppose that insanity can exist independent of disease of the material organ of the mind?

It is unquestionably true that insanity may be produced by moral causes — by causes acting primarily upon the sensibilities — upon the mind itself. But is it not rational to believe — indeed, more than probable — that these impressions upon the mind causing insanity, produce changes in its material organ, the brain? Is it not well known that mental impressions change the actions and conditions of other organs than the brain? The heart and arteries, the stomach and intestines, the lungs, the glands, and other viscera, with all their functions of circulation, digestion, respiration, secretion, etc., are more or less perceptibly influenced by impressions on the mind; changes are thus effected, not merely upon function, but organization as well.

From all the ascertained facts and analogies of the case, we must confess our inability to set aside the propositions of the author, and if Insanity in any case does not depend upon changes either of structure or function of the material organ of the mind, — the brain — the other conditions upon which it does depend are entirely beyond our knowledge — beyond even the present range of scientific inquiry.

From these broad fundamental positions, our author goes on to specifications, and the elucidation of details, in which we shall be unable to follow him minutely, but we may state, that, by a process of exhaustive reasoning, he concludes that "diseased conditions which affect the mental functions must have their seat in the gray matter of the cerebral convolutions"; and in speaking of disease of the brain in relation to Insanity, he wishes to be understood as speaking of these convolutions alone, when the contrary is not expressed. And it seems he wishes further to be understood that he means to imply *organic* disease of this gray matter; for he expresses the opinion that all disease is organic, or at least accompanied by organic changes. He says:

> "Not a thrill of sensation can occur, not a flashing thought or a passing feeling can take place, without changes in the living organism; much less can diseased sensation, thought, or feeling occur, without such changes; changes which we are not able to detect, and which we may never be able to demonstrate, but which we are, nevertheless, certain of."

And further, that, whether heat, electricity, vitality, etc., are distinct entities—imponderable matter—or phenomena belonging to ordinary ponderable matter, an atom or a cell charged with electricity or heat, or in a state of chemical or vital activity, is essentially in a different condition from one not thus charged or active. He concludes therefore that there can be no alterations of dynamic force without corresponding changes in material or structural condition.

It will be observed that the assertion is not made that structural change must precede functional; neither is it stated, as by Prof. Tully of this country, in his late work on Pharmacology and Therapeutics, that "Except from mechanical lesions, there is no such thing as primary structural disease. Without mechanical lesion, a change of structure can not possibly be produced except by a change

of function": but the principle is announced, which it is certainly difficult to controvert, that change of function and change of structure or organization go together. Which is primary, or whether either necessarily precedes the other in time, is not stated. It is possible that in some cases the one, while in other cases the other, may take the precedence.

The particular conditions of the brain constituting these structural changes and abnormal manifestations of mental phenomena are various. As the brain is largely supplied with blood-vessels, and as healthy nutrition is essential to the proper performance of its function, any irregularities in the quantity or quality of the blood, or its relations to the tissues, produce changes in its functions. Anæmia, or hyperæmia, with organizable or unorganizable exudates—chemical changes in the blood—defect of oxygen, or excess of carbon, and many other blood poisons may affect mentality. The brain is also liable to be morbidly impressed by injuries or noxious influences applied to peripheral portions of the nervous system, through sympathy. It is peculiarly liable to exhaustion. Other organs, if overtasked, find various means of rest or recuperation. A portion of their burden is often borne by other organs; but the brain overwrought "finds no help-mate in the economy of the organism." It has a rest peculiar to itself in sleep; but when exhausted beyond certain limits, excitement is produced which prevents this rest, and then the wear is rapid, death sometimes occurring, but more frequently permanent atrophy, with perversion and degradation of its functions.

Atrophy of the brain, it is alleged, is the most frequent condition of Chronic Insanity, as is abundantly shown by post-mortem appearances. This may or may not be preceded by hyperæmia, or inflammatory processes, though it is very seldom, if ever, by that complete development of inflammation resulting in the fibrinous and purulent ex-

udations which are found in cerebritis. That disturbance, however, of the cerebral circulation resulting in a transparent exudation of serum, thus interrupting the normal endosmotic motions, is frequent. Exudations in one part, or varicose enlargement of the veins with partial stasis, causes pressure upon other parts near, interrupting normal nutrition, and producing irregular functional action; while, again, the weaker, or stronger and more excitable, portions of the brain will suffer most from various general causes of disturbance, thus producing unharmonious phenomena. Decided weakness of any portion of the intellectual organism, or great strength of the emotional, predispose to Insanity.

The question has been raised, Whether the cells, or blood-vessels of the brain are first involved in morbid changes in Insanity? It may, doubtless, be answered that sometimes the one and sometimes the other suffers first. In the cases depending upon moral causes, it is presumed the cells take the lead; while in most of those depending upon physical causes, such as injuries of the head, fever, suppressed discharges, alcohol, etc., the changes in the capillary vessels first occur.

As already intimated, in most cases where Insanity has existed for any considerable length of time, the brain is found in a state of atrophy or decay, post-mortem; but these conditions are usually secondary, showing evidence of previous derangement of nutrition, often arising from hyperæmia, from congestion, and sometimes exudations. Still, from poverty of the blood, fatty or earthy degeneration of capillary vessels, molecular changes effected by blows, and, most frequent of all, from loss of the peculiar rest of the brain namely sleep, is this atrophy produced.

But we must hasten to a close of this already too long article.

Dr. Bucknill discusses particularly the Pathology of Insanity by Sympathy, and of Monomania; and then gives

an account of special pathological changes in the general disease, in which he quotes the observations and opinions of a large number of writers, in various countries and times; those quotations being followed by his own observations, which appear to have been numerous. He, not only describes the particular conditions of the brain and its envelopes, but of other organs, such as the heart, lungs, stomach, liver, spleen, kidneys, and re-productive organs, and their connection with Insanity; then proceeding to the humoral pathology of the disease, and the pathology of General Paralysis—a peculiar and most fatal form of morbid manifestation affecting the Insane.

The last chapter of the work is devoted to the Treatment of Insanity; and it would give us pleasure to follow the author through, giving with some detail his leading views; but as space will not permit, we must refer the reader to the work itself, contenting ourselves with stating that as the author considers Insanity a disease of the brain, a reference to physical conditions, and to the use of such therapeutical agents as may affect those conditions, is constantly had, as well as to those measures which are strictly moral. The moral treatment which he recommends is, of course, mildness, kindness, and pursuasive discipline; while in the medical, should be kept in view these leading indications,—

> "First, To obviate any general derangement or diseased condition of the system. Second, To remove the pathological condition of the brain, whether consequent upon, or independent of, general physical disturbance. And, Third, To treat urgent and dangerous symptoms."

An Appendix is added, giving a number of cases illustrative of the different forms of the disease, and of the treatment pursued; while, as a frontispiece, a plate is given presenting minature portraits from nature, representing seven different types of Insanity.

In conclusion, we repeat that we have been deeply interested in the work of Drs. Bucknill and Tuke, and hope we have said sufficient to induce its purchase and careful perusal by our readers. We would earnestly commend, not only this book, but the subject of which it treats, to the attention of the great body of medical men.

A. B. P.

OF NATURE AND ART IN THE CURE OF DISEASE. By Sir John Forbes, M. D., D. C. L. (Oxon.), F. R. S., Fellow of the Royal College of Physicians, Physician to the Queen's Household, etc. etc. From the Second London Edition. New York: S. S. & Wm. Wood. 1858.

The work bearing the above title consists of a moderate-sized volume of 261 pages, well bound in cloth, in good type, and, so far as we have noticed, free from typographical blemishes. The matter is of much interest, consisting as it does of the views of a man of high position, of superior talents and acquirements, of great sagacity, of large and long experience, and of uncommon liberality of sentiments — views clearly presented, with apparently entire frankness and sincerity of expression, upon subjects of the deepest concern to every medical man, and indeed, to all men.

The work was first published in England less than two years since, and within that time has had a very extensive sale, and has received the approval of a large portion of the foreign medical press.

Its leading object is to impress the Profession, and the intelligent classes generally, with a belief in the great powers of Nature in the cure of disease, and the limited, though important, agency of Art in the same work. It is a formal expression of the sentiments now so prevalent among a very large and intelligent class of medical men, viz., That Nature, after all, is the great physician; that Art is only capable of rendering her collateral, and, often, very feeble, aid, and that, too, more by regimenal than pharmacological means.

That there is very much in this book that is true, there can be no doubt—that it is in the main rational and philosophical, every enlightened medical man must admit—that it exposes errors entertained by many physicians and most laymen can not be questioned ; but that it gives full credit to Medical Science and to the power of Medical Art when practiced with the greatest skill, we do not believe.

The human mind is ever inclined to extremes. It is a general law that over-excitement is followed by a corresponding depression ; that too high an estimation of any set of opinions is apt to be followed by too little confidence in them ; and that too great reliance placed in any system of means of certain, but limited powers, is apt to be followed by too little trust upon them, or by their total abandonment. Now, we have no doubt that thirty years ago the powers of Nature in the cure of disease was too lightly regarded—that perturbing and heroic treatment was too much trusted, and too extensively practiced ; neither do we question that, with many physicians, the same is true at the present time ; but that many are now running to an opposite extreme, and foregoing the advantages which active measures, skillfully and judiciously employed, are capable of conferring, we think we have abundant reason for believing.

Now, we by no means favor, either in our teaching or practice, an intermeddling polypharmacy. We indeed use all our warning and persuasive powers to prevent indiscriminate drugging, or attempting to interfere with disease in any way without clear and positive indications being perceived. We insist that one may feel his way carefully in the dark, but must never strike a heavy blow at random, where a friend as well as a foe may be its recipient ; that a rough instrument must not be thrust among the wheels and cogs of the delicate machinery of a watch when it fails to go aright ; in fact, we are constantly teaching, that, considering the

obscurity which still hangs over so many cases in their pathology and diagnosis, and the uncertainty of the effects upon pathological conditions of so large a proportion of drugs, that in treatment a course of wise expectancy is very often the safest and the best. In our annual course of instruction we spend much time — more than we know of any other general teacher of Therapeutics doing, on remedial measures aside from drugs — on the management of the senses and the mind — on the use of light and heat — of darkness and cold — of exercise and repose — of food and diet, of air and climate, of clothing and exposure, of occupations and modes of life, and of all the regimenal conditions which may influence health and disease — but in doing so we endeavor not to overlook or deny the positive influence which more strictly medicinal measures have in modifying many diseased actions, and the immense benefits their judicious application unquestionably confer.

On this subject we wish to be explicit, and hope not to be misunderstood. We find little to disapprove of in Dr. Forbes's general views respecting the tendencies and powers of the system in restoring healthy action. Most cases of disease, if left to themselves, will terminate in health, while medicines, of their own power, can not restore healthy action; many diseases require nothing more in their management than to regulate all external circumstances, and give Nature a fair opportunity; — indeed, hosts of cases recover in spite of treatment much worse than useless. All this is true, and on this subject Dr. Forbes scarcely says more. Neither does he deny the powers of medicines; and his views of their modes of operation, so far as he expresses them, are in the main correct. We also must admit that the evil effects of improper treatment, as too frequently practiced, go very far towards counterbalancing the good effects of successful medication, as Dr. F. intimates; but, notwithstanding all these admissions as to his correctness, we can

but believe that he underrates the real efficacy of proper treatment.

Perhaps a practice in the West, where miasmatic diseases, so much under the control of antiperiodics, abound, has tended to inspire more confidence in remedial measures than a practice in many other localities would have done; yet our convictions have not been the result exclusively of observations in this class of cases. Our experience in Epidemic Cholera, which has extended to many hundred cases, has impressed us very strongly with the efficacy of treatment even in that dire disease. We have seen many cases left to themselves with almost absolutely uniform fatal consequences; many others under treatment nearly expectant with approximating results; while other cases, precisely similarly situated in all external circumstances, occurring at the same time, and presenting in the outset the same symptoms, if vigorously, judiciously, and *seasonably* treated, terminating, in a very large majority of cases, in recovery. This we have witnessed in so many instances, and on so large a scale, that it seems impossible for us to be mistaken. There *can* be *no* mistake.

We acknowledge however, as we must, that the Art of Medicine is imperfect, and its powers are limited, but we are jealous of its just reputation; and a desire that it should have all the credit which belongs to it, has led to these extended remarks. We close, by commending the book to the careful and thoughtful perusal of our readers, assuring them that though it may have imperfections, it contains many excellent suggestions, and much truth well worthy of their attention.

By enclosing to the Publishers $1.00, the book will be sent free of postage. A. B. P.

LECTURES ON THE PRINCIPLES AND PRACTICE OF PHYSIC. Delivered at King's College, London. By THOMAS WATSON, M. D. Fellow of the Royal College of Physicians, late Physician to the Middlesex Hospital; and formerly Fellow of St. John's College, Cambridge. A new American, from the Last Revised and Enlarged English Edition, with Additions by FRANCIS CONDIE, M. D., Fellow of the College of Physicians, of Philadelphia; Member of the American Philosophical Society, etc., etc. With One Hundred and Eighty-Five Illustrations on Wood. Philadelphia: Blanchard & Lea. 1858.

A SYSTEMATIC work upon the General Practice of Medicine interests every medical practitioner; and this very general interest is attested in the fact that for the last fifteen years the work above named has occupied a prominent place in medical libraries, and, in not a few instances, we have noticed that the copies gave the appearance of having been well thumbed.

Having been so long and so favorably known, it is unnecessary to enter into an extended notice of its re-appearance. It comes out much enlarged, and with such thorough revision that it has the freshness of a modern treatise. In the advertisement to the London edition we are informed by the author that it has remained out of print for three years, in order that it might be thoroughly revised, the full occupancy of the author's time having prevented an earlier accomplishment of that work.

We have observed in some of our exchanges a favorable notice of the work, in which it was commended to the attention of persons who may have been mystified by the cant phrases "self-limited diseases," "innocent medication," &c. We know of nothing in the book before us which does not not fully quadrate with the self-limitation of certain diseases; and certainly the idea of administering remedies with caution, and with the fact in view that they may, if improperly or incautiously exhibited, be productive of harm, is abundantly recognized by the author. In fact, not "innocent medication" alone is recognized, but even abstinence from medication is, in certain cases, advocated

In treating a given case of disease in accordance with the recommendation of any author, we are not, we suppose, to attempt the exhibition of *all* the remedies suggested; that would be ignoring "innocent medication" with a vengeance. We venture that the author of the very clever satire entitled the "Paradise of Doctors" would not severely criticise Dr. WATSON'S *Practice* in this respect.

When, fifteen years since, the first edition of *Watson's Practice* appeared in this country, it was noticed by a few persons interested, that the author attributed to Dr. C. J. B. WILLIAMS a certain explanation of the cause of *crepitant rhonchus*. The edition of *Williams on the Chest*, then published, contained no such explanation, nor are we aware that a new edition has ever been issued. The explanation which Dr. WATSON credited to Dr. WILLIAMS was original with Dr. EDSON CARR, of Canandaigua, New York, and was published by him in the *American Journal of Medical Sciences*, as early as the year 1841. We allude to this matter in obedience to the principle of rendering unto "CÆSAR the things that be CÆSAR'S." G.

PAMPHLETS RECEIVED.

Rational Medicine and Paradise of Doctors. By JACOB BIGELOW, M. D. A remarkably clever production.

Typhus Fever in Great Britain, by J. B. UPHAM, M. D. From the *Boston Medical & Surgical Journal.*

Essay on Inflammation, by J. H. WATTERS, M. D. From the *St. Louis Medical Journal.*

Address to the Graduates of Atlanta Medical College, by C. B. Nottingham, M. D.

Editorial Department.

Legalization and Control of Prostitution.

The Legalization of so revolting a crime as that expressed in the term "Prostitution," for the sake of controlling and limiting the baneful and devastating influences which flow from it, destroying human life, and sowing broadcast in community the seeds of disease, is an idea which may well claim the attention of Legislators and Philanthropists, as it has for a long time received that of Medical Men.

When we reflect that this crime realizes, in its widest range, the fulfillment of the law that the sins of the father shall be visited upon the children of the third and fourth generations; that not only his children, but other innocent persons are in danger of contamination, and through these latter, their offspring also; that a large majority of scrofulous diseases which afflict the human family have their origin in this fountain-head of physical, as well as moral, depravity—we may well consider the question, Is there any plan by which this evil may be controlled and limited? The question is not, Can it be stopped? for the history of the world has answered that in the negative. Prohibitory and penal legislation has been impotent. The statute books are, in this case, a mocking monument of the majesty of the law. Neither is the question that of toleration. It has ever been tolerated; and, until the lion shall lie down with the lamb, and the personification of innocence shall lead the congregated elements of discord, the World

will continue to tolerate it. The plain, simple, undisguised question contemplates the *Legalization* of the crime—a Legalization for the sake of *Control.* And when Philanthropists and Statesmen fully comprehend the subject, it will receive their support; when Christians appreciate the length and breadth of the existing evil, the idea will lose its paradoxical aspect; when Modesty and Propriety gain an attitude which will enable them to overlook the whole field, from their new standpoint, appearances will change, and the shocking reality of the subject will modify sentiment; when Prudery, which is shocked at the bare mention of the subject, shall acquire a modicum of sense, even she may contemplate with composure a plan which not only binds the monster, but may, at the same time, afford the means of reclaiming a portion of his victims.

The subject is one of vast importance, and viewed from the standpoint of Public Hygiene, commands support. Every individual member of community has interests at stake, of which he is little aware; it is a hidden danger which threatens him. Our object should be to drag out, expose, and destroy it. Such an object has ever commanded the efforts of Medical Men, and we are extremely gratified to see that the "Ten Governors" of the Alms House of the City and County of New York have enlisted in an investigation which will, we trust, lead to important results. They have called upon the Resident Physician to the Hospital on Blackwell's Island for information covering the whole subject of Prostitution. The result has been the publication of an octavo volume of nearly 700 pages, containing a history of Prostitution, with an analysis of the causes which conspire to supply recruits, the sources from which this supply is drawn, the prevalence and extent of the evil, and the countless streams of disease which flow from it, and poison humanity through numerous unsuspected links.

In our next issue we shall give the work an extended notice. G.

Death of Dr. Leland.

It is with sorrow that we record the death of Dr. A. L. LELAND, late of this City. We had intended to have given, in this connection, a short biographical sketch of the deceased, but have been disappointed in obtaining the material.

Dr. L. was 45 years of age, a native of Massachusetts, a graduate in Arts, of Cambridge, and in Medicine, of Pittsfield. In Boston, he enjoyed extensive clinical advantages, after which he emigrated to this State, and settled in Pontiac. For the last eleven years he had practiced in this City. In feeling, deportment, and education, he was calculated to please, both in general and professional intercourse. His practice included a large proportion of the most refined class of society, and by this, as well as by the more humble class, his loss will be most deeply felt.

His last illness was brief, and his death was an event which startled the community. He had been suffering from slight quotidian chills for a week previous to his decease—so slight, however, as not to prevent his attendance to his regular duties. On Saturday, Nov, 13th, the chill was somewhat prolonged, and he was obliged to go out and attend to some business before it had completely left him. While thus engaged, he was seized with violent pains in the stomach, followed very soon by profuse hæmatemesis, which continued for over two hours, but was finally arrested, after continued use of the perchloride of iron. He had lost, however, as estimated by his physician, Dr. CLARK, over a gallon of blood. From the cessation of the hæmorrhage (7 o'clock P. M.), he passed a tolerably comfortable night, obtaining some hours of sleep. On Sunday morning, although very weak, he felt that the danger was

passed; and Dr. CLARK, on visiting him, finding reaction perfect, participated in the hopeful anticipations of his patient. But at eight o'clock a recurrence of the hæmorrhage took place, and he again threw up large quantities of blood. At the request of Dr. CLARK, we now visited the patient, and found Dr. STEBBINS also present. The patient was nearly pulseless at the wrist, and reaction never took place. Small quantities of blood were occasionally thrown up during the day, and life gradually ebbed till half-past 10 o'clock P. M., when it was gone.

Autopsy. — Sixty hours after death, an examination of the stomach, spleen, and liver was made. The superficial fascia of the abdomen and chest and the omentum were loaded with fat. The liver was pale and condensed. The spleen was soft, flabby, and corrugated, as though it had been largely congested, and subsequently emptied. The mucous membrane of the cardiac two-thirds of the stomach was thickened, and presented a dark brown color. No open vessel was found, or abrasion of surface. On holding it up to the light, however, numerous minute points appeared, which transmitted light; these points varied in size from a pin's head to that of a middle-sized shot, and seemed caused by absence of the whole thickness of the mucous membrane. Under the microscope, however, they proved to be minute vesicles filled with gas, occurring, probably, post-mortem. On injecting several of the vessels, the injection (composed of turpentine-varnish, thinned with turpentine, and colored with vermillion) oozed from every point of the surface!

At a meeting of the Medical Profession of this City, held subsequent to the death of Dr. L., Dr. PITCHER presiding, and Dr. DAVENPORT acting as secretary, the following Preamble and Resolutions were unanimously adopted:

The mighty and terrible Archer has again bent his bow, and sent his deadly shaft into our midst. Again has vigorous manhood

been stricken down by the fell Destroyer; and the death of another of our number has added to the triumphs of the Mighty and Unrelenting Foe. Terrible, in its swift destruction, was the visitation, the sad results of which we are now called upon to mourn. Regularly engaged in the duties of his Profession up to the day previous to his death, we have been startled by the announcement of the rapid illness and sudden death of Dr. A. L. Leland, who died at his residence last evening at half-past ten o'clock.

Dr. Leland had, for the past eleven years, been engaged in the practice of his Profession in this City. Modest and retiring in his demeanor, gentlemanly, courteous, and honorable in his intercourse with mankind, and particularly so with his professional brethren; fitted by education to enjoy and adorn refined social life, his loss will be deeply felt by a large circle of friends, and by his medical brethren. It is, therefore, the impulsive desire and sad pleasure of his surviving professional associates, unitedly, to testify to his worth and mourn his death; therefore

Resolved, That in the death of our late Brother, we recognize the warning, yet loving voice of Him who has said, "For my ways are not your ways, neither are your thoughts my thoughts."

Resolved, That we tender his afflicted widow our deep sympathy in this, her hour of anguish and woe.

Resolved, That in testimony of our love and respect for our departed Brother, we will attend his funeral in a body, wearing the usual badge of mourning.

Resolved, That a copy of the proceedings of this meeting be transmitted to the family of the deceased, and also furnished to the *Peninsular and Independent Medical Journal*, and the Daily Press of this city, for publication.

G.

Michigan Asylum for the Insane.

We have several times, of late, brought forward the subject of Insanity, and our Insane Asylum, to the attention of our readers. It is known by them that this institution, in design and model reflecting the greatest credit upon all concerned in it, is still unfinished, and not in a condition to receive patients—further appropriations from the State being required to set it in operation.

The Legislature will soon assemble, and upon the action of that body will depend the time in which the Asylum

will enter upon its work of humanity, and the extent to which, for some time to come, its beneficence shall be extended. We ask those of our readers who feel an interest in the proper treatment of the Insane (and who of them does not?), to call the attention of those members of the Legislature elect with whom they may be acquainted, to the subject, and impress upon them the importance to humanity and to the honor of our State, of a liberal course of policy towards this enterprise. Our neighboring States, but little older than our own, have had Asylums in operation for years past, and we have evidence on every hand that large numbers of the unfortunate Insane within our borders are unprovided with proper care and treatment. As an illustration of the necessities of the case, it may be mentioned that in the public papers, an account may be seen of the Semi-Annual Report of the Superintendents of the Poor of Wayne County, just presented, embracing an account of the condition of Wayne County Jail. In the list of those committed during the past six months, are *eighteen* for *Insanity!* For being insane—for being the subjects of disease, and one of the most afflictive diseases which can befall humanity — these unfortunate beings have been cast into *jail!*—and such a jail! The building, they report, is entirely unfit even for a prison in which to confine criminals. A leaky roof causes "many of the rooms to be damp and wet." Of its inmates, "many are in want of proper clothing — some are shirtless, and some are without pantaloons. The turnkey says those that are destitute have destroyed their clothing." This certainly is a spectacle which should arrest attention, occurring in a community like ours, in this age of the world. We may well inquire, How many of these eighteen will be restored to their homes, their families, and themselves again, to become producing and useful citizens? How many others were there when these eighteen were admitted? How many, by con-

finement in such a place, have had their diseases confirmed? And how many, thus rendered incurable, must be supported at public expense the rest of their lives? How many similar cases are there in other jails, and in the various poorhouses throughout the State? How many are confined in private, a terror to their friends, sinking into deeper and more hopeless disease?

The poorest Asylums cure fifty per cent. of those sent to them, and render the incurables comparatively comfortable and happy. Humanity, economy, State pride — everything urges to the speedy development of the full capacity of our Insane Asylum. A. B. P.

"The Senior Editor of the Chicago Medical Journal feeling badly" again.

In the September No. of this Journal, we deemed it our duty to refer to the extraordinary course of the Senior Editor of the *Chicago Medical Journal*, in traducing in wholesale terms the late meeting of the American Medical Association at Washington, and to suggest what seemed evidently the cause of such traduction. We expected a vituperative rejoinder from the jealous and irrascible Editor, and in this have not been disappointed; but his whole article, occupying three or four pages, is set upon a key at least an octave lower than we supposed him capable of. As an instance of his "dignified" course, he has taken advantage of a most clearly apparent typographical error to endeavor to make us appear ridiculous. The printer, in making up the pages of our article, accidentally transferred a line from the top of one page to the top of the next — marring of course, two sentences; and although it would be impossible for one reading the article with any care not to discover the nature of the error, Dr. Davis has presented the sentence in which the line was inserted from the former page, and asked his readers to peruse it a second

time, and see if they could make anything of it, etc. This needs no comment.

We stated in our article, as a specimen of his conduct, that, "because he did not get an opportunity to read" an installment of his Report, "as he had read before in full the other installments — or, *at least*, because the proceedings of the meeting were not conducted according to his fancy — he carried away the paper with him, and broke up the published series of his observations," etc.

He acknowledges he carried away the paper because he was displeased with the manner the proceedings were conducted, in not allowing him to read; but says he only wished to read a part of his Report (he read his former installments in full), and accuses us of uttering a statement "so utterly devoid of truth as to cause the blush of shame," etc.

As another, and the last, specimen of the key on which his article is written (for we do not propose to hold a controversy with one who conducts his discussions in such a manner), he says,

> "It may be that the Editor of the *Peninsular and Independent* is sufficiently anxious to see his name in print, to induce him to send a Report to the Committee of Publication without even its title being read," etc. "If so, we neither partake of his anxiety nor approve of his ideas of propriety."

From this it would seem that Dr. Davis can conceive of no other object in preparing papers on scientific subjects than to have the privilege of presenting them at a meeting, or seeing one's name in print. We had supposed that with some men the object of making investigations and publishing them was to advance the cause of science and humanity, and that the privilege of making a personal display was quite secondary and unimportant. This idea may be entirely new to the Editor of the *Chicago Journal*, but to those who are capable of understanding it, the contemplation thereof might not be without profit.

With these simple suggestions we shall leave the Editor to his own elevated thoughts upon the objects of scientific labors, and to reflections upon the honorableness of his course in replying to a cotemporary. A. B. P.

Medical Books.

We refer our readers to the Catalogue of Messrs Lindsay & Blackiston, in this No. of our Journal, for a complete list of new and valuable medical books.

It will be seen on the first page that they have introduced this year a new feature into their indispensable "Physicians' Visiting List," designed especially for Country Physicians who compound their own prescriptions or furnish medicines to their patients. For such, additional pages are interleaved, upon which charges can be made, or special memoranda of important cases.

Messrs. Higby & Stearns, of this city furnish these lists, as well as all the other books enumerated in the Catalogue, at the Publishers' prices.

Selected Articles, Abstracts, &c.

"The Michigan University."

[We insert the following article from the *American Medical Gazette*, and to those not having seen the November No. of that journal, a word of explanation may be required.

As we are informed, some one from this region sent to the editor of the *Gazette* a package containing newspaper slips, giving an imperfect account (not to use a harsher term) of the proceedings of the Board of Regents at their late meeting. Under the impulses produced by such an account, the editor wrote an article under the caption given below, intimating that the Faculty of the Medical Department, and especially the individual members whose names are subscribed to this article, were opposing the progress of Medical Improvement, by objecting to the proposed resolution given in the article. With a frankness in correcting wrong impressions given by others, which we found to mark the course of Dr. Reese in another case, he has promptly inserted the explanation in his pages, and seems fully disposed to make all the reparation which justice and fair-dealing demand. It is grateful to acknowledge such conduct from those who inadvertently may have presented us in an improper light.—A. B. P.]

UNIVERSITY OF MICHIGAN, Nov., 1858.

D. Meredith Reese, M.D. LL.D. Editor of *American Medical Gazette:*

Dear Sir,—In the November No. of your journal is an article entitled "The Medical Faculty of the University of Michigan blocking the wheels of the Board of Regents"—in which, after expressing the interest you feel, and have heretofore manifested, in Medical Education in the Northwest, and especially in Michigan, you express your surprise at opinions advanced by two members of the Medical Faculty, adverse to a certain resolution proposed by a Committee of the Board of Regents. Feeling confident that you have been misled as to the effect of the resolution, as well as to the position of the persons you choose to designate as the "recusant professors," and one of us, from past personal experience, knowing your readiness to correct such mistakes, we ask for a hearing in your journal, while

we, as briefly as is in our power, present the subject in its proper light, explaining the course we have pursued, and our reasons for the same,—thus submitting ourselves to the judgment of the Profession, and, if need be, to the "tender mercies of the American Medical Association."

Receiving as we do a fixed salary, independent of the number of students in attendance upon the instructions in the Medical Department of the University, it may not be difficult to believe us when we say, that it has been the constant aim of those connected with the Institution to elevate, as fast and as far as possible, the standard of Preliminary and Medical Education within it. It has ever been the rule of the college, and a rule *adhered to*, that candidates for graduation should not only present evidences of good moral character, but "also such literary attainments as have been recommended by the American Medical Association; viz., a good English education, the knowledge of Natural Philosophy, the Elementary Mathematical Sciences, and such an acquaintance with the Ancient Languages as will enable the student to appreciate the technical language of medicine, and read and write prescriptions." It has further been required that each candidate for graduation should, during his last course of lectures, write, and publicly read and defend, a Medical Essay, before each member of the Faculty, on some subject pertaining to the department of the particular Professor, besides a final thesis; which last is presented to the whole Faculty, and is subjected to the same ordeal of public examination and criticism. These severe tests of intelligence and scholarship, which have ever kept the members of the graduating class small in proportion to the number in attendance upon the lectures, it has been judged unadvisable to apply to the student during the first year's attendance — the Faculty thinking it best, under the circumstances which have existed, to require these evidences of general knowledge after full notice, and during the last year, when the student was actually applying for the honors of the Institution, and to be admitted into the ranks of the Profession.

To more fully show our efforts at advancement, we may further state, that the Summer Clinical Course, to which you referred, has been established in Detroit, and during its continuance the past two summers, one of the undersigned has devoted his whole time and and energies, in the lecture-room, at the bedside, and in the dead-house, to what, by good judges, has been regarded as true Clinical Instruction; — while, at the seat of the University, the best appointed Chemical Labratory in this country has been in successful operation for nine months of the year, where two Professors have been engaged for five days in the week, giving instruction to classes numbering about thirty, in practical manipulations in Chemistry and Pharmacy.

Under this state of things, at the close of a long Report from

a Committee of the Regents, on the question of the Removal of the Medical Department to Detroit (in which, as was stated by those present, much stress was placed upon the uncertainties and errors of regular medical doctrines and teachings, and upon the questionable effects of orthodox medical practice), a resolution was read by a very worthy and intelligent member of the Committee, who had nothing to do in getting up the Report, proposing "That each candidate for *admission* to the Medical Department of the University shall furnish satisfactory evidence of his own good moral character to the President, and, if not a graduate of this or some other University or College, he should possess a good English education, a knowledge of Natural Philosophy, and the Elementary Mathematical Sciences, including Geometry and Algebra, and such an acquaintance with *Latin* as will entitle him to admission into the Freshman Class of the Classical Course of the University, *to be ascertained and certified to by the proper Professors in that Course.*

The effect of such a resolution, if adopted, can readily be understood. Students wishing to become members of the Medical Department, instead of applying to the proper officers of the Department which they wish to join, would have to go to the President or Chancellor of the University, and present their formal evidence of moral character; and if not graduates of some Literary College, must then proceed in succession to the Professors of Natural Philosophy, of Mathematics, and of Latin, submitting themselves to examinations before these gentlemen, who have never been, and are not to be, their instructors, and to receive their certificates, or be rejected by them, if it should so happen that they had become rusty in the details of their school-boy studies.

In order to admission to the Classical Department referred to in the resolution, an examination must be sustained in "Latin Grammar; Cæsar's Commentaries; Cicero's Orations; the First Book of the Æneid (with special reference to Prosody); and thirty lessons in Arnold's Latin Prose Composition."

Upon the question of the *desirableness* of all medical men having at least this amount of Latin, we do not propose to enter — at least no farther than to say that such knowledge would doubtless be useful. So would be equally, perhaps, a knowledge of Greek — certainly so would be a knowledge of the living French and German, in which so many important medical works are written, and from which so many of our modern medical terms are derived. Even much more useful would be a knowledge of Botany, Zoology, Mineralogy, and the whole range of the Natural Sciences — all of which are so directly accessory to Medical Science, as well as important in furnishing discipline, and giving a scientific cast to the mind. But, while admitting the usefulness of such knowledge of Latin, in com-

mon with, though to a less degree, than many of the subjects above named, its absolute *necessity* to a medical man, even of the highest character (and the resolution implies its necessity to all medical men), may possibly admit of differences of opinion, but almost all physicians everywhere will say it is not thus necessary; and we confess that, after no little observation, experience, and reflection, this is the conclusion to which we have come. A superficial knowledge of Latin can be of little use as a means of mental discipline, and it is a subject of very serious question whether the long course of study necessary to master it may not be very much more profitably devoted to other mental acquirements.

There are other reasons of a special and local character why it is thought the passage of such a resolution by the Board of Regents would be improper. The sentiment against the *necessity* of the dead languages, and in favor, as substitutes, of a thorough study of our own language and literature — of the modern European tongues, the Mathematics, and especially the Natural Sciences and Philosophy — as means at once of mental discipline and of storing the mind with useful knowledge, has become so patent among us, that, in obedience to the popular demand, a "*Scientific Course*" has been established in the University, from which Latin and Greek are excluded.

In deference to the same popular demand, another institution of learning has been established, and is supported by the State, taking the name of the "Michigan Agricultural College," where a four years' course of study is pursued, connecting each day's study with three hours of manual labor, thus endeavoring to develop, symmetrically, the body and the mind, and placing within the reach of those of moderate means, facilities for the acquisition of knowledge; and in this Institution, where many of our young men of talent and energy are resorting, the dead languages, which are regarded by many as "cramping genius," are excluded.

The State Normal School, a most flourishing institution, where many of the young men of the State receive an education fitting them for various positions in life, as well as for teaching, grants its diplomas to those not having a knowledge of the Ancient Languages; and our State system of Union Schools, where a very high degree of mental discipline and a large amount of useful knowledge is imparted, make the Ancient Classics no necessary part of their Course.

Taking all these facts into the account, together with the general tendency of public sentiment throughout the world — a tendency which has already abolished Greek and Latin from the public Universities of Russia — and we find abundant grounds for the expression of the opinion, when our advice is asked, That the knowledge of such an amount of Latin as is contemplated by the resolution, should

not be made essential to the admission of otherwise well-qualified students to our lectures, for the purpose of receiving instruction in the elements of Medical Science.

We could but regard the adoption of such a course as eminently unjust to those citizens of our State who are desirous of Medical Instruction, and are qualified to receive it, but who may not have read, or if read not remembered, "Cæsar's Commentaries, Cicero's Orations, the first Book of the Æneid, and thirty lessons in Arnold's Latin Prose Composition"; and their qualification in those respects to be determined by a Professor in another department of the University. It was to this part of the resolution alone we made objections.

To advancing the requirements for admission to the class, tested in a proper way, we did not object. On the contrary, we distinctly stated that a more thorough knowledge of the English language and Literature, and of the Natural Sciences, rather than the dead languages, was the improvement needed.

That the Regent who presented the resolution was influenced by correct motives we have no doubt. We have long known him as a believer in Legitimate Medicine, and as warm a friend of the Medical Department as he is of the rest of the University; and when the objections were presented, he no longer desired the success of the measure. But, whatever may have been the motives in its concoction, in the judgment of its acting Faculty, a measure fraught with more evil consequences to the very existence of the Medical College could not readily have been proposed. Every Physician, having experience with students, well knows, that the number who would be willing to submit to such an ordeal, before those not their teachers, would be exceedingly small. The great mass of our students would inevitably be driven to schools far inferior in requirements to our own. No single school, and that surrounded by the most active and interested competition, — certainly no young school of the West — can *alone*, and *at once*, raise the standard of preliminary education even to the height that would be most decidedly desirable. We have the highest authority for saying, that not all things abstractly right are therefore expedient. Measures of advancement, in order to be successful, must ever be adapted to the circumstances present. Should we advance comparatively too far, when *all* around us lag behind, we might be thought to set a good example — might indeed receive the crown of martyrdom — but none would follow that example; while, in our deserted halls, Legitimate Medicine would cease to be taught.

Should ultra measures prevail, our rivals and enemies would rejoice. The various forms of Quackery would be jubilant, and the funds now applied for as thorough an education of medical men, as can at present be effected, to supply our State, would be appropri-

ated to other purposes; while the general cause of improved Medical Education would, instead of being advanced, experience a reverse. These are the unanimous opinions of those engaged at the seat of the University in the work of Medical Instruction. None of our zeal for the advancement of Medical Education is lost. Our opposition to Quackery has not abated. Though not as openly menaced with destructive interferences as a few years ago, we are still keeping guard. Jealous of our cherished Institution, we are ready to resist, come in what form it may, anything which threatens its existence or stability; while we hope to be equally ready to adopt any real improvements which are feasible and just, and to which the Profession and People would be willing to submit.

A. B. PALMER.
ABRAM SAGER.

Experiments with Bibron's Antidote to the Poison of the Rattlesnake, etc.

By William A. Hammond, M. D.,
Assistant Surgeon U. S. Army.

Some four years since, Prince Paul of Wurtemburg, the celebrated naturalist, communicated to my friend, Mr. De Vesey, the results of some experiments performed before the French Academy of Sciences by Professor Bibron, relative to an antidote to the poison of the rattlesnake. According to Prince Paul, Professor Bibron allowed a rattlesnake to bite him in the lips, cheeks, etc., and by taking the antidote discovered by him, prevented all alarming symptoms, and in fact suffered no inconvenience therefrom.

The antidote in question, as stated by Prince Paul, is prepared according to the following recipe: ℞. Potassi iodidi, gr. iv.; hydrarg. chloridi corros. gr. ij.; bromini, ℥ v. M. Ten drops of this mixture, diluted with a tablespoonful or two of wine or brandy, constitute a dose, to be repeated if necessary. It must be kept in glass-stoppered vials, well secured.

Prince Paul forwarded a small quantity of the above mixture to Mr. De Vesey, who used it successfully in the cases of two men bitten by rattlesnakes near his residence in Iowa.

During a recent expedition to the Rocky Mountains, I had several opportunities of testing its efficacy, and, since my return, have performed additional experiments with it. The results have been, upon the whole, exceedingly satisfactory, and I think that, when taken in time, it may be entirely depended upon in the poisonous wounds of the rattlesnake, and perhaps also in those of other venomous serpents.

First Experiment.—Heinrich Brandt, acting hospital steward, was

bitten on the 2d of July, 1857, in the index finger of the right hand by a large rattlesnake (crotalus confluentus), which he was in the act of putting into a jar for preservation. The snake inflicted a very deep wound, and hung by his fangs to the finger for a second or two before it could be detached. About four minutes after the bite, and before much pain or swelling had ensued, I administered one dose of Bibron's antidote. The symptoms almost immediately disappeared. Forty minutes after giving the first dose the pain and swelling returned, attended with considerable throbbing. I repeated the medicine, and in less than five minutes the finger had regained its natural appearance, and all pain and swelling had vanished. He remained perfectly well, and resumed his duties in an hour from the reception of the injury.

Second Experiment.—A very large rattlesnake was made to bite a young wolf (canis occidentalis) about three months old. The serpent wounded the animal severely in the left flank. Fifteen minutes after the bite the leg was much swollen, and the wolf exhibited signs of great uneasiness, yawning, stretching, and looking about in an anxious manner. These symptoms continued to increase in intensity till inability to stand, drowsiness, and slight convulsive movements ensued. I now (thirty minutes from the infliction of the wound) gave six drops of the antidote, with the almost instantaneous disappearance of the observed symptoms. In a few minutes afterwards the animal ate a large piece of meat.

Third Experiment.—On the following day the same snake was made to bite the wolf three times in the space of five minutes, in the flank, neck, and chest. In two minutes after the last bite the effects of the poison were evidenced by the inability of the wolf to stand, gasping respiration, and a fixed expression of countenance. Some delay occurred in getting the antidote ready, and before I could administer it all signs of life had apparently ceased. Nevertheless, I placed six drops far down the throat, where it seemingly remained, as no effort of swallowing was perceived. However, in one minute respiration again commenced, and the heart could be felt to pulsate. The wolf lived twenty-seven minutes, and then died comatose.

The rapidity of the action of the poison in this case, owing to the large quantity introduced into the system, prevented a successful issue. The good effects of the antidote were, however, sufficiently apparent to every observer, and I have no doubt that, had it been given before the faculty of swallowing was lost, the life of the animal would have been saved.

Fourth Experiment.—After my return to Fort Riley, a large crotalus confluentus, which I had brought with me from the Rocky Mountains, was made to bite a dog five months old. The wound was made in the right shoulder. The poisonous effects of the bite commenced in ten minutes, causing gasping respiration, inability to stand, etc. I at-

tempted to give a dose of the antidote, but the dog would not swallow, and I had no means at hand by which to introduce it into the stomach. I again tried to administer the remedy, but without success. The third dose was inhaled into the lungs. By this time the dog was perfectly senseless, and died in forty-five minutes after the infliction of the bite. Very slight swelling occurred in the wounded part.

Fifth Experiment.—Forty-five minutes after the the last experiment the same snake was made to bite another dog of the same litter as the preceding. The wound was inflicted in the lower jaw, very near the mouth. At the end of three minutes, and before any violent symptoms ensued, a dose of the antidote was given. The dog swallowed it readily. Five minutes afterward the animal seemed very uneasy. Respiration was accelerated, and he preferred to lie down in the shade. At the end of about fifteen minutes he could stand with difficulty; and, as the sickness appeared to be on the increase, another dose was administered. Nearly half of this was lost. Slight swelling was now perceived in the face and neck. When roused the animal would walk a few yards, though with great difficulty, and evidently preferred rest and quiet. About one hour after the bite he lapped a little milk and seemed to be better, wagging his tail when spoken to, and walking with less effort. No increase of the symptoms occurred, and, in fact, the dog was, to all appearance, perfectly well in two hours after the reception of the injury, except that slight swelling of the under jaw still remained. I saw him no more till next morning, when this had disappeared, and he was as active and lively as ever.

I had no further opportunities of repeating the experiments with other animals. During my absence, however, the antidote was used by Dr. Coolidge, U. S. Army (to whom I am also indebted for assistance in the latter experiments), in the following case, of which he has favored me with the subjoined account:

"In July, 1857, a girl, aged fifteen years, was bitten at Fort Riley by a rattlesnake, on the dorsal aspect of the first phalanx of the ring finger of the right hand. In a few moments the finger became swollen and bluish, and when I first saw her, about ten minutes after the receipt of the wound, the forearm had begun to swell, and pain extended to the elbow. She was depressed and somewhat nauseated. An elder sister had sucked the wound from the first instant. There being sufficient space above the wound, I applied a cord tightly around the finger, and then made a free incision down to the bone. As soon as the articles could be obtained from the hospital, I gave ten drops of the bromine mixture diluted, and injected into the wounded finger the preparation recommended by Dr. David Brainard, of Chicago, Illinois (see Annual Report Smithsonian Institution, 1854), viz.: ℞. Iodinii, grs. x.; potassii iodidi, grs. xxx.; aquæ destillatæ, f℥j. Solve. The patient expressed herself relieved after the first dose of the bromine; a second

was given in twenty minutes. The solution of iodine injected caused severe smarting pain; the fluid and air from the syringe could be felt a little above the wrist, and ultimately caused suppuration of the cellular tissue on the back of the hand. Nothing more was done. The girl recovered."

In conjunction with the mixture referred to in this paper, it will be observed that Dr. COOLIDGE laid open the wound and injected the cellular tissue with the tincture of iodine, as recommended by Dr. BRAINARD, of Chicago, so that the favorable result in this instance can not be attributed solely to the use of BIBRON'S antidote.

[*American Journal of Medical Science.*

SURGICAL ABSTRACTS.

NEW OPERATION FOR HARE-LIP.

ALLEN DUKE makes this operation by paring the edges of the fissure obliquely from before backwards, and introducing the sutures, armed by two needles, just behind the skin, through the rest of the thickness of the lip, and tying on the posterior surface of the lip. The removal of the upper suture is facilitated by bringing out the ends of the angle of the mouth and securing with adhesive plaster.

Where there is fissure of the jaw, the projecting portion is not completely severed, but, just enough to admit of its being used to fill up the space, the edges being pared and sutures introduced before the lip is operated upon.

He reports, in the *Lancet*, four operations upon children, whose whose ages varied from six weeks to four months.

SUFFOCATION FOLLOWING THE OPERATION FOR HARE-LIP.

Dr. JACOBI, in a Report on Infantile Pathology and Therapeutics, in the *Montreal Chonicle*, says that Professor BUSCH has directed attention to the fact that infants accustomed to breathe through a large abnormal opening, with the mouth closed, are sometimes liable to suffocation after the operation for Hare-Lip, by continuing to keep the mouth in that condition. Prof. VOLKMAN reports a fatal case of this kind in the *Monatschrift für Geburtskunde and Frauenkrankheiten.* The little patient was one year old. Dr. GURLT has also seen similar cases.

MODIFICATION OF THE OPERATION FOR IMPERFORATE ANUS.

From the same source, we learn that Dr. HERMANN FRIEDBERG recommends the method of AMUSSAT,—viz., bringing down the gut after the

opening is made, and stitching it to the perineum. The reason and the advantages are obvious. "REDFERN DAVIS thinks success more probable by often repeated, almost imperceptible tractions upon the gut, than by trying to bring it down at once." Such is the proposed modification.

FRAGMENT OF AN IRON SCREW REMAINING TWENTY-FIVE DAYS IN THE EYEBALL.

A young man, aged 18, while working at a screw-cutting machine, was struck on the eye-ball with great force by the fragment of a screw, which inflicted a wound and blinded the patient. Three weeks subsequently he was admitted to St. Mary's Hospital (London).

On examination the eyeball was found diminished in size, and presenting a large wound, involving the cornea, iris, and sclerotic. There was no trace of the pupil. There was great debility. Simple dressings, with generous diet and tonics, were ordered.

On the 8th of May, Mr. WHITE COOPER discerned a dark brown point in the wound, which, on touching with the probe, proved to be metallic. It was too firmly impacted to be removed without enlarging the opening. The patient was put under the influence of chloroform, the requisite incision made, and a piece of screw, four lines in length by three in breadth, and weighing 12 grains, was removed.

ARREST OF CANCEROUS GROWTHS.

"At the Cancer Hospital," says the *London Lancet*, "we have noticed, on several occasions, many very aged persons, who had been affected with cancer in the breast for many years, and in whom it had either been rendered altogether stationary, or had become diminished in size from atrophic absorption." The treatment appears to be "tonic internal remedies, such as columba and soda powders," together with "an embrocation composed of equal parts of liquor plumbi, almond oil, and distilled vinegar and water." A result, surely, most devoutly to be desired, but we confess ourself somewhat skeptical.

REMOVAL OF FOREIGN BODIES FROM THE SUBSTANCE OF THE BRAIN NINE MONTHS AFTER LODGEMENT.

Dr. TOLAND, in the *Pacific Journal*, relates the following:

Patient, age 25, sustained fracture of the skull upon the left side near the junction of the parietal, occipital, and temporal bones, from a pistol ball, which carried with it portions, at least, of itself, fragments of bone into the substance of the brain. Insensibility existed for three days. Nine months subsequently "denuded bone could be distinctly felt, with a probe, imbedded in the brain, and at least half an inch beneath the membranes."

Dr. T. found it necessary to use the trephine in order to affect removal. Four pieces of bone, and three flattened pieces of lead, were taken out. "After the operation he suffered for several days with violent pain in the stomach and bowels, and from great mental and physical depression, accompanied at first with constipation, and subsequently with dysentery and jaundice. He complained also of pain in the left side of the head, neck, shoulder, and arm, as well as of partial paralysis. His pulse was small and frequent, and he vomited every thing that was taken into the stomach. Mercurial cathartics, followed by anodynes, with cold applications to the head, controlled, in four or five days, all the alarming symptoms, and he gradually and slowly recovered, although the sensibility of the arm was not restored for a much longer period."

MEDICAL ABSTRACTS.

From an article in the August No. of the *Oglethorpe Medical and Surgical Journal*, translated from *Dr. E. Brown-Sequard's Physiological Journal*, we learn that the curious facts respecting Tactile Sensibility, as ascertained by the distance at which the two points of a pair of dividers applied to the surface produce a sensation as of one or two objects, has been applied to the ascertaining of the existence of Anæsthesis and Hyperesthesis in disease.

It is generally known that two points of the skin being touched at the same time by the two points of acompass, if sufficiently near together, give but a single sensation, or a sensation as if there was but one, and the distance at which two impressions are felt varies with the different degrees of sensibility possessed by different portions of the surface. For example, the distance at which the double sensation is experienced, is very much greater on the back and shoulders, than the points of the fingers, and the different degrees of sensibility can be measured with accuracy by this means.

This method has its application in partial paralysis, one limb being compared with its fellow, the same relative points being selected; and also in diseases attended by general loss or augmentation of sensibility, as well as to ascertain the degree of influence of Anæsthetics.

The application of the principle will readily be seen.

A. B. P.

Progress of Invention.

Much ingenuity is continually brought to bear upon the construction of instruments employed in medical and surgical practice. All the departments of our art are largely indebted to cutlers and others engaged in the fabrication of the various appliances so necessary to safe and expeditious

operations and dressings. There is a new otoscope, or speculum auris, invented by Mr. TIEMANN, of New York, which seems to realize the wishes of aurists, in the completeness with which it allows of a view of the tympanum. Dr. BETHUNE, who showed the instrument at the last meeting of the Medical Improvement Society, states that the vessels of the tympanum can be distinctly seen by it, and that the membrane itself is enlarged, by the lens through which it is viewed, to about the size of a dime. By means of reflected light, all the difficulties so long experienced in getting sufficient rays to fall upon the tympanum are avoided. The polished funnel which receives the light is directed upward, so as to throw it upon a small mirror within, whence it is reflected inward powerfully. The observer looks straight forward, as toward any object-glass. Several gentlemen tested the magnifying power of the instrument.

What with the double stethoscope, the ophthalmoscope, the improved microscope, and the new otoscope, the *scope* of the profession is likely to be increased beyond anything that ancient *horoscopes* could have divined!

[*Boston Medical and Surgical Journal.*

Guaiacum in Cynanche Tonsilaris.

Dr. BRUITON, of the Royal Free Hospital, says he has treated tonsilitis by the use of guaiacum for several years, on the idea that the tonsils are an offshoot of the alimentary canal, and that the inflamed structures are best relieved by free catharsis. For this purpose he gives guaiacum in large doses (20 to 60 grains) in powder, with the addition of aloes or jalap, and suspended in mucilage. These doses are repeated every four hours until the activity of the disease is subdued. The convalescence is very rapid, and strikingly in contrast with those cases treated by bleeding, or tartarized antimony and potassa, and blisters.

[*College Journal.*

Erysipelas — Its Nature.

H. P. BIRD, the author of the Jacksonian Prize Essay on Erysipelas, says: "That Erysipelas is an example of that diffuse inflammation which constitutes inflammation of the mucous membrane, diffused phlebitis and puerperal fever";—all of which have a common origin, a poison in the blood, are infectious and contagious, and may mutually produce each other. He also confirms the remarks of GULLIVER and WILLIAMS, that in Erysipelas there are, at times, pus globules in the blood in parts of the system remote from the seat of the inflammation.

[*College Journal.*

Action of the Pancreatic Juice and Bile in the Absorption of Fat.

SCHIFF contests, upon pathological grounds, BERNARD'S view that the *pancreatic juice* is the only and indispensable agent for the absorption of fat. He adduces some cases in which a considerable amount of fat was discovered in the body of such who had suffered for a long time from disease of the pancreas. He further shows that there are cases on record in which the excretion of large quantities of fat-like matter with the fæces had taken place without disease of the pancreas.

Regarding the action of *bile* in the absorption of fat, SCHIFF contends that the bile does not produce any chemical alteration in the fats, and facil-

itate, through this, the absorption; but that it acts as a stimulant on the contractile elements of the villi; that it causes them to contract and to empty their contents into the lymphatic vessels; that thus room is prepared for the entrance of a fresh quantity of fat into the emptied villi. The author shows by experiment that bile is a stimulus for the muscular fibre, and especially the organic muscular fibre.

[*British and Foreign Medico-Chirurgical Review.*

Compression for the Cure of Popliteal Aneurism.

In a report by Mr. Key, of London, in regard to the progress of surgery, he has endeavored to show that the object of *modern* surgery is to repair and restore, rather than to mutilate and destroy. Hence, when speaking of Aneurism, he asserts that the compress has taken the place of the knife. The operation for Popliteal Aneurism he thinks is about numbered among the relics of the past.

[*College Journal.*

Collodion as an Erector of Flat, Undeveloped Nipples.

By coating the vicinity of the nipple, in a circle of an inch and a half wide, with collodion, the compression effected during the contraction of this adhesive material, will cause the nipple to be protruded sufficiently to allow of convenient nursing, when otherwise it would be entirely impracticable. There should be a space of half an inch of the areola around and near the nipple left uncovered by the collodion. It is well known that if the nipple can be drawn until the tumefaction of the mamma somewhat subsides, there will be no further trouble, and it is believed this simple means will often relieve us of much anxiety upon this score.

[*Chicago Med. Journal*, from *Med. Zeitung, Russlands.*

Glysters of Alum for Dysentery, by Dr. Hamon.

In two epidemics of dysentery, the author has used alum very profitably. To children under ten years of age, he gives injections, containing —owing to the difference in age—from 15 to 40 grains in solution. To grown persons, he administered from 60 to 120 grains at one injection. The patient should remain perfectly quiet on the abdomen or right side after receiving the glyster, and retain it as long as possible. The alum is astringent, irritant, and disinfectant in its action. The offensive and putrid evacuations become entirely odorless after a few such injections.

When the disease is in its earliest stages, a few injections he found to be enough to effect a cure, and it was always beneficial. In one parish, in which there were thirty-five patients, all recovered; and in another of forty, only two died, and they were quite old people.

[*Chicago Med. Journal*, from *Schmidt's Jahrbucher.*

Cancer of the Lip.

M. Chapel has observed that nine out of ten who had cancer of the lips are males. As most of the patients observed by him were smokers of tobacco, he thinks the use of pipes or cigars, and the *heat* they impart to

the lips, a frequent cause of Cancroid disease. M. Begin, who was appointed by the Academy to examine the paper of M. Chapel, fully agrees with the author.

[*College Journal.*

Glycerine for Corns.

Mr. Wakeley, in the Royal Free Hospital, London, is in the habit of applying Glycerine to Corns. It softens those excresences so that they may be scooped out with ease.

Eczemetous and Impetigenous Eruptions.

M. Gibert, of Paris, uses for Eczematous and Impetigenous Eruptions the following mixture, with much alleged success :

℞. Glycerine, f. ℥j.
Purified Tar., f. ʒ ss.

Warm, and add enough powdered starch to make a homogeneous paste of moderate consistence.

It is said to relieve itching, heal excoriations, dry up secretions, and dispel redness. It is worthy of a trial.

Pharmaceutical Department.

Extemporaneous Chlorine Solution.

A preparation of Chlorine can be readily prepared as follows:

℞.		
	Common salt . . .	twenty-four parts.
	Red Lead . . .	one part.
	Sulphuric Acid . . .	twenty-four parts.
	Cold Water . . .	one hundred parts.

Mix the red lead with the salt, and introduce into a vessel containing the water. The acid is then gradually added, stirring at intervals. By this process, sulphate of lead is first formed and precipitated, and sulphate of soda and chlorine remain in solution; the latter gives the liquid a yellow color, and is gradually disengaged from the surface of it. For disinfecting purposes, it should be poured into shallow plates. It is cheaper than chloride of lime, and more convenient.

We have recently had this solution recommended by Mr. Hagan, a Pharmaceutist of Troy, N. Y., as an admirable means of bleaching sponges, a single immersion in it for a few moments rendering white the coarsest or finest sponges, without materially injuring their durability.

F. S.

Podophyllin.

R. H. Stabler, M. D., of Alexandria, Va., in a paper upon Podophyllin, read before the American Pharmaceutical Association, after reviewing the experiments of others, and detailing some experiments of his own, showing that the activity of the plant is not soluble in water, but due to principles soluble in that menstruum, and allied to the feeble acids, being resins proper, closes with the following remarks:

That podophyllin may be advantageously substituted for extract of jalap in the compound cathartic pill of the Pharmacopœia, we have abundant evidence to believe. The object of that preparation was to combine smallness of bulk with efficiency and comparative mildness of purgative action, and a peculiar tendency to the biliary organs. Dr. Eberle, who has frequently used the root, says of it, "As a cathartic I have given the powdered root very frequently instead of jalap, and have always found it

active and safe in its operation. It is, however, more drastic and apt to gripe than jalap; nor does it appear to be so prompt in its effects as a cathartic. Calomel renders its operation milder."

Dr. Burzon says, "Its operation is slower than that of jalap, but it leaves the bowels longer in a lax and soluble condition." "The medical properties of the Podophyllum peltatum," says Dr. Bigelow, "are those of a sure and active cathartic, in which character it deserves a high rank among our indigenous productions. We have hardly any native plant which answers better the common purposes of jalap, aloes, and rhubarb."

Dr. W. P. C. Barton, and indeed all others who have used the remedy, give uniform testimony of its certainty and efficiency.

Resin of podophyllum, or podophyllin, appear to represent all the activity of the root, is efficient, and when properly combined with other purgatives, as it would be in this pill, mild in its effects.

The high price of scammony, together with the fact that it is nearly always adulterated,—indeed the pure article is seldom met with in the drug market,—renders it very desirable that we should find an efficient substitute: and if it can be obtained from this,—one of our own indigenous plants,—at a comparatively low price, and of uniform composition, it will enable us to dispense with an article of such uncertain strength as commercial scammony now is.

Podophyllin is an active hydragogue cathartic, fully equaling virgin scammony in effect, resembles it in the character of evacuations produced by it, and is applicable to similar diseased states of the system, and can, I think, be advantageously substituted in any of the preparations of the Pharmacopœia, in which scammony forms an ingredient.

Pepsin in Pastiles.

Mr. Berthe, a French pharmacien, recommends the employment of Pepsin in pastiles, instead of in syrupy solution; as in the latter the sugar (induced by the presence of water) modifies the Pepsin, converting it gradually into glucose and lactic acid. The pastiles are made with gum arabic paste, flavored with lemon, and contain in each the usual dose of Pepsin.

Glycerine in Lotions of Metallic Salts.

In the formation of certain lotions and washes with metallic salts, when mucilage is employed, a precipitate is formed. This can be prevented, says M. Dannecy, of Bordeaux (*L'Union Médicale*), by the use of Glycerine instead; which is as mild and soothing as mucilage, and does not decompose like it.

Tincture of Iodine for Extirpating Venereal Warts.

Dr. Charles V. Monelle, of Baltimore, in a letter to the *American Journal of Pharmacy*, proposes the employment of Iodine with Nitrate of Silver, in eradicating Warts. He says:

I first cauterised the wart with lunar caustic, sufficiently free to reduce

it to a level with the surrounding cuticle, and then upon the exposed surface dropped from three to five drops of the tincture iodine; this I repeated three or four times daily, for three days, and then applied a dressing of lint and simple cerate, which healed the sore very rapidly.

The above treatment causes but little inconvenience to the patient, and two recent cases were located upon the glans penis, and treated with the iodine with perfect success.

I have frequently removed the common warts from the hands and face by the same means, and in no case has their been a scar formed from the use of the iodine.

Coating Pills Extemporaneously.

Mr. C. F. G. Collins, of Beloit, Wisconsin, in a communication to the *American Journal of Pharmacy*, proposes the following method for coating pills:

Take finely powdered Sugar,		3 parts.
" "	Gum Arabic,	1 part.

Mix. Spread a sufficient quantity of this powder on one end of a pill tile, and have a little simple syrup on the other, coat the pills with syrup, then roll them in the powder, repeat if necessary, and roll in a little calc. magnesia or sugar of milk, to prevent their adhering while moist.

After a little practice, pills may be coated in this way in about the same length of time that it ordinarily takes to roll them, and though they may not be quite equal in appearance to those coated in large quantities by the usual method, I think they answer the purpose equally as well.

Crotonole.

During some investigations into the characteristics of the seeds of the *Croton Tiglium*, Mr. Thomas Schlippe has discovered that the caustic principle is not crotonic acid (C^8 H^6 O^4), as hitherto supposed, but is a resinous body (Crotonole), the formula of which is C^{18} H^{14} O^4, or a multiple of it.

This caustic matter, *Crotonole*, has no purgative action, the latter property belonging to another body which was not detected.

It is obtained in the following manner. Croton oil is agitated with a sufficient quantity of an alcoholic solution of soda to form a milky fluid; this is gently heated for some hours, and then, by the addition of water or of solution of chloride of sodium, the milky oil-particles are driven to the surface, where they unite to form a continuous oily stratum. This fatty oil is entirely got rid of by repeated filtration through a moist filter. From the filtrate, water and muriatic acid separate another oil, which is dissolved in cold alcohol, and mixed with fresh hydrated oxide of lead; by this means a flocculent precipitate is formed, which towards the end often coheres to form a slimy mass. When the acid reaction has entirely disappeared, a little soda and a large quantity of water are added, by which the fluid is first rendered milky, but afterwards divides into a clear fluid and a clear oil which sinks to the bottom. To attain this, an addition of large quantities of chloride of calcium to the alcoholic solution was frequently indispensable. The oil thus separated is washed with

water for some time upon a moist filter, and then dissolved in æther; the ætherial solution is agitated with water in a cylindrical glass, the clear ætherial solution is drawn off and freed from æther in a capsule *in vacuo*. The Crotonole remains as a tenacious mass, resembling thick turpentine. It is colorless, or of a slight wine-yellow color. The odor is weak and peculiar. In its properties it most closely approaches the alcohols.

It appears from the action of boiling solutions of soda or potassa upon this body, that the use of mixtures of Croton Oil with solutions of these alkaline bases would be contra-indicated, when its vesicating action is required.

It further appears that the oil obtained by means of percolating the crushed seeds with alcohol (sp. gr. 0·848) is more efficacious as regards its inflammatory action upon the skin, than that obtained by simply expressing the slightly-heated seeds; which latter process, we believe, is employed both in India and England, at the present time.

F. S.

Arnica Cerate.

N. Hynson Jennings (*Journal of Maryland College of Pharmacy*) prepares a plaster, or hard Cerate of Arnica, in the following way:

Take of	Arnica Flowers	4 ounces.
	Olive Oil	6 "
	Beeswax	10 "
	Diluted Alcohol	a sufficient quantity.
	Sulph. Ether	" "

Having reduced the flowers to a tolerably fine powder, moisten with diluted alcohol and pack firmly in a glass funnel; exhaust, and, by means of a water bath, evaporate to about five fluid ounces, and mix with the oil and wax, previously heated together; then boil over a slow fire till all moisture is dissipated, and lastly strain. A little ether is required to dissolve the resin deposited on the sides of porcelain dish.

He states that it has been found to afford great relief in tenderness of the feet, produced by exposure to intense cold.

SELECTIONS, &c. FROM CURRENT JOURNALS.

THE INFLUENCE OF LIQUOR POTASSÆ AND OTHER FIXED CAUSTIC ALKALIES UPON THE THERAPEUTIC PROPERTIES OF HENBANE, BELLADONNA, AND STRAMONIUM. By Dr. A. B. Garrod.

The object of this second communication was—

1. To prove that the active principles of the plants under consideration are absolutely destroyed by the influence of the caustic alkalies.

2. To show the ratio which must exist between the different preparations of the plants and the alkalies for the neutralization to be perfect.

3. To ascertain the time demanded for the decomposition to be complete.

4. To illustrate clinically the influence of the alkali in preventing the occurrence of symptoms, and removing such when large medicinal doses of these solanaceous drugs are administered.

Dr. Garrod, before proceeding to discuss these various heads, brought under notice a few points relating to the nature of liquor potassæ, and the properties of some of the officinal preparations of henbane, &c., showing that the former, although strongly caustic, still possessed but little neutralizing power, containing so small an amount of potash — not more than 6·7 per cent.; and that most of the preparations of henbane, belladonna, and stramonium, as the tinctures and extracts, were strongly acid in reaction, and hence, before the alkali could act upon the active principles contained in them, it must first neutralize this acidity, next separate the alkaloids from the acids with which they naturally are combined in the plants; that, therefore, much more was required (measured by the physiological or therapeutic strength of the drugs) to neutralize the galenical preparations than their alkaloids, or the active principles themselves. To prove that the active principles were absolutely destroyed by the alkali, he (Dr. Garrod) performed several experiments in the following manner: — A solution of atropine was made by dissolving it in water with the aid of a little spirit, dividing the solution into two parts, adding to one some carbonate of potash, to the other a sufficiency of liquor potassæ, and permitting both to remain for some hours. Chloroform was afterwards well shaken with both solutions, and allowed to subside, the supernatant fluid being poured off, and the chloroform washed with a little distilled water. Each portion was evaporated spontaneously in glass dishes. From the solution, to which carbonate of potash had been added, a gummy matter was obtained (soon, however, becoming crystalline), a solution of which dilated the pupil intensely; and when acidulated with hydrochloric acid, and chloride of gold dropped in, gave rise to the beautiful plumose crystals of the double chloride of gold and atropine. From the second solution, that to which liquor potassæ had been added, a strong-smelling substance was left, on the evaporation of the chloroform, having no power of dilating the pupil, and giving rise to no crystallization with the gold salt. These experiments demonstrated beyond doubt the absolute destructive agency of the caustic alkali upon the active principles. It was also shown that most other alkaloids, as morphia, quinine, cinchonine, &c., were not so destroyed. To show the ratio which must exist between the different preparations of the plants and the fixed alkali, in order that neutralization may be perfect, Dr. Garrod gave the results of more than sixty experiments and observations in a tabular form, from which it appeared that when atropine is acted upon by liquor potassæ, the destructive influence of the latter is so great, that less than twenty minims are required to neutralize one grain of the former, and that probably pure potash will destroy its own weight of atropine. That when belladonna preparations are employed, the power of the potash becomes weakened, from the causes above alluded to — namely, the natural acidity of the drugs, and the necessity of first displacing the alkaloid from the acid with which it is combined; still, however, it was shown by the table that fifteen minims of liquor potassæ will destroy a fluid drachm of the tincture, and that twenty-five minims are sufficient to produce the same change in five grains of the extract; at once demonstrating that quantities very greatly beyond the medicinal doses of these drugs—indeed, even poisonous amounts—are rendered quite inert by very moderate addition of the alkaline solution. The same was found to hold good in the case of daturine and the prepara-

tions of stramonium. Ten minims of liquor potassæ will neutralize a drachm of tincture of henbane, and thirty minims destroy nine grains of extract of henbane, although when ten grains are employed, dilatation will often ensue from a small portion of the extract, less than one grain being left free; and it should be observed that a very minute proportion of these preparations is amply sufficient to induce the effect. Of course these extracts and tinctures are liable to variation in strength, acidity, &c., circumstances which must necessarily produce an alteration in the requisite amounts of liquor potassæ required for complete neutralization. With even the best extract, however, procured from one of the first druggists in town, it was found that nine grains were destroyed by the above-named quantity of potash. Nine grains of good extract of henbane and three fluid drachms of good tincture of the same may be considered as doses of the drugs which few practitioners would prescribe; yet these are destroyed by thirty minims of liquor potassæ, proving beyond all doubt, that in the proportions prescribed in actual practice, a total neutralization of effect ensues. To ascertain the required time, Dr. Garrod made experiments with solutions of atropine, and commenced the observation shortly after the addition of the potash. In an hour and a half the effect on the pupil was much diminished, and in two hours and a half ceased altogether. The influence of the alkali in preventing the occurrence of symptoms, and removing the same when large medicinal doses of these solanaceous drugs are administered, was clinically illustrated by the narration of several cases, in which, after very decided effects had been induced by henbane or belladonna preparations, the addition of a very small quantity of liquor potassæ to the draught (the patient continuing the other drugs) quickly caused the cessation of the symptoms; and again, other instances where the withdrawal of the liquor potassæ from a combination was followed by the occurrence of powerful symptoms. From these observations and experiments, Dr. Garrod concluded that the liquor potassæ possessed the peculiar power of destroying the active principles of henbane, belladonna, and stramonium, even when in very dilute solutions, and that the combinations frequently prescribed are utterly incompatible both in a chemical and therapeutical point of view.

In answer to Dr. O'Connor,

Dr. Garrod stated that he had not tried the effect of heat in his experiments, but he had no doubt that an increase of temperature would increase the rapidity of decomposition.

Dr. O'Connor said he had observed for a long time past the facts stated by Dr. Garrod; and that it had been distinctly stated by Geigar, on the authority of Liebig, that atropa, stramonium, and hyoscyamia were decomposed by fixed alkalies, and that on the application of heat the decomposition was more rapidly effected. From having read the statement of Liebig some twelve or thirteen years ago, he had never since ordered fixed alkalies in combination with either of those preparations.

Dr. Garrod said he had enumerated in his paper the works in which the statement had been made, that alkalies had the power of destroying the active principles of henbane. He claimed no originality in the matter, but simply the merit of having brought the subject prominently forward, at a time when, notwithstanding the statements of several authors, medical men were constantly in the habit of prescribing medicines which had the power of completely neutralizing each other.

[*London Pharmaceutical Journal.*

IODATE OF POTASH.

Messrs. Demarquay and Custin consider that the action of this salt is more powerful than that of the chlorate of the same base, and that it has

yielded excellent results where the chlorate of potash had failed. The dose varies from five to twenty-two grains, and it has been used in diphtheritis, mercurial and gangrenous stomatitis, &c. From M. Millon's directions, the salt may be obtained as follows: — One part of iodine and one of chlorate of potash are brought in contact with six parts of boiling water, acidulated with a few drops of nitric acid. When chlorine ceases to be given off, a concentrated solution of chloride of barium is added to the liquor. The washed iodate of barytes is then decomposed by sulphuric acid, the sulphate of barytes is separated by filtration, and the fluid is slowly evaporated. The crystals of iodic acid are then washed with distilled water, redissolved in boiling distilled water, and the solution saturated with bicarbonate of potash. A great portion of the salt is deposited in little crystals on cooling.

[*London Pharmaceutical Journal.*

SUPERPHOSPHATE OF IRON AND LIME.

At a meeting of the Medical Society of London, February 20th, Dr. Routh exhibited a new preparation of superphosphate of iron and lime. It was prepared by dissolving phosphate of iron and phosphate of lime in equal proportions in hot metaphosphoric acid, and adding sugar to the solution to make a syrup. Some years ago he had recommended the syrup of the superphosphate of iron (elsewhere known as the biphosphate of iron) as a remedy for weakly children, and those weak adults with mental diseases. Its uses as such has been since amply proved. He now recommended this as an excellent remedy in rickets and weak children with deficient osseous development. It was very pleasant to take, and did not blacken the stools. Each ounce of the syrup contained five grains of iron and five of phosphate of lime.

SUBCARBONATE OF BISMUTH.

This preparation is strongly recommended by Professor Hannon, of the University of Brussels, as a substitute for the tri-nitrate of Bismuth. The following are some of the advantages attributed to it: It is very soluble in the gastric juice, and its action is very prompt, without producing that sensation of weight in the stomach which often follows the tri-nitrate; hence it can be continued much longer than the latter preparation; its alkaline properties give it the great advantage of neutralizing the excess of acidity which so often exists in the stomach in the various forms of indigestion. It rarely causes constipation. Dose for adults, from ten to forty grains; for infants, from one to five grains.

PROCESS FOR DECOLORIZING FATTY OILS.

C. Bruner, has discovered a general process for fixed oils, described in *Bremer Mittheilungen*, December, 1857, as follows:

The oil is made into an emulsion with water, to which the proper consistence is given by gum or starch-paste, and this emulsion is well with thoroughly ignited charcoal, coarsely powdered and freed from fine dust by sifting. To 1 part of oil about 2 parts of charcoal powder are

taken. The doughy mass is allowed to dry thorougly at a temperature which should not exceed 212° F., and the oil is subsequently extracted with æther in the cold in a displacement apparatus. After this extract has deposited any charcoal-powder that may have passed through during the extraction, it is put into a retort, and the æther is distilled off the waterbath. In this way olive-oil and walnut-oil are completely deprived of color.

It might perhaps be supposed that the charcoal has a direct decolorizing action in this case upon the oil, just as in many cases it clears many aqueous fluids. This, however, is not the case, Oils left in contact with charcoal for weeks together did not undergo the least decolorization, even when they were dissolved in æther and digested with charcoal. The presence of the water contained in the emulsion appears first to give rise to the action. It is probable that by the preparation of the emulsion, the coloring matter, which does not belong to the oil itself, is taken up by the water and afterwards absorbed by the charcoal.

The action may be similar to that set up in the operation employed by painters to bleach oils, which consists in agitating the oil sufficiently with an equal volume of water, and exposing the mixture to the sun. The water, which soon separates again from the oil, appears turbid, and often mixed with slimy flakes. The operation is repeated for weeks, the water being frequently renewed, until it is no longer rendered turbid, and the oil appears limpid.

In the above process the essential part appears to be the complete desiccation of the charcoal mixed with the emulsion. If the oil be extracted with æther before this is the case, it is obtained again with its original colour.

Lastly, it is to be remarked that by this process the oils undergo a very remarkable thickening. Thus walnut-oil is obtained nearly of the consistence of butter.

IMPROVED ADHESIVE PLASTER.

M. Colson, as the result of twenty years' trial, recommends the following plaster in place of the ordinary diachylon, as it never gives rise to irritation or erythema:

℞.	Olive oil	500 parts.
	Minium	250 "
	Yellow Wax . . .	185 "

These are to be heated together and stirred round with a spatula until the mixture assumes a black color, when it is to be taken off the fire, and stirred until quite thick. It is then to be formed into rolls on a marble table.—*Revue Méd., June.*

ON THE REGENERATION OF RESINIFIED ESSENTIAL OILS.

The process consists in purifying old essential oils by submitting them to the action of a solution of borax with animal black. The solution of borax is mixed with the animal charcoal to form a thin magma; the oil is then added and agitated for a quarter of an hour. At the end of this time the magma is found adhering to the sides of the bottle, whilst the essential oil flows limpid. The change consists in a sort of union of the

resinous matter of the oil with the borax. The author has thus obtained the oil of lavender, peppermint, and neroli completely restored in odor.

M. Curieux.

NITRATE OF SILVER.

M. Henry Schœrer recommends the following process for making nitrate of silver from coin: The alloy is dissolved in nitric acid; the bluish colored liquid is heated carefully until it ceases to give off nitrous fumes and is mixed with black oxide of copper, the result of the decomposition of the nitrate of copper. This is then filtered out, and the pure solution of nitrate of silver evaporated and crystallized.—*Revue Méd., June.*

NEW MODES OF ADMINISTERING IODINE.

Efforts have lately been made in France to administer iodine in a more efficacious manner than had hitherto been done. M. Leriche, of Lyons, has published valuable articles in *L'Union Médicale*, wherein he endeavors to show that iodine, combined with vegetable substances, advantageously replaces cod-liver oil. He proposes a syrup made of the juice of water-cress and iodine, and also an iodine wine. The syrup has the advantage of not fermenting, and contains exactly one grain of iodine per ounce. The wine is composed thus:—Bordeaux wine, eight ounces; concentrated infusion of red roses, about thirteen drachms; tincture of iodine, one drachm and a half. Each ounce contains one grain of iodine. From one to six tablespoonfuls may be given daily, according to the indications and the age of patients. In the space of three years M. Leriche treated thirty-eight scrofulous patients with the wine; twenty-one were perfectly cured after a treatment steadily pursued for some time; eight did not improve at all; and nine improved but slightly, either because the treatment was carried on imperfectly, or because it was left off too soon.

M. Boinet, on the other hand, well known by long-continued investigations respecting the use of iodine, read, on the 28th of September last, before the Academy of Medicine of Paris, a paper, in which he proposes to use iodine as an article of food. The author administers iodine as found in nature—viz., combined in those plants which contain the greatest quantity of the alkaloid. The latter being thus given in minute doses, in a continuous and almost imperceptible manner, yields most advantageous results. M. Boinet uses fuci, marine plants, cruciferæ, salts containing iodine, and some mineral waters holding iodine in solution. His excipients are, ordinary bread, ginger-bread, cakes, biscuit, chocolate, wine, beer, syrups, &c., some being especially calculated for children. Trials were begun by M. Boinet as far back as 1849, upon subjects suffering very severely from the various well-known scrofulous symptoms, and most of them were cured after continuing the iodized food for several months. The author has not found that iodine administered for a long time produced loss of flesh and atrophy of certain organs. Far from having these effects, the iodine, in his hands, has invigorated patients, and favored the development of organs. Messrs. Chatin and Trousseau are to report upon the paper.

[*American Druggists' Circular.*

CODEINE A REMEDY FOR BRONCHIAL COUGH.

Dr. Dumont, in the *Bulletino delle Scienze Mediche*, in a note concerning the persistence of cough after bronchitis, says:

Perhaps every practitioner has observed persistence of cough after the cessation of all signs of inflammation of the air passages, and in the absence of granulation of the pharynx — a fruitful source of coughs—simulating those which arise from more profound affections.

Dr. Dumont had a woman under his charge with such a causeless cough, and had prescribed successively mild purgatives and light revulsives to the skin without benefit.

The preparations of opium were finally abandoned, on account of the high excitement they caused, even in minute doses. Other calmants were resorted to, but to no purpose.

Then, recollecting the interesting physiological researches of Berthe, and the remarkable and useful observations of Aran and Vigla, he determined to resort to *Codeine*, the alkaloid so carefully (*conscienziosamente*) studied by Berthe.

In consequence of the extreme sensibility of the lady, he prescribed only two or three spoonfuls of the syrup of Codeine in the course of the evening and night (from 3-10ths to 3-4ths of a grain, according to the necessity). The first night she was able to sleep an hour without coughing, which she had not done for a long time. At the expiration of seven or eight days she was entirely relieved of the cough from which she had suffered so much.

This fact may, perhaps, serve as an excellent guide, and though not rigorously explained by scientific theory, may well be turned to some purpose in clinic practice.

OINTMENT OF MANGANESE—THERAPEUTIC EFFECTS.

In the *Journal de Chemie Médicale*, M. Hoppe states that after a long trial with the salts of Manganese in the form of ointment, he gives them the preference, as a general remedy, to the ointment of Iodine or its ordinary salts. In those cases where fibrous induration exists, in old glandular engorgements, and in cases of thickening and tenseness persistent after the cure of articular affections, it has answered the indications where the iodine has failed. Frictions with this ointment may be made to produce pustular eruptions on the parts, if desired. To obtain this effect we use the following recipe: Sulphate manganese, 120 grains; lard, 1 ounce. For a resolving agent, 60 grains to the ounce of lard is sufficient. The salt should he intimately mixed.

HYDRATE OF QUININE.

The *Gazette Hebdomadaire*, June 11th, states that, at the meeting of the Academy of Sciences, M. Schutzenberger read a paper on some new derivatives from Quinine and Cinchonine, as follows:

While the disengagement of nascent hydrogen is going on through the agency of zinc and sulphuric acid in which Sulphate of Quinine has been dissolved, when near the end of the elimination of the gas, if an excess of ammonia be added to precipitate the salts, the oxide of zinc immediately falls, after which, in a short time, there is also deposited the new derivative from the Quinine, in the form of a tenacious, viscid moss. This is separated from the solution and re-dissolved in Alcohol, and filtered, which removes a small quantity of oxide of zinc. This solution evaporated, the residuum becomes transparent and resinous, having a slight green tinge, and presents its boric properties in a marked and full degree. It is the true Hydrate of Quinine, and has the following formula: $C^{40}\ H^{24}\ Az^2,\ 4H^0$.

[*Pacific Medical and Surgical Journal.*

MICHIGAN STATE MEDICAL SOCIETY.

The Seventh Annual Meeting of the Michigan State Medical Society will be held at LANSING, on the *Third Wednesday of January next* (19th).

Committees, please take notice, and prepare themselves.

E. P. CHRISTIAN, *Secretary.*

CORRESPONDENCE.

MESSRS HIGBY & STEARNS: *Gents*,—Within a few days we shall have out a new instrument called the "*Laryngoscope.*" It is for examining the Trachea and Bronchial Tubes, as far down as the bifocation.

The instrument is made of aluminum, the new metal which does not corrode; it is invented by GARCIA. It is from Vienna, and on board of the next steamer. On receipt we shall manufacture a number, and send you one. Would it not be well, if you would then give a description of it, being entirely novel?

Yours, &c., GEO. TIEMANN & Co.

NEW YORK, Dec. 3d, 1858.

THE

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Original Communications.

ART XLIX.—Veratrum Viride.

BY M. A. PATTERSON, M.D.

THE views presented in this article are not designed for those whose practical knowledge of the medicinal properties of Veratrum Viride may equal, or exceed, my own. I write for another class of our medical brethren, whose limited and imperfect trials of the remedy have induced them to regard it as an excessive irritant to the stomach, and, from its depressing influence on the nervous system, so dangerous, at times, as to require very great caution during its administration. My earliest experience with this medicine enables me to understand why some of our medical writers and practitioners of respectable standing in the Profession, still regard this remedy so hazardous in its action, as to deprive themselves of its use, and, by their precepts and examples, influence others to avoid a medicinal agent for

which, in the opinion of many practical physicians, the Materia Medica furnishes no equally efficient and reliable substitute.

The unexpectedly severe operation of the Veratrum in the first case in which I tried it, induced me to lay it aside for nearly a year. The patient was a boy, æt. 12 — the disease pleuro-pneumonia, attended with acute pain. After bleeding from the arm, he took a moderate dose of morphine, and, as his stomach and bowels had been recently evacuated by means of a domestic prescription, he was ordered three drops of Norwood's Saturated Tincture of Veratrum, to be repeated every three hours, increasing one drop each dose, until reduced pulse, moist, cool skin, or nausea, should occur. Called to another case, I could not repeat my visit to this boy until about an hour after he had taken the third dose, although my earlier attendance was urgently requested; and, when I again saw him I have seldom been more startled than at the marvelous change that had taken place in his symptoms during my absence. He was deathly pale; the expression of his countenance was singularly sad and anxious; his skin was covered with clammy sweat, and was cold to the touch; his pulse was but 37 to the minute. As my fingers pressed the artery, it seemed to beat slower — and slower — as if it would momentarily cease. To my anxious inquiry of "Tommy, how do you feel?" he languidly answered, "Very weak." "Any pain?"—"No." "Can you breathe easily?" — "Middling, but the breath do n't come up good. This he said with a pause, and a sigh between almost every word. In his simple, plaintive way, he truly described his feelings; for the organs of respiration and of circulation, and, indeed, the whole nervous system, had been suddenly depressed far below the standard of ease or of safety.

A chamber vessel by his bed-side was nearly filled with

such a strange compound that I could scarcely credit the statement of his nurse that he had thrown up the whole of this singular looking stuff. The stomach, liver, and lungs had disgorged mucus, bile, and blood, forming a mixture of indescribable color, of the ropy consistence of soft soap. In the course of a long practice I had frequently examined the discharges produced by ordinary emetics, but seldom had met with anything comparable with this—although we occasionally witness somewhat similar evacuations produced by lobelia, with less vicidity, however, of the ejected secretions.

The blood in the vessel was merely sufficient to variegate the mass, and was clearly of pneumonic origin.

This evidence that a powerful impression had been made upon these important organs—the nervous prostration—the pulse at 37;—in fact, the collapsed state of the patient, produced by only twelve drops of the medicine, administered, as I then supposed, at proper intervals and with due caution, induced me to believe that the Veratrum was too unsafe to be left in the hands of common nurses. Although by the aid of stimulants, and other means applicable to his condition, this boy recovered from the prostration in a few hours, and from the disease in a few days, my mind was impressed with the belief that a fourth dose of six drops would have killed him, without immediate resort to proper antidotes.

We can depend so little on the knowledge and caution of nurses to whom the sick in our country villages and towns are usually confided, that, with the startling evidence of the power of the medicine before me, I was actually afraid to leave it for another patient, during a period of several months. But, from its effects in this case, I was confident that its activity as a medicinal agent had not been misrepresented—of its safety, of course, I was not so well assured. It was evident that, as a therapeutic agent,

it must be of great practical value, provided it would not accumulate in the system like digitalis; which I feared had been the fact in TOMMY's case.

Having been long satisfied that a remedy upon which we could safely rely to control the heart's action was still a *desideratum* in medicine, and encouraged by the testimony of several respectable writers, whose early trials of the Veratrum had been less startling than mine, after quite an interval, as already stated, I ventured again to prescribe it; cautiously it is true, and carefully watching its effects in a variety of cases, and during many anxious hours. Repeated trials at length convinced me that all its essential therapeutical effects can be obtained without the least hazard to the patient, and that its alarming action in my "first case" was owing mainly to the fact, that some peculiarity of the boy's constitution rendered him remarkably susceptible to its influence. I had an opportunity of verifying this statement three years after my first trial, by prescribing the remedy for the same boy, in a less severe but somewhat similar attack. Further experience also assured me that Norwood's Tincture, as originally prepared, could not be safely given in the doses recommended by him—at least, not in this locality. And here, it may be well to remark, that saturated tinctures o powerful agents require great caution in their preparation, and an equal degree of caution in their use. Their strength, notwithstanding the utmost care, will vary in proportion to the variable activity of the articles of which they are composed. Climate, soil, and change of seasons, aside from the times of gathering, modes of curing and preservation, influence the character of plants, by increasing or decreasing their organic or inorganic constituents, and essentially modifying their active properties. This holds true throughout the entire vegetable kingdom; and although generally known, we are too apt to overlook its

important application to medical practice, when selecting our remedies.

Again: the remarkable susceptibility of some constitutions to the influence of medicinal agents, and the opposite tendency of others, will always induce a true physician cautiously to ascertain for himself the proper dose of each sample of a "solid" or "fluid" extract, "saturated tincture," or any other medical agent, no matter how carefully collected, or with what show of authority prepared. It will not answer to take for granted that different samples of a simple or compound medicine, although collected or prepared by the same pharmaceutist, or even by ourselves, will possess the exact strength, or produce precisely the same effects on different persons, or even on the same person, under different circumstances. After obtaining our remedies as pure as nature and art can make them; after learning from others, and from our past experience, what may be regarded, in general terms, as a safe dose—the necessity will still devolve upon us of graduating our doses on a cautiously experimental scale, until we have learned the actual strength of each sample of our remedy, and its effects in each case in which it is prescribed. In this way alone can we ascertain what may be truly regarded as a safe and efficient dose of any medicine.

From a disregard of this cautious mode of prescribing, much unnecessary misery has been inflicted upon the sick; and physicians are frequently called in haste to correct their own errors, and to perform the no less humiliating task of allaying, or of trying to allay, public prejudice against some of our most active remedies—remedies which, through the ignorance or carelessness of others, we find it difficult, at times, to prevail on our patients to take, without resorting to unmanly deception, but which are perfectly safe when skillfully administered.

If, then, the doses of Veratrum Viride are graduated in this cautious manner, until its effects upon each patient are clearly ascertained, it may be prescribed as safely as any other active remedy. And when prejudice against it is removed by familiarity with its proper modes of administration, and the conditions of the system in which it is indicated are also well understood, it will no longer be classed with "digitalis and other kindred articles," but will stand alone—*sui generis*—without a rival in the whole range of the Materia Medica, for controlling certain morbid conditions of the animal economy. So much, by way of encouragement to those who, like myself originally, may have too hastily condemned a remedy which I now regard as indispensable in my practice.

I trust the above remarks will not be construed as an endorsement of the notion of some of the zealous admirers of this remedy, that "Veratrum is a positive specific" for certain diseases. A specific remedy must have a specific condition of the system as a field for its successful action—a condition that will admit of the full development of whatever specific powers the remedy may be supposed to possess; and this condition is so difficult of ascertainment, even to the most experienced, that we can only know the precise effects of any remedy after it has been administered.

It is true that the uniformity with which certain medicines produce certain effects, leads us to prescribe them with a great degree of confidence—a confidence generally sustained by their remedial action, but not always; and the exceptions prove one of two things,—either that there is no such thing as a specific remedy, or that, in the present state of medical science, we have not sufficient knowledge to determine when there is such an absolute identity in a series of symptoms constituting disease, as to be certain that we have before us a repetition, in its entirety, of the previous disease, which we may have supposed was cured by a specific.

Before giving the results of my experience with the Veratrum in various forms of disease, it may be interesting to those who have not had an opportunity of consulting the original authority, to know how far we are indebted to recent investigators for our knowledge of its medicinal properties.

The name of Dr. NORWOOD has been so intimately associated, of late, with that of Veratrum Viride, as to induce many physicians still to regard him as the discoverer of the active therapeutical properties of this plant, although I am not aware that he has ever directly claimed that honor. Dr. NORWOOD is entitled to the credit of collecting quantities of the genuine plant, of preparing a highly concentrated tincture, of sending samples of this tincture all over the country, and of eulogizing it in such high terms as to attract the attention of physicians generally to the remedy, and compelling them, as it were, to give it a trial. This he has done; and for this he is entitled to the thanks of the Profession.

Since he has awakened the medical public to its importance, it is amusing to notice, here and there, a writer broadly stating that "he has been in the habit of prescribing it for many years." We give those persons no credit for their statements. Not one physician in a thousand would ever have been any wiser for their knowledge while there was not sufficient energy among them all to claim for it a proper notice in any standard medical work. How far any new therapeutical views of this medicine may have originated with Dr. NORWOOD, or any other recent writer, will be seen from the following extracts from "*Osgood's Observations on the Medicinal Properties of Veratrum Viride*," published in No. 32 of the *American Journal of the Medical Sciences*, for August, 1835:

"Professor TULLY, of the Medical Department of Yale College, whose extensive use of this article well qualifies him to judge of its medicinal

properties, and justly to appreciate its value as a remedial agent, is of opinion that as an article of medicine it ought entirely to supersede, not only the other species, but also the *Colchicum autumnale.* On many accounts it is certainly far less objectionable. In its general deobstruent effects it appears to be similar to its cogener, the *Veratrum album* as well as to the *Colchicum.* But as possessing fewer of their objectionable features, and being equally efficient as a medicine, it should have the precedence in practice; it is not liable to the same uncertainty in its operation; it does not produce uncontrollable purging in one case in doses which have little or no effect in another; it does not leave the alvine canal in an irritable condition. On the contrary, it operates with as much certainty as any article in the Materia Medica; is never cathartic, and always leaves the bowels in a good condition. It requires but a moderate degree of attention to render the operation of Veratrum Viride perfectly safe." . . . "Professor TULLY thus enumerates the active effects of this plant: 1st, Deobstruent, or alterative; 2d, Acrid narcotic; 3d, Emetic; 4th, Epispartic; 5th, Errhine. In doses as large as the stomach will bear without nausea, its deobstruent operation is manifested by a gradual and general change in the secernent and absorbent system, correcting vitiated secretions, and promoting those which are deficient. As secondary or subordinate parts of its deobstruent operation, it is *resolvent*, producing resolution of inflammations by internal use; *antipsoraic*, having the power of removing certain cutaneous affections; *chologogue*, producing an increase in the biliary secretion; *expectorant*, promoting the excretion of fluids from the bronchial membrane; *diuretic*, causing a moderate increase in the secretion of urine; *discutient*, possessing the power of dispersing tumors, from local application; and finally, *sialogogue*, producing a decided increase in the secretion of the salivary glands, both from topical and internal use. This latter operation is much more prominent in some constitutions than others." . . . "It does not appear to be directly *diaphoretic*, though diaphoresis may be produced by virtue of its emetic operation; the secretion of the skin being more of a clammy adhesive nature than is usually caused by the simple emetics. I am inclined to think it is *emmenagogue.*" . . . "Of the different operative effects of this medicine, its deobstruent or alterative is the most important. To obtain this operation fully, the nearer the strength of the circulating system approaches a healthy standard the better." . . . "Its narcotic effects are very prominent, and when the system is brought fully under its influence are manifested by faintness, somnolency, dimness of sight, dilatation of the pupils, vertigo, head-ache, impaired muscular action, hiccough, cold clammy sweat, small, unfrequent and compressible pulse. Its influence upon the circulating system is very decided. By the exhibition of full doses I have frequently known the pulse, when ranging from

75 to 80 in the minute, reduced to 35 or 40 in the course of a few hours. Its effects upon the strength of the pulse is as great as upon its frequency. For counteracting its ultimate narcotic effects, when carried to an undue extent, *I have invariably succeeded with small doses of laudanum and brandy, often repeated;* camphor and ammonia are valuable adjuvants, but far inferior to opium and brandy."

The tincture recommended by Dr OSGOOD is prepared by adding the recent bruised roots, ℥ vj. to diluted alcohol Oj. After giving formulæ for preparing a wine, an extract, and an ointment, he proceeds to name the diseases in which it was employed, with benefit, by himself or friends. Among these, the most important are gout, acute and chronic rheumatism, pneumonia, and the cough which is sometimes a protracted sequel of the disease; common and epidemic catarrh, simple idiopathic cough, asthma, non-malignant dysentery, certain forms of dyspepsia attended with a deficient or vitiated secretion of bile, and, as a discutient, in syphilitic enlargement of the unguinal glands, &c.

At the commencement of his article Dr. OSGOOD remarks, that, "from the very limited extent to which the Veratrum Viride has been used as a medicine, but few facts relative to its medicinal properties have come before the Profession." He therefore spread before the public, in a clear and lucid manner, much valuable information respecting this plant. But his interesting article—interesting now that we have learned to appreciate its importance—shared the fate of many other meritorious productions. It failed to attract the attention of the medical public to a remedy of far greater value than most of the drugs which are still lauded with stereotyped fixedness as efficient medicines, in our standard books on Therapeutics and Materia Medica.

The remarks above quoted from Dr. OSGOOD's article, contain all that was known of the medical virtues of the Veratrum Viride until Dr. NORWOOD again called the attention of the Profession to this remedy.

It is singular that a medicine recommended as safe, and

described nearly a quarter of a century ago as an agent that would reduce the pulse to 40 or 35 in a minute, should have been so long entirely overlooked in this age of unquestionable medical research and progress. It reminds us of the remark of a philosophical writer "That knowledge is a circle in motion"; and certainly the same things are every now and then turning up and down in the revolution of time.

(To be Continued.)

ART L.—Meteorological Register for Month of November, 1858.

By L. S. HORTON, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer.			Hygrometer			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	6	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	29·08	29·10	29·05	45	58	51	36	50	46	·095	·255	·245	·31	·52	·65	E.	2 E.	2 E.			
2	29·00	29·00	28·95	53	61	53	50	55	50	·321	·354	·321	·79	·65	·79	E.	2 E.	2 S.E.	4. a.m.	8.35 a.m.	1·07
3	28·98	28·98	28·96	50	56	48	47	50	46	·283	·282	·284	·78	·62	·85	S.W.	1 S.	2 S.			
4	28·90	28·90	28·95	48	58	52	44	52	47	·282	·309	·257	·72	·64	·66	S.W.	1 S.W.	2 S.W.			
5	28·80	28·74	28·72	47	55	45	42	46	40	·202	·192	·182	·62	·44	·60	S.W.	1 S.W.	2 S.W.			
6	28·80	28·72	28·70	36	54	48	33	44	40	·149	·157	·143	·70	·37	·42	S.	2 S.E.	2 S.E.	2. p.m.		
7	28·70	28·70	28·72	37	52	41	33	45	37	·136	·207	·168	·61	·53	·65	S.E.	1 S.	2 S.W.			
8	28·75	28·76	28·78	37	50	40	32	44	35	·116	·209	·139	·52	·58	·55	S.	1 S.W.	2 S.W.		8. p.m.	·64
9	28·88	28·90	28·90	33	52	42	31	44	35	·151	·183	·113	·80	·47	·42	S.W.	2 S.W.	2 S.			
10	28·90	28·92	28·92	33	45	35	30	40	32	·138	·182	·142	·74	·60	·69	S.W.	2 S.W.	2 S.W.			
11	28·98	29·00	29·00	33	37	34	30	32	32	·138	·116	·155	·74	·52	·79	S.W.	1 S.W.	1 S.W.			
12	29·05	29·02	29·00	35	42	33	32	35	30	·142	·113	·138	·69	·42	·74	E.	1 E.	1 S.W.			
13	28·90	28·95	28·95	33	36	30	28	32	27	·138	·129	·118	·74	·61	·72	E.	2 S.E.	2 S.	8. a.m.	9. p.m.	·04
14	29·00	29·00	29·00	29	35	32	25	32	30	·089	·142	·144	·55	·69	·79	S.E.	1 S.	1 S.	7. a.m.	10. p.m.	·05
15	29·00	29·00	29·01	23	34	27	20	30	25	·074	·121	·112	·59	·61	·76	S.W.	2 S.W.	2 S.W.			
16	29·01	29·06	29·08	23	33	25	20	30	22	·074	·132	·084	·59	·70	·62	W.	1 S.W.	1 S.W.			
17	29·10	29·10	29·10	33	35	33	28	32	28	·096	·142	·096	·51	·69	·51	W.	1 S.	1 S.			
18	29·10	29·12	29·12	32	36	32	30	32	30	·144	·129	·144	·79	·61	·79	S.W.	2 W.	2 W.	2. a.m.	11. p.m.	·04
19	29·15	29·15	29·15	30	36	30	26	33	28	·095	·149	·130	·56	·70	·78	W.	1 W.	1 S.W.			
20	29·18	28·98	28·90	20	36	32	18	32	30	·076	·129	·144	·70	·61	·79	S.W.	2 S.W.	2 S.W.	11. p.m.		
21	28·78	28·78	28·75	35	37	35	32	34	32	·142	·157	·142	·69	·71	·69	W.	1 W.	1 W.			
22	28·90	28·88	28·75	34	37	34	31	33	32	·139	·136	·155	·71	·61	·79	W.	2 W.	2 S.W.		10.15 a.m.	·65
23	28·60	28·64	28·65	35	38	34	32	35	32	·142	·165	·155	·69	·71	·79	S.W.	2 S.W.	2 S.W.			
24	28·79	28·90	28·90	34	38	33	32	33	31	·142	·123	·151	·69	·53	·80	W.	2 W.	2 S.W.			
25	28·90	29·00	29·00	35	38	33	32	34	30	·142	·144	·132	·69	·62	·70	W.	2 W.	2 W.	4. a.m.	3. p.m.	·30
26	29·05	29·08	29·14	33	37	34	30	34	32	·132	·157	·129	·70	·71	·61	W.	2 S.W.	2 S.W.			
27	29·15	29·12	29·10	31	36	31	28	32	29	·119	·129	·126	·68	·61	·69	S.W.	1 S.W.	1 S.W.	3. p.m.	6. p.m.	·04
28	29·10	29·10	29·08	34	36	32	30	34	30	·121	·170	·144	·61	·80	·79	S.	1 S.	1 S.E.	4. a.m.	5. p.m.	·22
29	29·18	29·20	29·18	31	35	32	27	32	29	·101	·142	·126	·58	·69	·69	S.E.	1 S.E.	1 S.E.			
30	29·20	29·20	29·20	21	33	28	19	31	26	·080	·151	·177	·71	·80	·76	S.E.	2 S.E.	2 S.E.			

Bibliographical Record.

THE HISTORY OF PROSTITUTION: Its Extent, Causes, and Effects throughout the World. [Being an Official Report to the Board of Alms-House Governors of the City of New York.] By William W. Sanger M. D., Resident Physician, Blackwell's Island, New York City; Member of the American Association for the Advancement of Science; Late one of the Physicians to the Marine Hospital Quarantine, New York, etc. New York: Harper & Brothers. 1858.

Last month we announced to our readers that we should, in the present issue, notice somewhat fully the work whose title-page we have above transcribed. In making extracts from that portion of the book pertaining to the history of Prostitution in other countries, we shall select such portions as relate to prohibitory legislation. We have no wish to spread upon our pages any portion of the history of crime, save such as will furnish useful lessons for the future. The subject is one painful to contemplate, yet we should not shrink from the labor involved or the disgust experienced in fully understanding the whole subject. Such an understanding alone will enable us to form correct opinions respecting the proper legislative course to be pursued in order to control and diminish the evil, and dry up, as far as possible, the numerous and prolific streams of disease which flow from it.

The history of the world sets forth, in a strong light, the fact that Prostitution, in some form, has ever occupied a prominent place among prevailing crimes. Ever, without

cessation, undoubtedly from the Fall, the stream has flowed on, accumulating force and violence with the concentration of society, and diminishing in power and prevalence as mankind has been more widely separated. It has its record upon the earliest pages of history; and we find MOSES, in his earlier historical writings, alluding to and recording instances of the crime. In his own official acts he promulgates law against this specific and evidently prevailing sin. Jew and Gentile, the ancient inhabitants of Egypt, Syria, and Asia Minor, of Greece and Rome, all furnish adepts in crime and debauchery. The laws of man, the thunders of Sinai, and the admonitions and pure example of the SON OF GOD have all alike failed to prevent a general and wide prevalence of the crime in question. Modern history shows legislation to be powerless for prohibition. Numerous examples prove the truth of this position. CHARLEMAGNE was discriminating in his legislation, and although his wisdom in this respect may be doubted, his severity of punishment was at least sufficiently tinctured with the "terrors of the law."

Perhaps the first authentic legislative notice of prostitution in France is to be found in the Capitularies of CHARLEMAGNE. That monarch, who seems to have seen no mischief in the system of *gynecea*, was severe upon common prostitution. He directed vulgar prostitutes to be scourged, and a like penalty to be inflicted on all those who harbored them, kept houses of debauch, or lent their assistance to prostitutes or debauchees. In other words, CHARLEMAGNE treated the same act as a crime among the poor, and as an excusable habit among the rich.

LOUIS VIII., LOUIS IX., and his son PHILIP all made efforts to prohibit Prostitution. With what success the following paragraphs will show:

LOUIS VIII. made an effort to regulate prostitution. It proved fruitless, and it was left to the next king of the same name, LOUIS IX., to make the first serious endeavor to check the progress of the evil in France. His edict, which dates from 1254, directed that all prostitutes, and persons making a living indirectly out of prostitution, such as

brothel-keepers and procurers, should be forthwith exiled from the kingdom. It was partially put in force. A large number of unfortunate females were seized, and imprisoned or sent across the frontier. Severe punishments were inflicted on those who returned to the city of Paris after their expulsion. A panic seized the customers of brothels, and for a few months public decency was restored. But the inevitable consequences of the arbitrary decree of the king soon began to be felt. Though the officers of justice had forcibly confined in establishments resembling Magdalen hospitals a large number of the most notorious prostitutes, and exiled many more, others arose to take their places. *A clandestine traffic succeeded to the former open debauchery*, and in the dark the evils of the disease were necessarily aggravated. More than that, as has usually been the case when prostitution has been violently and suddenly suppressed, the number of virtuous women became less, and corruption invaded the family circle. Tradesmen complained that since the passage of the ordinance they found it impossible to guard the virtue of their wives and daughters against the enterprises of the military and the students.

At last, complaints of the evil effects of the ordinance became so general and so pressing that, after a lapse of two years, it was repealed. A new royal decree re-established prostitution under rules which, though not particularly enlightened or humane, still placed it on a sounder footing than it had occupied before the royal attention had been directed to the subject. Prostitutes were forbidden to live in certain parts of the city of Paris, were not allowed to wear jewelry or fine stuffs, and were placed under the direct supervision of the police magistrate, whose official or popular title was *Le roi des ribauds* (the king of ribaldry). The duties of this officer appear to have been analogous to those of the Roman ædiles, who had charge of prostitution. He was empowered to arrest and confine females who infringed the law, either in their dress, their domicile, or their behavior. It was afterwards argued against the maintenance of the office of *Roi des ribauds* that it was usually filled by reckless, depraved men, who discharged its duties more in view of their private interests and the gratification of their sensuality than from regard to the public morals. Instances of gross tyranny were proved against them, and, in the absence of evidence to show that their appointment had been beneficial to the public, but little regret was felt when the office was abolished by Francis I.

To return to Louis IX. In his old age he repented of what he had done, and returned to the spirit of his early ordinance. In his instructions to his son and successor, he abjured him to remove from his country the shameful stain of prostitution, and indicated plainly enough that the best mode of attaining that end would be by re-enacting the ordinance of 1254. Philip dutifully fulfilled his father's request. Prostitution was again declared a legal misdemeanor, and a for-

midable array of penalties was again brought to bear against offending females and their accomplices. But, like many a legislative act in more modern times, PHILIP'S ordinance was too obviously at variance with public policy and popular sentiment to be carried into effect. It was quietly allowed to remain a dead letter, and, with probably few exceptions, the prostitutes of Paris pursued their calling unmolested.

At a later period still another effort at prohibition was was attempted in Paris, and with the same results:

To return to the laws regulating prostitution, it appears that a serious effort was made to put it down under the sovereignty of CATHARINE DE MEDICIS. An ordinance of CHARLES IX., dated 1560, prohibited the opening or keeping of any brothel or house of reception for prostitutes in Paris. For a short period it seems that the practice was actually suppressed, and the consequence is said to have been a large increase of secret debauchery. A few years after the passage of the ordinance, a Hugenot clergyman named CAYET proposed to re-establish public brothels in the interest of the public morals, but the authorities of his Church assailed him so vehemently that his scheme fell to the ground without having had the benefit of a public discussion, and he was himself driven to join the Romanists. In 1588, an ordinance of HENRY III. re-affirmed the ordinance of 1560, and alleged that the magistrates of the city had connived at the establishment of brothels. Ordinances of the provost followed in the same strain, and all prostitutes were required to leave Paris within twenty-four hours. An ordinance dated 1635 was still more rigorous. It condemned all men concerned in the "traffic of prostitution" to the galleys for life, and all women and girls to be "whipped, shaved, and banished for life, without any formal trial." As might be imagined, this ordinance was alternately disregarded and made to serve the purposes of private malice. Men who wished to revenge themselves on their mistresses accused them of being prostitutes; but *it does not appear that the actual supply was ever seriously diminished.*

This ordinance remained in force (nominally) until 1778, but was in fact a dead letter.

Monsieur PARENT-DUCHATELET, who entered into an investigation of all the legal proceedings against prostitutes in Paris from 1724 to 1778, informs us that, notwithstanding the law, brothels were licensed; prostitutes were seldom molested; brothels were disorderly; punishment was dis-

cretionary with the magistrates; punishments were light; and that whole streets were occupied by prostitutes. Then followed the ordinance of 1778.

Probably with a view to enlarge the discretion of the magistrates, a new ordinance was passed in 1778, renewing, in peremptory language, the prohibitive provisions of the enactment of 1560. This ordinance, which bears the name, and probably emanated from the office of LENOIR, the police magistrate, declares that no public woman shall hereafter try to catch (*raccrocher*) men on the wharves or boulevards, or in the streets or squares of Paris, under penalty of being shaved, whipped, and imprisoned; that no householder shall let his house, or any part thereof, to prostitutes, under penalty of five hundred francs fine, and that boarding-house keepers shall allow no man and woman sleep together without seeing their marriage contract.

The most curious feature in connection with this ordinance was the fact that it was not intended or held to interfere with established brothels, which the government continued to license as before. It was intended to affect private prostitutes only. We may judge of its success from the general statement that, soon after its passage, the streets and squares were thronged with prostitutes. No woman or modest person could walk the garden of the Tuileries at night. Lewd women showed themselves at their windows in a state of nudity, and shocked public decency still more glaringly by their postures in the streets. It was, in fact, so complete a failure, that two years after its establishment it was practically repealed by a new police regulation.

In 1791, the whole body of the legislation of the monarchy was abolished, and in its stead the republican Legislature enacted a code which was the only law in force in France. That code making no reference to prostitution, it was inferred by lawyers that women had a natural right to prostitute their bodies if they chose, and accordingly the traffic became open and free. The consequence of this was a tremendous development of the vice. Prostitutes established themselves in every street, and monopolized every public place. Paris became scarcely habitable for modest women. An outcry against this monstrous state of things reached the Executive Directory in 1796, and that body sent a message to the Council of Five Hundred, begging them to legislate on the subject. The message was clear and able, calling upon the council to define "prostitute," and suggesting that "reiterated offenses legally proved, public notoriety, or arrest in the act," appeared to constitute proof of prostitution. It seemed to call for penalties, in the shape of imprisonment, on women exercising this calling. But neither this suggestion, nor a subsequent project of the same character was ever carried into effect. NAPOLEON swept the Palais Royal of the prostitutes who had made it their head-quarters, and

broke up some of the greatest brothels, by harrassing their inmates in various ways, but made no law on the subject.

In 1811, M. Pasquier, Prefect of Police, drafted a bill for the regulation of prostitutes, but it never went into effect, and the imperial ordinance drawn by the prefect has been lost. Five years later, M. Anglis, Prefect of Police under Louis XVIII., attempted the same thing with no better success, the law officers of the crown seeming to have supposed that the general provisions of the articles of the code on public decency and "outrages upon public morality" covered the particular case of prostitution. The last efforts that were made in France to obtain a law for the regulation of prostitution were 1819 and 1822, when the ministry seriously thought of settling the whole matter by a royal declaration. These endeavors had the same fate as the former ones, leading to no result.

A general impression has prevailed of late years that the moral sense of the public would be shocked by any legislative act licensing so great a sin as prostitution; and as the government has assumed, without constitutional warrant, the control and regulation of prostitutes, and has exercised as full authority as it could have done had there been a law on the subject, the deficiency has hardly been felt. A conscientious official has occasionally experienced qualms of conscience at acting without legal warrant; the government has sometimes been frightened by a menace of resistance from some bold lawyer, but no trouble has ever actually arisen, and custom now gives to the police regulations the force of law.

In Hamburg we have also had prohibitory efforts made. Our author says:

In the seventeenth century a different course of action was adopted, and, in place of toleration and limitation of brothels, strict laws were made in reference to visiting suspected places, and the custody of persons of bad character. The women-houses were pulled down and the women expelled; the criminal records contain frequent instances where the pillory or exile was inflicted for the crime of prostitution.

In 1764, and again in 1767, the Hamburgers enacted very severe laws against offenders, under the title of "*delicta carnis*," by which both sexes were subjected to pains and penalties, but men seem to have been allowed to clear themselves on oath. The officers of justice were directed to make domiciliary visits in search of offenders, and the pillory, bread and water, the House of Correction, or banishment, are the penalties threatened on habitual evil-doers.

These regulations, however, were impotent against the

influence of French immigration, which was caused by the fall of the monarchy.

Places of entertainment and sensual gratification arose in all directions, the homely simple manners of the *Vaterland* were subverted, and a less rigid line of conduct took their place. In the words of a writer of the day: "Our eating-houses were metamorphosed into restaurants; our dancing-rooms into saloons; our drinking-shops into pavilions; our cellars into halls; our girls into demoiselles; in short, we were thoroughly polished up by the immoral shoal of immigrants. Quick and unrestrained strode the crowd over our pleasant streets, and modesty and respectability fled with averted faces, to the sorrow of the few good men."

The name *demoiselle* was granted to many of the common women, their places of resort being called "Ma'amselle houses." In those days the Hamburgers saw, with astonishment, houses fitted up and furnished in the style of mansions, with costly upholstery and cabinet-work. — (*Hamburg and Altona Journal*, 1805, iii. 50). Among the women were the *femmes entretenness*, who received their friends at certain hours, and whose favors were dispensed for a Louis d'or or a ducat. They frequented the first and second boxes of the German and French theatres, and drove through the public streets in handsome carriages. Some of the keepers of this class of houses had physicians in their pay, whose services were always available by the inmates. *Petits soupers* were given here, and sometimes a ball took place.

These were literally the aristocracy of prostitution. The second, third, and fourth grades resided in inferior streets or in the suburbs, differing in their attractions according to the rank which they assumed, but all equally shameless and unequivocal in their conduct and appearance.

Notwithstanding this rapid spread of prostitution, the police of the city can not justly be charged with neglect of duty, any public outrage being followed by condign punishment. At one time a whole ship-load of nymphs of the *pavè* was dispatched to the colonies; at another a raid was made on the most conspicuous houses, some of the inmates alarmed into decency of conduct, and the incorrigible publicly exhibited in the streets, decorated with inscriptions signifying their offenses. The voice of the few was powerless against the corruptions of the many.

Such a state of public morals could not long exist without an attempt at reform. Prohibition being ineffectual, regulation and control were attempted, finally resulting in essentially the present system which prevails in Hamburg.

In 1820, "the previously existing police regulations against prostitutes being proved very ineffectual, insomuch that they infest the public streets and ways, not only to the offense of decency and propriety, but to the endangerment of public order and safety," it was ordered that the regulations should be be renewed, and additional powers were given to the police to enforce the registry of individuals coming within the scope of the law.

At this time we find some information as to the number of prostitutes, who are stated to be about five hundred, chiefly foreigners, and their receipts from their patrons, but we have no guide to the number of women who pursued their calling privately, which must have been large.

The civic administration of the Senator HUDTWALCKER is marked by earnest endeavors to control prostitution and restrict it within known bounds. Some of his views on the subject met much opposition. He wished to close up one end of a notorious street, and to wall up the back windows, stationing a watchman constantly at the end left open. After great personal attention to the subject, he published the result of his experience. — (*Vorschriften die Bordelle und öffentlichen Madchen betreffend: Hamburg*, 1834.) His principles are those upon which the present police regulations of Hamburg are based. He says:

"All brothel-keepers and girls should be distinctly made to understand that their infamous and ruinous calling is only *tolerated*, not permitted, or authorized, or even well wished. Still less can they feel that they have any right to compare themselves with worthy citizens as though their calling, because an impost is levied on them, can be put on a level with other permitted callings. They must remember that this impost is raised solely to defray the necessary cost of police supervision, and of the cure of maladies brought on the common women by their own profligate course of life."

"2. Public or private brothel-keeping to be notified to the police; the regulations to be read over and subscribed; offenders to be punished by bread and water, and the House of Correction. If an uninscribed woman have the venereal disease, the fact is *prima facie* evidence of prostitution."

"3. Change of residence to be notified, under penalty."

"4. The concession may be withdrawn by the authorities at their pleasure."

"5. Houses of accommodation will only be tolerated.

(*a.*) where the landlord is inscribed;

(*b.*) where a resident girl is inscribed;

(*c.*) where an inscribed girl is the party using it."

"6. Women from abroad, kept by single men, must obtain the police residence permission, and should pay the tax for the first class, without, however, being subject to medical visits. They have the

right of the free use of the General Infirmary. Should such a girl be proved to have intercourse with several men, or, being venereal, to have infected others, she should be treated as a public woman."

7, 8, 9. Prescribe the identification of individuals subscribing; the details of their place of birth; the consent of parents when living; also, "That any brothel-keeper detaining an innocent girl on false pretences shall be punished with fine and imprisonment, and the concession be withdrawn."

"10. Female servants or relatives of brothel-keepers, residing with them, to be over twenty-five years of age."

"11. No prostitute is suffered to keep children of either sex over ten years of age; even their own must be brought up elsewhere if she continues her calling."

12. Prohibits solicitation of passengers.

"13. No common woman to be in the streets after eleven at night without a male companion."

14. Limits the places to which prostitutes may resort.

"15. Young people, under twenty years, not to enter a brothel."

"16. No music or gaming in brothels, nor liquor-selling, except by special permission."

"17. Noise and uproar in brothels punishable."

"18. No brothel-keeper or inscribed woman to permit extortion or violence to a customer, but they may detain persons who have not paid. Thefts or foul dealing prohibited; the landlord *prima facie* responsible."

"19. No compulsion or violence of the woman by the keeper, nor by guests with his cognizance."

"20. A woman wishing to return to a virtuous life at liberty to do so, notwithstanding any keeper's claims. If they disagree as to such claims, the police to settle them, but in no case has the keeper any lien on her. Nevertheless, this privilege not to be abused. If a woman returns to her evil courses, the keeper's claims on her revive, and she may even be punished. Limitation according to the class of a woman, of the right of borrowing money."

"21. If parents or relatives will undertake the reclamation of a prostitute, the police will compel restitution of her person, irrespective of the keeper's claims, or even of the woman's own refusal."

"22. A woman changing her residence, and disputing any settlement with the keeper, can have the same rectified by the police."

"23. The woman to be subjected every week to medical visitation. No woman, during menstruation, or with any malady in the sexual organs, to receive visits from a man. No woman to be approached by a man diseased, or reasonably suspected of disease. To this end, a statement of the signs of venereal diseases to be furnished."

"24. The orders of the public physician are imperative, and must be strictly observed. Want of personal cleanliness increasing the virulence

of syphilis, the directions of the physician on this matter to be imperatively followed."

"25. The medical officer to report the result of examination to the police, and to enter the same in a book to be kept by each woman, to be produced on demand."

"26. A woman finding herself to be venerally infected to report either to the keeper or the police; in other illness to report to the medical officer, who will direct her course of treatment at home, or, in venereal and infectious cases, at the hospital. In cases of pregnancy she is to report herself to the medical officer."

"27. A keeper punishable for the disease of a man in his house, and liable for the charges of cure."

The remaining sections relate to the collection of the tax; the penalties for violation are fine and imprisonment.

Having thus briefly sketched the progress of legislation on prostitution in Hamburg, based upon the principle that "prostitution is a necessary evil, and, as such, must be endured under strict supervision of the authorities," it seems an appropriate place to copy the following remarks of an eminent local writer:

"That brothels are an evil no one can deny; still, the arguments against the sufferance of brothels are, except as to that incontestable truth, no answer to the 'necessity,' which is the very *gist* of the thing, and which necessity is based on the uncontrollable nature of sexual intercourse, and on the circumstances of our social condition."

"The sufferance of brothels is necessary,

"1. For the repression of profligacy, of private prostitution as well as of its kindred crimes, adultery, rape, abortion, infanticide, and all kinds of illicit gratification of sexual passion. The latter cases occur very rarely with us. Of Pæderasty or Sodomy we find but few instances; and of that unnatural intercourse of women with each other, referred to by PARENT-DUCHATELET as common among the Parisian girls, we find no trace."

"The sufferance of brothels operates to the suppression of private prostitution, in so far as brothel-keepers and the 'inscribed' women are, for their own interest, opposed to it, and are serviceable to the police, in its detection. Unquestionably, private prostitution is an incalculably greater evil than public vice.

"2. On grounds of public policy in regard to health. It is quite erroneous to suppose that these legalized brothels contribute to the spread of syphilitic maladies. This should rather be imputed to private prostitution which would ensue on the breaking up of the brothels, and from which that medical police supervision that now limits the spread of infection would, of course, be withdrawn. The experience of all time prove that, by means of secret prostitution, the intensity and virulence of venereal disorders have been aggravated, to the multiplica-

tion of those appaling examples familiar to every medical reader, and which cause one to shudder with horror; while numerically, disease and its consequences have been carried into every class of society. It is precisely our knowledge of these very facts which has induced the suffrance, or, rather, the regulation of these brothels."

"3. *Suppression is* ABSOLUTELY IMPRACTICABLE, inasmuch as the evil is rooted in an unconquerable physical requirement. It would seem as if the zeal against public brothels implied that by their extinction a limitation of sexual intercourse, except in marriage, would be effected. This is erroneous, for reliable details prove that for every hundred brothel women there would be two hundred private prostitutes, and no human power could prevent this. In a great city and frequented seaport like Hamburg, the hope of amending this would be purely chimerical."

Thus much for Hamburg legislation, and the sound arguments in its favor.

Then follow certain statistics, from which the following facts appear, showing the hygienic effect of control:

From the facts we have quoted, it is evident that the virulence of syphilitic affections among the registered women is unquestionably mitigated. "*Tertiary syphilis is rare*"; secondary syphilis but occasional, while primary forms have lost their malignity. "There is a marked aggravation of the disease during the summer months, when a considerable influx of strangers takes place. This was particularly observable after a great fire in 1842."

The mildness of the disease, and its easy control, can be ascribed to nothing but the weekly medical supervision. The women are visited at their own houses, and any reluctance or refusal renders them liable to punishment.

Contrasted with this state of affairs, we have the severity of syphilis among unregistered women, who conceal their disease as long as they can. Of those arrested, many are found to be diseased in an aggravated form. In the year 1845, of 138 unregistered women sent to prison, 43 had syphilis, or nearly one-third of the whole. PARENT-DUCHATELET says this proportion is exceeded by the same class in Paris, where the infected amount to one-half the illicit prostitutes.

Berlin has witnessed the reverse of this showing. A fierce discussion between those who were not able to appreciate the influence of syphilis upon the innocent portion of community, and who could only see the hideousness of the crime, on the one hand, and the advocates of toleration, on

the other, resulted, in 1845, in an effort at suppression. How successful that effort was, witness the following:

The *Vossicher Zeitung* (July, 1847), says:

"Well meant but altogether erroneous is the proposition that brothels can be dispensed with in times of general intelligence and education, and that now this relic of barbarism can be done away with. Already, only two years after the closing of the brothels, this deception has been exploded, and we have bought experience at the public cost. The illicit prostitutes, who well know how to escape the hands of the police, have spread their nets of demoralization over the whole city; and against them, the old prostitution houses, which were under a purifying police control in sanitary and general matters, afforded safety and protection."

In another local paper we find:

"Prostitution, which had previously kept out of sight in dark and retired corners, now came forward boldly and openly; for it found protection and countenance in the large number of its supporters, and no police care could restrain it. The prostitutes did not merely traverse the streets and frequent the public thoroughfares to hunt their prey, thereby insulting virtuous women and putting them to the blush they crowded the fashionable promenades, the concerts, the theatres, and other places of amusement, where they claimed the foremost places, and set the fashion of the hour. They were conspicuous for their brilliant toilettes, and their example was pre-eminently captivating and and pernicious to the youth of both sexes."

From a work called "Berlin," by Sass, we obtain the annexed view of

PUBLIC LIFE IN BERLIN.

"No city in Germany can boast of the splendid ball-rooms of Berlin. One in particular, near the Brandenburg gate and the Parade-ground, is remarkable for its size, and presents a magnificent exterior, especially in the evening, when hundreds of lamps stream through the windows and light up the park in front. The interior is of corresponding splendor, and when the vast hall resounds with the music of the grand orchestra, and is filled with a gay crowd rustling in silks or satins, or lounging in the hall, or whirling in the giddy waltz, it is certainly a scene to intoxicate the youth who frequent it in search of adventure, or to drink in the poison of seductive and deceiving, although bright and fascinating eyes. Should the foreigner visit this scene on one of its gay nights, he may get a glimpse of the depths of Berlin life. Many a veil is lifted here. This splendid scene has its dark side. This is not respectable Berlin. This whirling, laughing crowd is frivolous Berlin, whether of wealth, extravagance, and folly, or of poverty,

vice, and necessity. The prostitute and the swindler are on every side. Formerly the female visitors were of good repute, but gradually courtesans and women of light character slipped in, until at length no lady could be seen there. And the aforesaid foreigner, who lounges through the rooms, admiring the elegant and lovely women who surround him in charge of some highly respectable elderly person, an 'aunt,' or a '*chaperone*,' or possibly in company with her 'newly-married husband,' seeks to know the names and position of such evident celebrity and fashion. 'Do not you know her? Any police officer can tell you her history,' are the replies he receives. There is a class of men at this place who perform a function singular to the uninitiated. These worthies are the 'husbands' of the before-mentioned ladies. They play the careless or the strict cavalier; are Bluebeards on occasion; appear or keep out of sight, according to the proprieties of the moment."

Another part of Dr. Sass's work contains a truly horrid picture of the immorality of the city. We transcribe it, in conclusion of this branch of the subject:

PRIVATE LIFE IN BERLIN.

". . . Let us enter the house. The first floor is inhabited by a family of distinction; husband and wife have been separated for years; he lives on one side, she on the other; both go out in public together; the proprieties are kept in view, but servants will chatter. On the second floor lives an assessor with his kept woman. When he is out of town, as the house is well aware, a doctor pays her a visit. On the other side of the staircase lives a carrier, with his wife and child. The wife had not mentioned that this child was born before marriage; he found it out; of course they quarrel, and he now takes his revenge in drunkenness, blows, and abuse. We ascend to the third floor. On the right of the stairs is a teacher who has had a child by his wife's sister; the wife grieves sorely over the same. With him lodges a house-painter who ran away from his wife and three children, and now lives with his concubine and one child, in a wretched little cupboard. On the left is a letter carrier's family. His pay is fifteen thalers (twelve dollars) a month, but the people seem very comfortable. Their daughter has a very nice front room, well furnished, and is kept by a very wealthy merchant, a married man. Exactly opposite there is a house of accommodation, and close by there is a midwife, whose sign-board announces 'An institute for ladies of condition, where they can go through their confinement in retirement.' I can assure the reader that in this sketch of sexual and family life in Berlin I have 'nothing extenuated, nor set down aught in malice.'"

In estimating the effects of the suppression of brothels, it will be necessary to take medical testimony. In Dr. Loewe's pamphlet, "Prostitution with reference to Berlin, 1852," we find:

"In vain the Charité, after the ordinary wards were full of venereal patients, set aside other parts of the building. The patients were still poured in from the houses of detention, until, at length, the directors of the Charité refused farther admission, the consequence of which was a long and angry correspondence between them and the police. The Minister of the Interior interfered, and ordered more accommodation for the Charité. This was done, but the new wards were soon filled with venereal females; the patients exceeded the accommodations, and at last it was found necessary to take the Cholera Lazaret for syphilitic cases. Against this arrangement the magistracy of Berlin remonstrated that the present influx of venereal patients must be regarded as the inevitable, natural consequence of the abolition of the brothels; that this abolition had not originated with them, therefore they were not bound to provide for it."

Dr. Behrend, to whose work we have already alluded, gives much statistical information, from original documents, showing the results of suppression. He says:

"In 1839, out of 1200 women, brought to punishment for begging and similar offenses, there were about 600 common unregistered prostitutes. In 1840, the period of reducing the number of brothels, there were 900 such women. In 1847, a year after their suppression, there were 1250 notorious prostitutes. Those, in the opinion of the police, constituted but a portion of those who practiced prostitution, but yet had an apparent means of living. Behind the Königsmauer the traffic is carried on worse than formerly, while the place itself is the scene of disorder and irregularity, which used not to be under the former system. These offenses can not be punished, owing to the difficulties of technical proof which must always exist. The police have done what is possible by continually patrolling the streets, and arresting openly objectionable characters, and even those who are informed against as being diseased, but they can do no more. *The prostitution which was formerly confined within a limited district is now spread over the whole town.*"

Respecting the influence of the withdrawal of toleration upon the public health, Behrend concludes there is a greater amount of syphilis. He gives the following list of cases in the Charité:

Year	1840	. . . .	Females,	757	. . . .	Males,	——
"	1841	. . . .	"	743	. . . .	"	——
"	1842	. . . .	"	676	. . . .	"	——
"	1843	. . . .	"	669	. . . .	"	——
"	1844	. . . .	"	657	. . . .	"	741
"	1845	. . . .	"	514	. . . .	"	711
"	1846	. . . .	"	627	. . . .	"	813
"	1847	. . . .	"	761	. . . .	"	894
"	1848	. . . .	"	835	. . . .	"	979

He also investigated the average time each patient was under treatment, as tending to show the malignity of the disease, and reports:

Year 1844,	men,	$21\frac{5}{6}$	days;	women,	$31\frac{2}{3}$	days;	both	sexes,	$26\frac{3}{4}$	days.
" 1845,	"	$26\frac{6}{7}$	"	"	$42\frac{8}{9}$	"	"	"	$34\frac{2}{3}$	"
" 1846,	"	$30\frac{1}{2}$	"	"	$51\frac{1}{2}$	"	"	"	$40\frac{7}{8}$	"
" 1847,	"	$34\frac{1}{9}$	"	"	$43\frac{2}{3}$	"	"	"	$38\frac{2}{3}$	"
" 1848,	"	$32\frac{1}{3}$	"	"	$53\frac{1}{6}$	"	"	"	$43\frac{1}{2}$	"

These facts are corroborated by the registers of the Military Lazaret. From returns made to the police department by Herr Lohmeyer, General Staff Physician, it appears there were in the garrison

In 1844 and 1845, 735 syphilitic cases. Of these

633	cases of primary syphilis	required	17,916	days of attendance;
102	" secondary	"	"	4,947	"	"
735	"	"	"	22,863	"	"

In 1846, and the first six months of 1847, there were 618 cases:

501	cases of primary syphilis	required	17,788	days of attendance;
117	" secondary	"	"	5,213	"	"
618	"	"	"	23,001	"	"

Dr. Behrend states, as the results of conversations and communications with many of the medical profession, and of his own experience:

"1. That in the last four years there are more cases of syphilis.

"2. That, in consequence of the increased facilities for communication, the disease has spread to the small towns and villages.

"3. That it has been introduced more frequently into private families.

"4. That the character of the disease is more obstinate, thereby operating severely on the constitution and on future generations.

"5. That, since the abolition of the toleration system, unnatural crimes have been much more frequently met with."

We are happy, however, to inform our readers that a better state of things at present prevails in Berlin. In 1851 the edict of suppression was repealed. The following notice of that repeal, and of the regulations adopted, we here extract:

The experiment of "crushing out" had been fairly tried. The king and his ministers lent all their energy and inclination to the task, and, after six years' attempt, it was admitted to be a futile labor, and entirely abandoned. Berlin will have to suffer for years from the onsequences of this misdirected step, for it is an easy matter to abandon

all control, but an exceedingly difficult one to regain it. Now that the police are reinvested with their former authority, they strive, by every possible means, to repair the evils of the interregnum. Their most recent regulations are embodied in the following

DIRECTIONS FOR KEEPERS PERMITTED TO RECEIVE FEMALES ABANDONED TO PROSTITUTION INTO THEIR HOUSES.

"1. The duties hereby imposed upon the keeper are not to be taken to relieve him from the ordinary notices to the police respecting persons taken into his house or employment.

"2. The keeper must live on the ground floor of his house, near the outer door, in order to watch all entrance into his house, and to be ready to interfere in case of tumult or uproar therein.

"3. The keeper has the right to refuse any person admittance into the house. For preservation of order and quiet in, and in front of his house, the keeper will have the requisite assistance from the police.

"4. Dancing and music in the house are strictly forbidden; billiards, cards, and other games are also forbidden, whereof the keeper is to be particularly watchful.

"5. In order to avoid quarrels with visitors, the keeper must affix, in each of his rooms, a list of prices of refreshment, to be previously submitted to the undersigned commission for approval.

"6. The agreement which the keeper enters into with the females living in his house must be also communicated to the undersigned commission. In case of dispute as to this agreement between the keepers and the females, both are to address themselves to this commission.

"7. Each of the females receives a printed list of directions, which she is strictly to follow. It is the duty of the keeper to make himself well acquainted with these directions, and to see that they be followed.

"8. It is for his own interest that the keeper should keep his house in order and quiet, and should also give attention to the cleanliness and health of the female inmates. Each of these is ordered to obey him in every thing relating thereto, and should any of them be contumacious, the keeper is to appeal to the police commissary, or to the undersigned commission, but he can not himself chastize or use force with any female.

"9. If the keeper know or suspect any female to be sick with venereal disease or itch, he must give notice to the visiting medical officer, or to the undersigned, and the person is to be kept apart until she has been examined. In default of this notice, or even of the privacy required, the keeper it liable to the same punishment as the law inflicts for being knowingly accessory to illness of other people.

"10. If the keeper knows or suspects that any of the females

are pregnant, he must give notice thereof to the visiting medical officer. Neglect of this involves the punishment of concealing pregnancy.

"11. Every person is to be visited thrice a week by a medical officer, on appointed days and hours; and, besides, according to the order of the commission, at hours not appointed. These visits the keeper is to facilitate in every way.

"12. For these visits, indispensably requisite for the health of the female inmates, the keeper is to provide beforehand,

"(*a.*) An examination chair, of an approved pattern.

"(*b.*) Two or three specula.

"(*c.*) Several pounds of chloride of lime.

"(*d.*) For every female, besides necessary linen, her own washing apparatus, her own syringe, and two or three sponges.

"13. The keeper is strictly charged that he cause the women to observe decency and propriety whenever it is allowed them to walk abroad in the streets, or to take exercise in the open air for the sake of their health. If any of these persons require to take any such necessary walk, the keeper can not refuse her, but must provide a suitable male companion, who is to take charge of her. She is to be respectably and decently clad, is not to stand still on the streets, nor to remain out longer than is requisite for completing her business or for proper exercise.

"14. In case any woman manifests a fixed desire to give up her profligate mode of life, the keeper shall make no attempt to turn her from it, and can not, even on account of sureties he may be under, hinder her from carrying out her determination. Moreover, the keeper must present the woman with apparel suitable to a woman of the serving class, in case she should be destitute of the same."

15. Provides for change of keepers.

"16. The keeper is expected to give all assistance to the commission in their efforts to lead such persons back to an honest livelihood; especially so in their endeavors to suppress illicit prostitution, and to detect the sources of venereal infection."

We have thus followed our author through a portion of his work; and, in making the extracts, we have, we think, shown that the advocates of Legalization for the Sake of Control occupy the correct ground. Were the fruits of the sin reaped only by those who transgressed, the case would be different. But such is, unfortunately, not the case. The innocent portion of community frequently experience the blighting effects of a disease originating in sin, without even dreaming its source. The pure and unsus-

pecting maiden, blessed with health, contracts a marriage apparently advantageous, and wonders why her offspring are so frail, and so early succumb to disease; and if, perchance, any of her children attain maturity, it is only to propagate a diseased constitution to offspring. Syphilis is the hotbed of scrofula, and from this prolific source flow out multiform diseases. Could we establish a "great gulf" between pure constitutions and those tainted in the least degree with syphilis, we would accomplish more for health than any medication is capable of effecting. Human life would be prolonged and human enjoyment would be enhanced.

We here take leave of our author for the present. In a future No. we shall again recur to the subject, and present some interesting facts pertaining to Prostitution in New York. G.

PROCEEDINGS OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, at the Seventh Annual Meeting, September, 1858, in Washington, D. C.

THE Executive Committee of the American Pharmaceutical Association has completed the most onerous of its duties in the publication of the proceedings of that body. It forms a volume of nearly 500 pages—about as much as the combined proceedings of the six previous meetings—showing an industry and activity in a young organization in which the business element enters so largely, which we think is quite creditable.

A few sentences, quoted from the Address of the retiring President, CHARLES ELLIS, regarding the history and objects of this organization, we think will be of interest to the uninformed reader.

"It was in the Autumn of the year 1851 (October 15th, 1851), in pursuance of a call issued by the College of Pharmacy of the city of New York, that a convention of delegates from some of the Colleges

of Pharmacy assembled in New York, to take into consideration subjects of deep interest to our Profession. The first incentive to action evidently flowed from the inequality in the practical working of the Drug Law, then recently passed by Congress.

"A desire to strengthen the hands of the General Government in excluding from our ports sophisticated and inferior articles of the Materia Medica, as well as to establish standards of quality and strength for imported drugs and chemicals, for the guidance of the Special Examiners, mainly led to this first organization.

"The delegates from the Philadelphia College of Pharmacy having been instructed by that body to propose an organization upon a more comprehensive basis, this Convention adopted a preamble and resolutions, setting forth that the advancement of the true interests of the great body of Pharmaceutists throughout our country is a subject worthy of earnest consideration; that in their intercourse among themselves, with Physicians and the Public, they should be governed by a code of ethics, calculated to elevate the standard and improve the practice of our art.

"The establishment of Schools of Pharmacy, a more extended intercourse between the Pharmaceutists of the several sections of the Union, and the forming of Associations for mutual protection, and further education and improvement of their assistants, was strongly recommended.

"They resolved, 'That a Convention be called, consisting of three delegates each from incorporated and unincorporated Pharmaceutical Societies, to meet at Philadelphia, on the first Wednesday in October, 1852, when all the important questions bearing on the Profession may be considered, and measures adopted for the organization of a National Association, to meet every year.'" . . . .

"The initiatory steps thus taken in the city of New York, led to most important results. The following year, in obedience to the call, which was widely published, delegates from Massachusetts, Connecticut, New York, Pennsylvania, Maryland, Virginia, and Ohio, assembled in Philadelphia, on the 6th day of 10th month (October), 1852.

"It was here that the corner-stone of the present organization was laid. The Assembly of Delegates thus convened in Philadelphia, was merged into the American Pharmaceutical Association. A Constitution was formed, and adopted after a mature deliberation on the part of the gentlemen assembled, representing, as they did, most of the Pharmaceutical Societies from seven different States. That Constitution, subsequently modified and improved, with its Preamble and Code of Ethics, constitutes the Magna Charta of our National Association." . . . .

"I need not say to you that this voluntary action on the part of the Pharmaceutists of the Union, has already done much, and is destined still further to revolutionize the condition of Pharmacy in this

country. It has put its seal upon the hydra-head of Quackery. It is aiding, by the general diffusion of knowledge, and by encouraging the formation of local Pharmaceutical Societies, firmly to establish a bond of union between the educated and intelligent Pharmaceutists and Druggists throughout the Union."

The Association, thus organized, has met annually, and now, from its size and respectability, promises to exercise an excellent and powerful ethical influence upon the pharmaceutical body of the United States. Moreover, the yearly increasing size and value of its proceedings, the contributions of members, evince resources from which we may expect to draw, each year, an aggregate of information truly valuable, and of vital importance and interest to the rapid advance of Pharmaceutical knowledge.

It is impossible, in a review of these Proceedings, for want of space, to give more than a passing notice of the most important essays.

Professor Proctor's Syllabus is mentioned upon another page.

The Report of the Committee upon the Revision of the Pharmacopœia contains a host of suggestions, additions, and alterations, to be made in the national standard at its revision in 1860. Many of these are of value to the Profession at large, more so, we think, than to the final Revision Committee.

In connection with this Report we must notice an able volunteer paper by Dr. Ed. R. Squibb, of New York, directed especially to the Revising Committee of 1860, and embodying a series of observations and suggestions, faithfully illustrating the Doctor's indefatigable industry and close study in the laboratory for half a lifetime. This paper received a special vote of thanks from the Association.

We may mention, among the Reports and Essays, those of Dr. Robert Stabler, on Podophyllum; Prof. Wm. Proctor,

upon Cerasus Scrotina; EDWARD DONELLY, M. D., upon the Brazil Nut, and its Application to Pharmacy; ROBERT BATTY, on Maranta Arundinacea; and SAMUEL N. COLCORD, on the Professional Intercourse between the Apothecary and Physician,—as possessing especial interest to Medical Men.

Among the several papers presented by the writer, those upon the Medical Plants of Michigan, and upon the Peppermint Plantations of Michigan, will perhaps be of interest to our readers generally.

The total number of reports and essays amount to thirty-seven, and treating, as they do, upon as many different subjects, the book contains a store of information making it worth many times its cost to every apothecary of our land.

The volume contains many typographical errors, incident to its being hurried through the press, none of which, however, detract from its real value.

Those wishing to obtain it can do so by addressing S. S. GARRIGUES, Chairman of the Executive Committee, 108 North Fifth street, Philadelphia. The price of the volume in paper, with postage, is $1.00; in boards, $1.25.

F. S.

SYLLABUS OF A COURSE OF STUDY, Intended as an aid to Students of Pharmacy. By WILLIAM PROCTOR, Jr.

We have perused, with much satisfaction, a pamphlet with the above title, sent us by the author, in advance of its publication in the Proceedings of the American Pharmaceutical Association, it being a report presented to that Association at its late meeting.

We deem this Syllabus to be of the greatest value to young men designing to enter the business of Pharmacy; for to such as are unable to spare the time and means to attend a regular course of instruction at any of the Colleges or Schools of Pharmacy, it points out, in terse terms,

a systematic method for them to pursue in manipulatory experiment and in the prosecution of study.

The author modestly informs us that this Syllabus is suggestive of subjects for study, rather than a source of information, yet we find in it many hints and facts that are not treated upon in any of our standard works, and which, in no slight degree, enhance the value of the Report.

We are not informed whether the Executive Committee of the Association intend the general distribution of this pamphlet, but as it will form a part of the forthcoming Proceedings, it will prove, in that form, worth many times its cost, to the student of Pharmacy. F. S.

CONCENTRATED ORGANIC MEDICINES. By GROVER COE, M. D. Published by B. Keith & Co., New York.

AN ably written treatise, in which the author, after presenting a strong array of facts, of long conceded force, proving the unscientific nature of many of the ordinary forms of pharmaceutical preparations, proceeds upon an ingeniously constructed hypothesis to assert that certain concentrated organic medicines, or, as he more distinctly terms them, *combined proximate medicinal constituents of indigenous and foreign plants*, as made by Messrs. B. KEITH & Co., of New York, have reached the acme of perfection in Pharmaceutical products, and are as "*positive* and *definite* in their character as human skill can make them."

With a modesty not inconsistent with the character of the work, it leaves the detailed history of the various chemical processes involved in the preparation of these medicines, entirely out, stating that the book is intended for professional use, rather than as a text-book for chemists.

It is to be regretted, for the sake of the gentlemen interested in the circulation of this new work on materia medica, that the Medical Profession, unlike the credulous

Public, are not prepared to swallow *positive* and *definite* medical agents without knowing something about those chemical processes.

Dr. Grover Coe's work is an elaborate puff for the preparations of B. Keith & Co.; and to all the customers and consumers of their *positive* medical agents, we say buy it. F. S.

THE MODERN PRACTICE OF MIDWIFERY. A course of Lectures on Obstetrics. By Wm. Tyler Smith, M. D., Member of the Royal College of Physicians; with Copious and Practical Annotations, by Augustus K. Gardner, A. M., M. D., &c., &c. Illustrated by 212 engravings. New York: Published by Robert M. DeWitt.

In calling the attention of our medical readers to a new and standard work on Obstetrics, considered both as a science and an art, we ought, by asserting its claim to professional approbation, to show in what way it fills up a preëxisting hiatus in medical bibliothekes, or in virtue of what qualities it proposes to make room for itself, by displacing its predecessors or cotemporaries. This labor we have not the time to perform before the present No. of this Journal passes through the press, as our duty to the Publisher, who has, by his courtesy, placed us under obligations to give the earliest notice of this work, which bears his imprint, compels us to defer the discharge of our duties to our readers to another occasion.

We deem it sufficient for the present, to say of Dr. A. K. Gardner's edition of Dr. Wm. Tyler Smith's Lectures on Obstetrics, that it is a very complete compendium of the knowledge extant on the subjects of which they treat.

Editorial Department.

The American System of Medical Education—American Medical Colleges—A Sketch of their History and Defects, and Suggestions respecting Improvements.

We are led, at the present time, to a somewhat extended consideration of this subject by various circumstances, among which is the receiving from its author of "A Lecture on Medical Colleges, Introductory to the Course of 1858–59, in the Medical Department of the University of Nashville, delivered by J. Berrian Lindsley, M. D., LL. D., Chancellor of the University, published by the Class."

Born and reared under the shadow of an University, (his father having long occupied the position of Chancellor)—having graduated in Sciences and Arts, in Theology and in Medicine, and now occupying the Chancellorship of the University of Nashville, and the Chair of Chemistry and Pharmacy in the Medical Department of that flourishing institution, Dr. Lindsley, in accordance with his inclinations and sense of duty, has devoted much time to the study of educational institutions—visiting, for the purpose, almost every portion of this country, and, we believe, a large part of Europe. Particularly interested, as for many years he has been, in Medical Education, he has always been present at the meetings of the American Medical Association—is familiar with all its transactions, and with the opinions of the leading Medical Men of the country respecting Medical Schools and Medical Education, and

should therefore be peculiarly qualified to express opinions upon the subject he has chosen for his Lecture.

In view of the fact that a convention of the Medical Schools throughout the country is called to meet at Louisville in May next, with reference to the establishment of a uniform mode of conducting these institutions, it may not be considered as out of place that a considerable space should be devoted to a subject having such important relations to the future honor and usefulness of the Profession, and to the interests of the community.

Of the importance of Medical Schools in furnishing to physicians a professional education there seems now to be no question, as such schools are established in all civilized communities, and attendance upon them is everywhere deemed the most legitimate, if not the only proper mode, of entering the Profession. It is true that numbers of our older physicians, some of whom have arisen by their habits of study and observation to highly respectable positions as Medical Men, have passed their period of pupilage in private offices, and received their right to practice from County Courts or Examining Boards, independently of the schools; but of later years these modes of entering the Profession have become almost obsolete, and although many persons still commence the practice of medicine without attending the schools, they are now regarded as interlopers, and are not admitted into the associations of regular physicians.

If, then, the schools are considered as essential to a proper Medical Education—if in them alone men are to be properly qualified for the exercise of functions the most important to the earthly well-being of the public—their proper organization, and the best modes of conducting them—indeed, all things relating to their history and character—become matters of paramount importance to all. We have, then, in this theme, suggested by the lecture before us, a subject of much interest, and in the lecture itself

historical statements of value, as well as suggestions and opinions worthy of particular attention. With the lecture before us, borrowing the ideas of Dr. LINDSLEY, or using our own, as may best suit our purpose, and frequently making quotations to show the style and drift of the author, we propose to give a brief sketch of Medical Schools particularly of our own country, and point out, chiefly by the aid of Dr. LINDSLEY, some of the defects of our present system of Medical Education; and we propose to offer, also, a few brief suggestions as to the manner in which that system should be improved.

The first Medical School of which we have any account was situated upon the little island of Cos, within the territory of Ancient Greece—HIPPOCRATES the father at once of Medicine and of Inductive Philosophy, being its founder and its sustainer during his lifetime, and indeed, by the influence of his name, long after. The lecturer says:

> "This small town will, to the end of time, be famous among men, as having been for many centuries the seat of Medical learning. Thus early are we taught that men give renown to localities, and not localities to men; that brain is greater than rock and soil; that man illustrates nature, causing one species of intellectual culture to give note to one spot of earth, another to adorn a second, and still a different variety a third. Cos, and not learned Athens, or commercial Corinth, or devout Ephesus, was the ancient source of medical light."

For centuries, medical learning was almost confined to the nations which dwelt around the Mediterranean, and here were the works composed which have made the names of HIPPOCRATES and GALEN, of DIOSCORIDES and ARETÆUS, of AETIUS and CELSUS familiar to medical students of all modern nations.

During the long night of science and learning which followed this era, accompanying the protracted struggle in which the hardy tribes of the North subdued and consumed the degenerate and effete nations unworthy the possessions of their fathers, medical, as well as other, learning took

refuge among the Arabians of the East. Here a school of medicine then arose, whose learned men looked to the Greek writers as their instructors, who made careful translations of the Grecian medical works, freely commenting upon them and adding to their value as treasuries of learning.

From Western Asia and Northern Africa, medical learning passed over through Spain and Italy to Southern Europe generally, and from Pagan Greeks and Mahomedan Arabians, to the Christian nations of modern times.

Among modern schools, those of Edinburgh and London have long been famous, and from them our American Medical Colleges have more immediately descended. With these latter, headed by the venerable University of Pennsylvania, established in 1765, we have most to do.

Medical Schools have been much more numerous in this, than in any other country, during the same period of time. As to the stability of different institutions, there have been the greatest contrasts. Some from their origin, many years since, have gone noiselessly on with moderate and uniform success; while others, commencing with distinguished faculties, in eligible locations, with large classes, and every outward appearance of great success, but having some defect of organization, or from some want of harmony in their faculties, or some meddling interference of boards of trustees, or other outside influences, their splendid career has sooner or later been brought to a close; "Their halls have become deserted, and a sense of ruin and desolation makes sorrowful the visitor, as he now looks upon buildings and sites which are only memorials of past glory." Others, still, commencing with organizations defective, in locations unsuited, or conducted by men having neither reputation nor talent to sustain them, have struggled into a feeble but ephemeral existence, leaving behind little else than a record of failure. Some, such as the College of Physicians and Surgeons of the Western Dis-

trict of the State of New York, at Fairfield, having been well organized, with good faculties, and long sustained in a useful career, from having unfortunate locations, and from the springing up of rivals more favorably situated, have at length become numbered among the things that were. The greater number, however, which have fallen into decay and ruin, have done so either from some internal dissentions, or from some corruptions or errors in the governing powers. As Dr. LINDSLEY truly says, "It is far easier to pull down than to build up; and men of a certain calibre can make their mark most readily by destroying the hard-wrought achievements of their betters."

The amount of pecuniary aid furnished by communities for the establishment and support of Medical Schools, has been various in different cases, though as compared with other educational institutions it has usually been small. Several of the larger and best Medical Colleges of the country are departments of Universities; some few of these receiving a part of the endowments belonging to the general institution. In some of these, as in the instances of the Universities of Pennsylvania and Nashville, the Medical Departments are of much the greatest comparative consequence; while in others, as at Yale and Harvard, the Medical Colleges are comparatively, if not positively, small.

In some instances Medical Schools have been entirely or partially established by the liberality of the corporate authorities of cities; and in the number of students attracted from abroad to spend their money in the towns, and in the public attention secured to those places by having within them flourishing schools, the investments have not been found unprofitable. Other Medical Colleges have been aided by the States; as in Kentucky, Virginia, South Carolina, Louisiana, and Ohio; while Michigan and Iowa have devoted, the former a fair, and the latter a moderate portion of their University funds derived from

the sale of lands donated for that purpose by the General Government, to their Medical Colleges, as Departments of the Universities.

But, as already stated, very much less has been done in the way of endowing Medical Colleges than of other educational institutions. The Medical Department of the University of Pennsylvania, the oldest Medical School in the land, pays from the students' fees a rent for the buildings she occupies; and in but very few instances is more done by States, cities, or individuals, than to furnish the grounds and buildings used. On the other hand, it is regarded as essential to Literary Colleges, and all high institutions for teaching other departments of science, that not only buildings of an expensive character should be furnished, but that professorships should be liberally endowed, furnishing means for the support of professors quite independent of students' fees. There are by no means grounds for complaint that so much is done for general Science and Literature, but that so little is thought necessary to be done for Medicine.

It would seen to be no less important to a community that it should be supplied with well-educated physicians than that it should he furnished with linguists and mathematicians. It is not enough to reply to this, that a sufficient number of men will help themselves to a competent Medical Education, for such is not the fact. A very small proportion of the actual practitioners of Medicine throughout the country have received a competent Medical Education. Many, as already stated, have never seen a Medical College, or have had other proper opportunities of instruction. They have undertaken to supply a demand for medical services, without having resorted to the means of qualifying themselves for their responsible duties.

It may not be as important that we should have well educated physicians as that we should have well-trained

clergyman. Of this each one must judge for himself. But whether this be so or not, the contrast between the facilities furnished for Theological and Medical Education is very great. Not only has the theological student his tuition free, but he has dormitories provided, often nicely furnished, and not unfrequently is money advanced for his board, clothing, and books. True all this is furnished by religious denominations and by benevolent individuals, but it is nevertheless done by the community for the public good. And the public good would seem to demand that the education of physicians should not be neglected.

Dr. LINDSLEY is of the opinion that

"The least that should satisfy the Profession as to endowment is, that in addition to the outfit of buildings and apparatus, each school should be provided with a fund large enough to yield an annual income sufficient to meet the heavy expense of keeping up extensive museums and libraries, and also to support the incumbents in the four elementary Chairs, Anatomy, Chemistry, Physiology, and Materia Medica, so as to enable these professors to devote themselves entirely to their specialities, thus rendering them authorities in their departments, and putting it in their power to undertake researches and make experiments and discoveries, which it is out of the question for them to do while harassed with the arduous toils of daily practice." . . . "In each of the large States there should be at least one fully endowed Medical School; and a full endowment for a Medical School should not be estimated at less than two hundred and seventy thousand dollars — one hundred thousand of which would in most cases be required for procuring grounds eligibly located, and buildings suitably designed. A fund of fifty thousand dollars should be set apart for the continual increase of the museum and library, and at least thirty thousand dollars should be invested for the support of each of the elementary Chairs. The practical Chairs — Surgery, Medicine, Obstetrics, and Diseases of Women and Children — could be supported by moderate fees from the students, and the professional labors of the incumbents, it being an advantage to them as teachers that they should be fully occupied as practitioners."

That Medical Colleges should not be left to private enterprise and speculation any more than other institutions of learning, seems to us obvious. That their present de-

fects are largely due to the fact of their being conducted so as to subserve private interests is certain. While the income of professors depends upon the number of students, it is quite natural that each school should be so conducted as to secure the greatest numbers; and it is unfortunately the fact that this result is most certainly accomplished by making the courses of lectures short and the terms of graduation easy. Whatever might be the inclination of students, where large lecture fees are required, many would not have the additional means to spend six or nine months of the year away from home, and from all remunerative employment. They are almost forced to attend colleges where they are detained for the shortest period.

But the important and immediately practical questions respecting the curriculum of studies in the Colleges, the order of pursuing these studies, and the length of time devoted to them, remains to be somewhat particularly considered.

However great the variety as to the endowments and success of different Medical Colleges, the course of study and the requirements for the Doctorate, are, with a few exceptions, nearly uniform in all. The University of Michigan and the University of Virginia vary from the common standard more than any others.

In the ordinary schools there are from six to eight professors, giving lectures upon as many distinct branches. Each lecture continues about an hour, and six, and sometimes seven, are delivered in a day. Besides attending these lectures, students, during some portion of the time spent at the college, are expected to labor at practical anatomy in the dissecting-room, and in many of the schools, to attend to clinical practice in a hospital. The term of lectures continues four months; and, during this time, the whole field of Medical Science (we will not say is explored), is passed over — the lectures on all the different branches

commencing at the same time, and going on simultaneously.

Three years of medical study, or rather a certificate for that amount; the attendance of two courses of lectures, or at least the possession of the tickets of the lecturers; the presentation of a thesis on some medical subject; and the passing of a satisfactory examination (it is thought that some faculties are easily satisfied) before the faculty, are the material conditions for receiving the degree of Doctor in medicine. So far as we know, nothing specifically in the way of preliminary education, except in the single instance of the University of Michigan, is required for graduation.

This, the course of instruction pursued in our Medical Schools at the present time, was planned nearly a century ago; and although the bounds of the science since then have been immensely enlarged, and the condition and wants of the country have greatly changed—although revolutions have occurred in almost everything else, here no material modifications have been made.

This system, at the time of its adoption, was perhaps judicious and proper. Previous to the establishment of the Medical Department of the University of Pennsylvania, under the wise direction of Morgan and Shippen, medical men were educated by a course of reading and instruction in the offices of practicing physicians. The better qualified class of physicians and surgeons received under their tuition a number of students, and for a proper consideration directed their studies, and furnished them all the facilities of knowledge and all the instructions which were in their power.

After this and other schools were established, these private preceptorships were not speedily abolished. Eighteen months or more were still spent, under a more or less rigid system of private instruction, before the college was resorted to. The student then went to the college for four months,

and passed over a connected review of the studies he had been pursuing, illustrated by means which the private preceptors might not be supposed to possess ; the student then returned to his preceptor, and spent eight months more in study and practical observations, and then returned to the school, listening to a repetition of the lectures, and witnessing again the demonstrations that were given. In the condition of the science as it then existed, with every department much less developed than at present — and especially in the state of society and the demand for medical men which then prevailed — this must be considered as perhaps as good a system as could have been adopted, or at least as was practicable. It is certain that under it were trained up a generation of physicians, which, by aid of the impetus given by those stirring times to all American minds, were nowhere at the time surpassed in practical skill, whatever might have been their theoretical knowledge.

It is unnecessary very specially to detail the changes which have taken place in the science and in the country since that time. Chemistry has been more than quadrupled in the extent of its known facts. The same may be said of Physiology. Histology and Pathological Anatomy have almost been created, and other departments have been largely developed. Our country has been extended, wealth has been multiplied, the facilities of travel have wonderfully increased, schools and seminaries have sprung up everywhere, intelligence has advanced, cities have been built, hospitals established, Medical Colleges multiplied. Changes have occurred in the relations of private preceptors and students. Thorough office-instructions, except in rare cases, are no longer given, and the Medical Schools are almost exclusively depended upon for the entire education of physicians. Still, the same four-months courses of lectures are gravely given, as though the world for an entire century had literally

stood still, and as though students still chiefly depended upon office-study and instruction for medical training.

This is not the only instance where systems of education adapted to other times and conditions, from the force of fashion—of stereotyped notions and customs—remain the same. Before the modern developments of natural science, of thought and of literature, the ancient languages and the mathematics were almost the only studies suited to the education and discipline of the mind. When the world was emerging from the dark ages, the highest recorded wisdom and culture in existence were found in the languages and literature of the Greeks and Romans. The study of these languages and this literature was, at that time, essential to high mental cultivation, and was the best indeed, the only, means of affording a liberal education and in the most extended systems of culture—in the circle of universal knowledge—this study, these languages still have a value: but the vast developments of the modern sciences and arts—the wonderful extension of the great field of Natural History—of the departments of political, social, utilitarian, philosophical, moral and religious knowledge, and the amplification of a refined and solid literature belonging to all these subjects, have placed the ancient languages in a very subordinate position; yet most of our colleges still cling to them as the chief and all-absorbing objects of pursuit and mastery. So far does the power of this custom extend, that young men of comparatively mature age, in whom, at a late period, a desire for knowledge has been awakened, and with whom the period of study must be short, are directed to these languages as the chief object of interest and pursuit, to the almost total neglect of the natural sciences, and, surprising as it may seem, to the neglect of a systematic study of their own language. The thoughts of ancient men, in some respects refined and subtle though they be, yet of fallen heathen men, are preferred as means

of educating and storing even minds of developed powers of comprehension, to the infinite thoughts of the CREATOR as expressed in Nature; and the study of the literature of these men is made almost to exclude the literature of the moderns, enriched as the latter is by a vast range of knowledge of nature and society, of men and of GOD, of which the wisest of these ancients were entirely destitute; and, worst of all, the cultivation of the student's native tongue itself, in which all his thoughts are to be conceived and expressed, is often neglected for that of languages which, in active life, he is never to hear, and of which he will but seldom think.

In alluding to this subject we do not wish to be understood as disapproving, in a sweeping generality, of the study of the ancient languages. So far from this, as already intimated, in the more extended systems of cultivation and scholarships, commencing at a proper, early age, we believe it forms an important part. It is against these languages monopolizing, in the case of students pursuing a more limited course of study, the time and attention which should be devoted to more important matters, that we protest. It is the neglect of the modern sciences, and particularly of the English language and literature, that is complained of.

But this is turning aside somewhat from our specified to a collateral subject, and in the remaining space of this already too lengthy article, we propose to briefly point out some of the defects of our present system of Medical Education, and, especially, of the mode of conducting the course of instruction in our Medical Colleges, offering, also, some suggestions for reform.

The first defect in our system is the encouragement, by the members of the Profession, of students in commencing the study of medicine without proper mental and educational fitness. The American Medical Association has spoken upon this subject, placing the responsibility

with the Profession at large; and has recommended that each local or county society appoint a Board of Censors, to examine students applying for admission to the offices of physicians, requiring that each student obtain from such a Board, before crossing the threshold of regular professional studies, a certificate of possessing "a good moral and intellectual character; a good English education, including a thorough knowledge of the English language, and a respectable acquaintance with its literature and with the art of composition; a fair knowledge of Natural Sciences, and, at least, the more elementary Mathematics, including the chief elements of algebra and geometry; and," according with previous action, "such a knowledge of the ancient languages, as will enable him to read current prescriptions, and appreciate the technical language of the natural sciences and of medicine."

Should the Profession generally comply with these requirements, the colleges would be furnished only with proper materials, and there would be no necessity for their attempting discriminations as to who should enter — discriminations which must be made by the colleges generally, in order to be effectual.

The next defect in the working of our system is, that office-instruction is almost totally neglected. This has already been stated, and we are convinced that in the vast majority of cases such will continue to be the case; and, if so, the schools should make provision accordingly. Their courses of instruction should be so arranged, as to supply the full wants of the students.

As to the adaptedness of the instructions in the school to the purpose to which they are applied, we can not do better than give the views of Dr. LINDSLEY. He says:

"The great defects in the programmes of the schools very naturally result from the fact that being arranged to fulfil one purpose, they are applied to carrying out another. They were intended for

review and finishing, — they are made to begin and do all; — hence the incongruity now attending them, so striking and so often commented upon as absurd and unheard of in any other kind of educational training. The first and most glaring of these absurdities is the arrangement by which students are set to studying the elementary sciences upon which a highly complex art is built up, at one and the same time with the study of the art itself. The pupil begins the study of chemistry, anatomy, and physiology, as being the important ground works of medical science, without which he can comprehend neither the theory nor practice of medicine and surgery; and yet, at the same hour, almost, he commences the study of the latter. Before in the one lecture room he has crossed the threshold of anatomy, in another he hears diseases and operations discussed, which require a good knowledge of the whole elements of anatomy to be at all able to comprehend. The bare statement of this anomaly is enough to prove it a crying evil, a grievous imposition and nuisance to the student, that should not be tolerated for a day. The rule is universal to ascend from the lower to the higher, from the principle to the practice, from the science to the art. In medical education alone do we find it otherwise. From this source arise many evils to the student — such as great confusion and perplexity in study, loss of precious time, and waste of valuable and costly means of instruction — which want of time compels us to refrain from discussing."

We continue quoting from Dr. LINDSLEY:

"Another great evil is, that too much by far is crowded into a short space of time. The idea of elementary students going over so extensive a field as seven profound and fertile sciences, entering into the medical curriculum in sixteen or twenty weeks, is perfectly preposterous. It can not be done; some two or three must be neglected and the instruction practically lost. The seven professors, and five or six lectures daily, may go over the ground, but it is simply impossible for any mortal brain to receive and digest so many and such varied lectures in so short a period. This cramming, crowding, hurrying system is also an anomaly not found in any other plan of education, and no less a nuisance to, and imposition upon, students, than the irrational confusing and mixing of the several branches together."

"Still another very serious defect of the present system of Medical Education is the great want of practical instruction. Students are graduated Doctors — teachers of medicine, and certified to be proficients in all branches of the healing art, when, in fact, they know and have seen very little of disease and cure. Notwithstanding the great increase in the number of hospitals during the last thirty years,

and the great noise made over them in circulars and lectures, it is very questionable whether the graduates from Medical Colleges thirty years and more since, were not better versed in practical medicine than they are now; and whether hospital instruction has not been so managed as to deceive, mislead, and put back the Profession on this all-important point.

"Formerly, the student during his long continuance in a practitioner's office saw a great many cases, just such as he would afterwards meet in his own practice, and became quite familiar with all the ordinary operations and appliances of the art. Now, the office-instructor, hearing so much of the vast extent and great facilities of city hospitals for teaching, turns his pupils over to the winter lecturers for practical as well as elementary training. The student goes to the city not less full of the hospitals than of the schools, building perhaps even more upon them in imagination. Nearness, however, removes the enchantment; for, though the hospital covers acres with its imposing piles of buildings, and counts its beds filled with patients by hundreds, *want of time* as effectually excludes him from its advantages, real or imaginary, as though it was a thousand miles away. His whole time is occupied, trebly occupied, with the seven sciences upon which, in a few weeks, he must undergo a dreaded, if not a searching, examination, and his visits to the hospital, if not soon discontinued, become mere matters of form, or seasons of relaxation. Much is seen which would be highly interesting and instructive if time was allowed to observe, study, and digest, but for want of this all-essential element, the sight becomes rather an injurious diversion from academic studies. Both preceptors, then, and students neglect advantages at home, if properly used, of inestimable value, because they are dazzled by advantages at a distance, of no practical avail."

The last evil specified by Dr. LINDSLEY, and which he thinks

"At present almost engrafted upon our plan of teaching, and which has excited great complaint with the Profession, is the conferring the diploma, and thus receiving into the Profession persons whose degree of knowledge by no means warrants this dictinction. . . . We have only time to state the grievance, and remark that as long as every thing is made to depend upon a single examination, it is very doubtful whether any remedy will be of avail. A long course of study and preparation is brought to a close, and the candidate stands before a board of examiners to receive the reward of his toil, or what in the eyes of all his friends, his acquaintances, and himself is a sentence of lasting disgrace. Need it excite wonder, that if even but very slimly qualified he passes the ordeal? The result would, in all probability, be the same whether

the boards of examiners are professors or not. It is, by no means, unlikely that non-professorial boards would be more tenderly humane than those more familiar with students, and interested in maintaining for their colleges a respectable standard of graduation, and a fair reputation with the Profession."

We have chosen to allow Dr. L. to be heard in relation to the present defects in Medical Colleges, in his own language, and to present his views on this subject as sufficiently accordant with our own for the present purpose. The extracts contain many things which the Profession should well ponder. He has hopes of important changes being effected to remedy these evils. He suggests that medical instruction should be placed more fully and acknowledgedly under the direction of the schools; that eight months in each of the three years of study should be passed in them—the students attending two courses of lectures and recitations instead of one, yearly; and that they should be subdivided into three classes, instead of comprising only one, as now. He further suggests that there should be three, if not six, examinations passed, the different branches being studied in due progression, and certificates of proficiency issued accordingly —the degree of Doctor of Medicine being issued when, and only when, all these certificates have been attained.

These points are all worthy of consideration, and we are not disposed to say, at present, how well we think they are adapted to a plan for ultimate adoption; but so radical a change, it is not reasonable to expect, can be speedily effected.

The brief outlines of a plan which seems to us the best adapted to our present wants of any appearing feasible, would be something as follows: The course of didactic instruction in the colleges should continue at least eight months of the year. During the first half of the course the lectures and recitations should be confined to the primary branches, including Chemistry, Anatomy (De-

scriptive, Histological, and Morbid), Physiology, and Descriptive Materia Medica, including the outlines of Botany and Pharmacy. The last half should be devoted to General and Special Pathology, and Practice of Medicine ; General and Special Therapeutics, or a full discussion of the methods of cure, the agents employed for such purposes, their modes of operation, and the rules for their application ; Surgery ; Obstetrics, and Diseases of Women and Children. There should not be over four lectures each day, but each should be an hour in length, preceded by an examination of the class for half an hour on the lecture of the day before ; thus securing much better attention, more study of the subject, and the correction of any misapprehension that may have occurred. If found necessary for the purpose of allowing students more time for Practical Anatomy and Chemistry, three such lectures and recitations per day only, might be given for a portion of the course.

As it is so important that the principles and facts of medicine should be perfectly fixed in the mind, and ready to be called up at any moment in practice, two such courses of lectures should be required of the student, — the whole of the subjects being thus reviewed after a lapse of time, and after courses of reading and observation, a more enlarged and perfect understanding would be secured.

Besides these elementary and didactic courses, a thorough course of Clinical Instruction should be required —the student seeing only such a number of patients daily, whose cases he can carefully study, properly understand, record, and remember. These hospital instructions should not be attended till after a full course of didactic lectures had been listened to, and the student become qualified to appreciate the cases and the application of the principles previously taught. He should follow the cases from day to day to their final results — and all this should be at a time when

other studies of a more elementary character are not occupying too much of his attention.

As at least three full years of medical study should be required, and as the first College Course is supposed to be taken early in these studies, there would be ample time for attending the Clinical Course without its interference with the didactic.

In this plan, there seems to us nothing Utopian, or in any sense unpracticable. The Profession, including the Medical Schools, have only to will it, and the improvement may at once be accomplished. Should the movement be general among all the schools we can not see how the pecuniary interests, or even the convenience of any professors can be injuriously affected. The plan is perfectly simple, feasible, and proper, and would confer a boon upon the Profession and the community incalculable — for should it be adopted, and should the Profession well guard the portals so that those sent to the colleges should be possessed of sound minds properly cultivated and disciplined, such a body of medical men would be furnished to the country as would do great honor to the Profession and great service to humanity.

The necessity of a reform of some kind is universally admitted. Should any other plan seem better than this, we are ready to advocate its adoption.

We would be glad to see the subject agitated by our cotemporaries, and the general sentiments of the Profession elicited.

In view of the meeting at Louisville, shall we not have a general expression? Who will be found opposing that meeting and its objects? Ought not our cotemporaries to indicate their positions on this subject?

A. B. P.

We have received, by the politeness of Prof. S. H. Dickson, of Jefferson Medical College, Philadelphia, an "Inaugural Lecture to the Course of Practice of Medicine," preceded by some remarks preliminary to an Introductory Lecture by Prof. R. Dunglison—both Inaugural Lecture and Remarks being upon the life and character of the late Prof. J. K. Mitchell, whose place in that very flourishing school Prof. Dickson now occupies.

We have read this pamphlet, containing, as it does, a fitting tribute to the worth of Prof. Mitchell, with a melancholy pleasure, having had an acquaintance with the subject of the eulogies.

Prof. Dunglison's remarks are brief, but pertinent and touching, while Prof. Dickson, in his accustomed elegant and impressive style, follows his predecessor, who was also his early and intimate friend, through the different periods of his intellectual and professional life, dwelling upon his successes as a student, a practitioner, a teacher, and a man of science and letters, up to the closing scene which, however painful to his friends, found him composed, and thankful that an acute disease, rather than a long and tedious form of suffering, was to bring him to his final rest.

Prof. Mitchell's writings were not voluminous, though, for the most part, they were original and striking; and although his novelties in speculative and practical matters have not all been adopted by the Profession as truth, they nevertheless have stimulated inquiry, and indicated a bold and active mind, not content to jog along for ever in the old and beaten track. His little volume of "Six Lectures on the Cryptogamous Origin of Malarious and Endemic Fevers," extending the same views to Cholera, &c., we remember as containing much learning, ingenuity, and plausibility; and have ever since had a vague impression that increased facilities for revealing the existence of the minute will ultimately demonstrate that zymotic and contagious

diseases generally, depend upon various organic substances taken into the system, and acting as poisons—organisms of the lowest and simplest forms of cell-structure, existing in that undefined region in which the vegetable and animal kingdoms blend together.

Having a fondness for exploring the obscure and hidden, and not believing that our commonly-received "philosophy" embraced all things in "heaven and earth," the phenomena presented by the nervous system under a vague influence called "Mesmerism," attracted the attention of Prof. MITCHELL; and with a boldness which few in his position have possessed, he pursued experimental investigation for five years, and presented their results in a paper read before the College of Physicians of Philadelphia. Many of the claims of those who profess this "science" were of course, after due examination, rejected as delusions; but yet, in the language of Dr. DICKSON, "After all proper deductions have been made for error and imposture, the impartial observer is still compelled to confess that there remains an unexplained residuum of curious and interesting fact."

It might be supposed that no great boldness was required to acknowledge these phenomena, when such men as LA PLACE, CUVIER, Sir JOHN FORBES, and Prof. J. HUGHES BENNETT recognize the facts which their senses could but perceive; but yet, in most medical circles, the odium of this subject, arising from its almost constant association with extravagance and imposture, has always been so great, that most medical men, whatever may have been their opinions, have shrunk from presenting them, crude and unsatisfactory as they necessarily were, unless they could join in the general cry of "delusion." Prof. MITCHELL, however, was governed by no such considerations of prudence, or influences of fashion in opinion; and although it is most probable that he was led into extravagances and errors of

opinion by the power of his imagination, yet there is much to be admired in the frankness, the enterprise, and the boldness of such a spirit, when compared with that timid skepticism and frigid prudence which binds its possessor to the narrow routine-circle in which all others move.

Though Prof. MITCHELL, in common with other men, doubtless had imperfections of mental constitution, yet he possessed rare qualities of intelligence, sagacity, refinement, and energy, and will be remembered with the warmest affection by thousands who have listened to his instruction, and received his kind attentions. His affability knew no bounds, and the hearts of many young men, as they stood among strangers in a strange city, were bound to him with ties which have not been severed without severe pangs.

His disease was pneumonia, supervening upon a condition of partial paralysis, and speedily terminating his earthly existence — but he "rests in the hope of a glorious resurrection, and life in the world to come."

A. B. P.

We commence in the present No. what we hope will prove a *series* of practical articles from our friend Dr. PATTERSON, on a few important articles of the Materia Medica. We are promised another or two in continuance of the present on *Veratrum Viride*, and one or more upon the effects of the *Muriated Tincture of Iron in Erysipelas.*

The author is well known as a physician of much intelligence, of long and large experience, of minuteness and accuracy in observation, of decided carefulness and skill in practice, and of the utmost reliabibity in his statements. We think the articles will be of no slight value or ephemeral interest, and have great confidence in commending them to our readers as worthy of their attention.

A. B. P.

Registration.

An effort will be made, this session of our Legislature, to have a law passed for the Registration of Births and Deaths. It is desirable petitions should be early forwarded from every part of the State. Petitions will be sent to a number of the Physicians, who it is hoped will be interested to get names and forward to their Representatives in the Legislature.

Glass Signs of Burnished Gold.

We would notice an elegant specimen of workmanship from the factory of GRENUS & MANFRED, Cincinnati (whose card will be found in the Advertisement Department), which can be seen at the Pharmaceutical Store of Messrs. HIGBY & STEARNS of this city. It consists of the glass in a show case surrounding their dispensing department, upon the front of which is lettered—*To insure accuracy and dispatch in prescriptions, clerks should not be annoyed by questions while dispensing"*; upon one end this sentence, "*In Medicine, quality is of the first importance,*" and "*Terms strictly cash*" upon the other. These, for artistic execution, exceed anything we have ever seen, and we bespeak the patronage of all Pharmaceutists who would embellish their establishments with the most perfect specimens of the limner's art to address this new and enterprising firm.

Pharmaceutical Department.

Extracts from a Paper upon the Medical Plants of Michigan, presented to the American Pharmaceutical Association, by Frederick Stearns.

There are two methods of collecting the resin of the hemlock (*Abies Canadensis*), one of which consists of cutting cup-like incisions into the body of the living tree, and removing the soft resin as it exudes; the other, and most common one, is to remove the wood and bark around the knobs or knots of the felled trees, which are rich in resin; these being placed in water in a large kettle, the resin is boiled out, and rising upon the top is skimmed off, and further purified by re-melting and straining. The product of this method is not is not so good as that by the former one, the heat to which it is exposed necessarily driving off much of the essential oil. Not content, however, with making this gum by an inferior method, the collectors often put the gum into market sophisticated with common resin to the extent of seventy per cent. The commercial oils of spruce and hemlock are one and the same thing; and are distilled from the boughs of the Abies Canadensis.

The mode of proceeding is as follows, related to me by Mr. David Bales, of Livingston county, who does a large business in distilling the oil. The trees are cut down, and the boughs collected only; these are cut up fine, and subjected to a distillation with water, in a portable copper still and worm, capable of holding about one hundred gallons, which is so arranged that it can be transported in the woods, and erected quickly upon a temporary arch; two pails full of boughs (about 8 lb.) are calculated to yield one ounce of oil, or about three pints to one running of the still, which occupies from thirteen to twenty-four hours, according to circumstances (fuel, wind, etc.) The distilling is done only in winter, when the tree is richest in oil, and labor is cheapest; the price which the oil brings in market, is from twenty-five to forty cents per pound, upon the average.

Abutilon avicennæ. Indian or Yellow Mallow, Velvet Leaf.

Natural Order. *Malvaceæ*; indigenous, reported abundant in Monroe county. Dr. Dorsch states that he finds the leaves contain mucilage-

like leaves and root of Althea officinalis, and that they can be used in similar cases.

Acer	*alba.*	White Maple.
"	*ericocarpum.*	Silver Maple.
"	*nigrum.*	
"	*striatum.*	Striped Maple.
"	*saccharinum.*	Hard or Sugar Maple.
"	*rubrum.*	Soft Maple.

Indigenous; abundant. The inner bark of this genus contains an astringent principle, probably tannin, and a peculiar bitter matter, rendering it valuable as a tonic and diuretic. The bark of the A. rubrum has been employed in decoction for certain cutaneous diseases, and as a lotion for sore eyes, by the Indians. The principal medicinal value of the A. saccharinum resides in the sugar made from its sap. This tree is abundant in isolated patches throughout the Lower Peninsula, and in the eastern portion of the Lower Peninsula. The Ojibways of the north make large quantities of sugar from it, which, however, has usually a peculiar, slightly bitter taste. Instead of appearing in market in cakes, as usually found, it is granulated and packed in canoe-shaped packages, formed of the bark of the canoe birch tree.

Adiantum pedatum. Maiden-hair, Rock Fern.

Indigenous; not very common. The plant is slightly aromatic, and upon comparison with the best of the foreign imported plant (capillus veneris), it seems to me to be better, more active. It is used in the form of a syrup for coughs, and a syrup prepared so as to preserve its aromatic qualities has been employed in this country for flavoring mineral water.

Aletris farinosa. Unicorn Root, False Aloe, Squirrel-corn Root, Star Grass, Colic Root.

Natural order, *Liliaceæ* (Lindley). Indigenous; abundant in the sandy, dry soil of pine barrens; reported abundant in the south part of Saginaw county. The root, which is the portion collected, is small, crooked, blackish, and intensely bitter; it is much employed by the "Eclectics," in the dry state, as a bitter tonic, and I believe Mr. Merrill has named a bitter extractive, or resin, obtained from it Aletrin. The term Unicorn Root, by which this plant is best known, is also applied to the Helonias dioica, from which, however, it essentially differs.

The root is recommended to be collected after the fall of the flower, but there seems to be difference of opinion in relation to the proper time of collecting the officinal portion of plants. Among others, Dr. Edward Dorsch considers spring time to be the best for collecting roots and leaves, before flowers or blossoms appear; bark should be collected in winter and spring—February and March.

Dr. Wilson, of Port Huron, states that the *Allium cepa* is described in the books as stimulant, diuretic and expectorant. I have found it (he says) narcotic, and have used the expressed juice with apparent benefit as an anodyne, narcotic, diuretic, in vesical irritation, and with apparently satisfactory results.

Apocynum androsæmifolium. Bitter-root, Dogsbane.
" *cannabinum.* Black Indian Hemp.

Natural order, *Apocynaceæ.* Bitter-root is indigenous; found plentifully throughout the State, on sandy ridges, hill sides, and in woods. Most employed as a tonic, emetic, and laxative; considered very valuable by the "Eclectics."

The Indian hemp root is abundant in dry soil in the lower tier of counties of Lower Peninsula. Dr. Ed. Dorsch states, that in combination with podophyllum it acts upon the liver and bowels so admirably that he has almost given up the use of calomel in cases of bilious fever and induration of the liver, which have been considered to yield only to mercurials. It has, I believe, of late, been recommended by a physician of Virginia as an antiperiodic of great power. In a communication to the *Peninsular Journal*, vol. ii. p. 437, great power is ascribed to it in certain uterine diseases.

Amelanchier (Aronia) botryapium. June-berry, Shad-berry, May-flower.
" *ovalis.* Meadow bush.
" *sanguinea.*

Indigenous; abundant in south half of Lower Peninsula. This beautiful shrubby tree is in full flower in our wet, swampy woods around Detroit, early in May, before the trees are in leaf, and it forms a striking and beautiful sight. The flower is white and nearly scentless; they are, in their freshly dried state, highly recommended by Dr. Allen, of our city, as a powerful anodyne in various nervous affections, in uterine diseases, and to assuage the after-pains of labor. The flowers are exhibited in infusion.

Arum triphyllum. Wild Turnip, Indian Turnip, Dragon root.

Natural order, *Araceæ.* Indigenous; abundant in rich, moist woods, in middle and south of Lower Peninsula; reported plentiful in Monroe county. The cormus is used in the recently dried state; it is acrid and expectorant. The drying of the root dissipates the volatile acrid principle, and it then consists mostly of starch. It should be collected in spring, sliced transversely, and dried on strings, after the manner of apples.

Asclepias incarnata. White Indian hemp.
" *pulchra.* Swamp Silkweed.
" *syriaca.* Silkweed.
" *tuberosa.* Pleurisy Root, White Root.

Natural order, *Asclepiadaceæ.* The roots of the first two are used

as anthelmintics. That of the the A. syriaca is considered by Dr. Paddock, of Pontiac, to be one of the most reliable of diuretics, but produces a scratching feeling in the throat, by irritating the mucous membrane.

The A. tuberosa is very abundant throughout the Lower Peninsula, in sandy soil; it is well developed, and thousands of pounds are now annually exported from our State. This root is rightly held in high estimation.

Betula excelsa. Yellow Birch.
" *glandosa.* Scrub Birch.
" *lenta.* Sweet Birch, Black Birch.
" *papyracea.* Paper or Canoe Birch.

Natural order, *Betulaceæ.* Indigenous. The B. lenta is plentiful in the lower portion of Lower Peninsula. The young bark is used as a tonic, stimulant, and aromatic.

As the aromatic principle of the B. lenta is identical with that of the Gaultheria procumbens, it is presumed that, in those districts where it is abundant the aromatic oil might be profitably obtained from it. The Canoe Birch abounds in the Upper Peninsula, and its smooth inner bark is much employed by the Indians for the manufacture of tents, canoes, and a variety of useful and ornamental articles.

Bidens frondosa. Beggar's Tick, Cuckold.
" *tripartita.* Spanish Needles, Swamp Beggar's Tick.

Indigenous; common everywhere, in cultivated places. Plant, root, and seeds used as expectorants and emmenagogues. Dr. S. W. Williams states that an infusion of the seeds, formed into a syrup with honey, good for the hooping cough.

Carya amara. Bitter-nut Hickory.
" *porcina.* Pig-nut Hickory.
" *sulcata.* Shellbark Hickory.

Indigenous; abundant in south of Lower Peninsula.

Besides the value of this genus as timber, the leaves are aromatic and astringent, and the bark contains evidently a valuable bitter (tonic) principle, as may be inferred from the following: Mr. Coffinberry, of Constantine, St. Joseph county, in a communication to me upon another subject, states as follows: "I think I have discovered that the inner bark of the common wild hickory [probably C. amara. — F. S.] possesses an active stimulant and tonic virtue, and that may be used successfully as a febrifuge. But not being a physician or pharmaceutist, and never having had an opportunity of making a scientific analysis of its chemical nature, I am not prepared to speak with certainty, and base my opinion upon experience, a few incidents of which I will present. Ten years ago I was afflicted with indigestion, attended with its usual concomitants, acidity of the stomach, morbid appetite, flatulency,

diarrhœa, etc. I attributed this to the habitual use of tobacco, which, if not the prime cause of the disease, was an agent of its aggravation. As a substitute for the tobacco I selected the inner bark of the hickory, on account of its pungent, saccharine, and drastic qualities. I soon found my health improving, and that although I resumed and continued the use of tobacco, I was rarely visited with indigestion; and if occasionally visited with the symptoms, from having over eaten of too rich or unwholesome food, that to chew the hickory bark, and swallow its juice, would stimulate the stomach to action and correct the gastric fluid. This success led me to prepare a strong fluid tincture of the bark, by cutting it small and putting it into pale otard brandy. My children (three of them) were at the time sick with the disease then prevalent in this region, arising from malarious atmosphere, and known as chill fever. I gave it them of this tincture three times a day, and in two days they were well. The next year I gave it to them after the first paroxysms, and a second one did not occur. Since then I have used no other remedy in my family for ague, fever, and other bilious diseases, and always with like success. Upon my recommendation, many others have used it with like success. Many have steeped the bark, and have used the infusion thus obtained instead of the tincture. Infusion in water seems to dissolve the active matter, as the tea thus made produced the same effect as did the tincture. From this experience I am led to believe that an extract might be obtained from the bark of the hickory tree that would take the place of quinia in the treatment of bilious diseases resulting from the derangement or morbid action of the liver and the digestive system generally."

The genus Carya belongs to the order Juglandaceæ, of which the family Juglans are employed in medicine; but the authorities do not give any medical power to the Carya at all, and it may be that Mr. Coffinberry's experience is valuable to the profession.

Caulophyllum thalictroides. Blue Cohosh, Squaw root, Papoose root.

Indigenous; very abundant in northern half Lower Peninsula; commonly found in moist, rich soil near streams. The root is sweetish, pungent, and is considered valuable as an emmenagogue, parturient, and antispasmodic, by the "Eclectics." Dr. Hewet, an "Eclectic" practitioner of Mount Clemens, states that he has found it useful in scarlatina, reducing fever, relieving swelling of the glands; never has known a case of dropsy to follow the use of this substance in scarlatina. He employs it for children with the same disease, as a gentle tonic, with success.

Dr. Dorsch says he knows the root of the *Gentiana crinita* and *Gentiana saponaria* to contain the same bitter principle as that of the *Gentiana lutea*, and may be used accordingly.

Humulus lupulus. Hop.

Dr. WILSON, of Port Huron, states "That lupulin is described in the books as narcotic sedative. I have used it a great deal, but never saw anything approaching to narcotism produced by it. I have found it to be an efficient antiphrodisiac in spermatorrhœa. Dr. SMITH, of Troy, in this State, says he used it with considerable benefit in a case of hysteria, but a tolerance was soon established, and after a few days it had no more effect. I have observed this, but generally found that if, after a suspension of a few days, it be again used, it is as efficient as ever. From comparing my experience with that of Dr. SMITH, I would be inclined to regard it as having a specific action upon the lower part of the spinal cord, depressing its reflex power."

Hyoscyamus niger. Henbane.

This plant is indigenous, and abundant in and around Detroit, in Macomb county, and several other portions of our State. The writer of this paper made a report upon this plant at the last meeting of the American Pharmaceutical Association, in which he was unable, from want of time, to have the quality of the extracts he made from the indigenous plant tested in comparison with those made from the foreign plant in England by the best houses then engaged in their manufacture, and also of those made by the writer himself from the foreign dried leaves; he now, however, can say that a fair and impartial trial, in the hands of numerous physicians of the city of Detroit, and of St. Mary's Hospital, has resulted in the opinion being expressed by those employing the several extracts, comparatively, that those made by the writer, from the indigenous plant were *more satisfactory as therapeutical agents, on account of their activity*, than the foreign extracts with which they were compared. This result will be found to be confirmed by the Report upon the Progress of Pharmacy, made by the St. Louis Phamaceutical Association, at this present meeting.

Juglans cinerea. White Walnut, Butternut.

The *Juglans cinerea* is found among the pineries, in isolated spots, a few trees together; is reputed plentiful in Monroe county, by Dr. DORSCH, who states that the inner bark gives an extract quite as valuable as that from the bark of the *Juglans regia*, which is recommended by the European Pharmacopœias in scrofula.

Pterospora andromeda. Coral, or Crawley.
" *flaviculis.* Yellow Stalked Crawley.
" *leucorrhiza.* White Stalked Crawley.

These rare and singular plants are found more plentifully in Michigan than in any other State. They abound in the hard clay soils of barren uplands, in Eaton and Macomb counties. The root is gathered

in October. I should say that from three hundred to five hundred pounds are now annually gathered; it is considered a certain and powerful diaphoretic.

CHICAGO CORRESPONDENCE.

The year 1858, which is closing upon us, has been one in which good health and hard times have ruled in our city. The hard times are relaxing their grip, but the good health still continues. Over forty physicians have starved out and left the city within a year. They are scattering to all parts, with long faces and short purses, bewailing the day when, looking over the world from the far east, they heard that in Chicago there were unlimited numbers of patients to be cured.

Last winter was very mild, the spring, summer, and autumn have been exceedingly wet; but contrary to expectation these circumstances have not been injurious to health. There has been almost a total absence of the usual summer enteric complaints and autumnal fevers. Just at present there is an almost universal influenza prevailing, but of very mild grade, and seldom requiring treatment. The type of disease is still sthenic, and more rheumatic affections occur than of any other one sort.

I am gratified to state that the quacks have had their full share of starvation, and even the Homœopaths have proved that they can not survive here when the doctrine of infinitesimals comes to be applied to their fees. Some have left, and the rest have almost to a man abandoned the exclusive use of small doses. Some of them send their prescriptions to common drug stores, like other folks. One of them *bled a patient* the other day. Shade of Hahnneman! what is the Little-Pill System coming to?

The most successful quacks now extant are those who reside in the city, and advertise themselves extensively as specialists, generally in diseases of the lungs. They get but little business from the citizens where they live, but they contrive to spread the impression extensively in the country, by means of puffing, that they are very distinguished *city physicians.* When they have thus laid the train, they sit down and wait for their prey. Country people and villagers come scattering in, and each one is charged from five to fifty dollars, and go away full of the impression that they have seen a great man. Many a rich farmer, country merchant, or village lawyer is thus made to pay for trashy advice abroad, when he had a sound, educated physician close by him at home, whose skill and knowledge was a thousand-fold greater than that of the city humbug, for whose nonsense he spent his dollars.

Country and village physicians owe it to their patrons to explain, when opportunity offers, that no eminent city physician ever advertises in

the papers. The men who advertise abroad are, every one of them, without exception, imposters. Not a man of them has any reputation at home, nor any hope of much city patronage. Their sole reliance is in the art of deluding country men.

One young man from the country came here to see such a man the other day. The *Great Pomposity* proposed to cure him for forty dollars. This being a little more than he expected, he took time to deliberate, and called on me. On inquiring into his case I found him absolutely free from disease of every kind except a spontaneous emission of semen ONCE *in about three months.* He had been frightened by some book or advertisement, aud came in for a cure. I told him to go home, and pay no attention to it, and not to give any doctor a single cent to treat it.

Rush Medical College, I understand, has about 120 students.

The Homœopathic State Society met here shortly since, and considered the propriety of establishing a Homœopathic College. They decided that the effort would be at present "*premature.*" The number in attendence was homœopathically small.

Cook County Medical Society goes on as usual with its monthly meetings. At the last meeting, Dr. Andrews read a paper in which he contended that the use of the muriated tincture of iron in erysipelas was virtually an administration of acid. He contended that the reason why the poison of erysipelas is not limited by plastic effusion is because of the presence of an excess of alkalies which tend to liquify all protein compounds; and that muriated tincture of iron yielded up its muriatic acid to the alkalies, neutralizing them, and leaving the iron in the blood. The alkalies thus being converted into chlorides, lose their alkaline power. He showed that all the chief remedies for erysipelas are of such a chemical composition that when brought into contact with the alkalies potash, soda, or ammonia, they will yield up to them some neutralizing agent, usually chlorine, iodine, or some acid. Hence the efficacy of not only the tincture of iron, but also of tincture of iodine, bichloride of mercury, sulphate of iron, sulphate of copper, nitrate of silver, sulphate of quinia, and even the domestic cranberry poultice; to which list Dr. A. adds free mineral acids, which he asserts that he has used in these cases, both externally and internally, with decided effects.

Our county authorities have for many years refused to pay for judicial post-mortem examinations. The more prominent physicians here now will not make them without pay in advance. I am myself preparing to sue a claim of this sort, with a view of establishing the precedent that medical services can't be had in these cases for nothing.

The mortuary records of this city have fallen into a state of confusion, from the carelessness of the officers having charge of them, so that it is impossible to arrive at any statistical information from them. Many deaths are not recorded at all, the body being interred privately by the friends.

Yours, truly, X.

THE

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Original Communications.

ART. LI.—Veratrum Viride.

By M. A. PATTERSON, M. D.

(*Continued.*)

DR. NORWOOD informs us, in his first pamphlet, dated January 2d, 1854, that Veratrum Viride, as a therapeutical agent, had excited comparatively little interest previous to June, 1850. He then alludes to Dr. OSGOOD'S article, and says:

"The only additional information he conveyed was, that it is destitute of cathartic powers, which give it a superiority over the Veratrum Album or European Hellebore, in the treatment of cases where active cathartics are inadmissible. Be this as it may, it is certain, and can not be successfully controverted, that prior to June, 1850, it was not known positively to possess any superiority over Veratrum Album; indeed, the one was supposed to answer the same purposes as the other.

"Why Dr. OSGOOD ceased to give further notice of its powers, we are not prepared to say." . . . "We do not wonder at the violent and drastic effects he witnessed; but we rather wonder, from the large doses given, that he obtained any beneficial effects."

As it is generally conceded that prior to the appearance of Dr. OSGOOD'S article but little was known on the subject, we presume, therefore, that we are indebted to him, mainly, for whatever was published respecting the peculiarities of the medicine down to the time when Dr. NORWOOD favored us with his experience. If this is true, and I am not aware that it is disputed, Dr. NORWOOD'S remarks will elicit surprise when it is known that the "only additional information" to which he alludes is very far from being all the important information conveyed by Dr. OSGOOD. But, as *ex parte* statements are frequently partial, for convenience of comparison, I have taken a few passages from the pages of both of these writers, and placed them in juxtaposition to each other. Let them speak for themselves.

Dr. OSGOOD.	Dr. NORWOOD.
"Its influence on the circulating system is very decided. By the exhibition of full doses, I have frequently known the pulse when ranging from 75 to 80 in the minute reduced to 35 or 40 in the course of a few hours. Its effect upon the strength of the pulse is as great as upon its frequency."—*A. J. M. S., p.* 301.	"But the greatest and most valuable power, and that which so emphatically distinguishes it from, and gives it such pre-eminence over, all other agents as remedies, is its power to control the action of the heart and arteries when morbidly excited."
Pages 307 and 308, two cases are recorded in which the pulse, by its influence, "was reduced in frequency from 90 to 55 in the minute." In the other, "from 95 to 40 in the minute."	"Capable of reducing a pulse from 130, 140 or 160 down to from 50 to 60 and 70 beats per minute." *3d Ed., p.* 7.
Pneumonia.	*Pneumonia.*
"It appears to be best adapted to the variety *notha*, and has often succeeded in breaking up the disease when acute and fully formed. I have also used it in the variety *vera* with decided benefit. Most	"In July, 1844, we first used it in the case of Mrs. L. She had been laboring under a severe attack of pneumonia typhoides." . . . "The second case in which we used the Veratrum Viride was that

Dr. OSGOOD.

cases require a small quantity of opium in combination, and when administered with the view of breaking up the disease, it should be given in full doses, and repeated at short intervals. — *Ibid.*, *p.* 307.

Gout, Rheumatism, and Asthma.

"It is the opinion of Dr. TULLY that with proper management it will cure a majority of cases" of gout.

"It appears to be as well adapted to rheumatism as gout. There is no remedy within my knowledge, with the exception perhaps of actea racemosa, to which acute rheumatism more readily yields." — *Ibid.*, *p.* 306.

"In metastasis of rheumatism to internal organs, this remedy is equally valuable." — *Ibid.*

"There is much testimony in favor of this article in the disease commonly called asthma. It should be given in drachm doses of the tincture as the paroxysms are coming on. The paroxysm is generally relieved by the first dose which should be conjoined with a half drachm of the tincture of opium." — *Ibid.*, *p.* 308.

The Antidote.

"For counteracting its ultimate narcotic effects when carried to an undue extent, I have invariably succeeded with small doses of lauda-

Dr. NORWOOD.

of Mrs. M., who was laboring under a severe attack of pneumonia." — 1*st Ed.*, *p.* 7.

"We do not hazard any thing of opinion or reputation when we assert that it is a specific in pneumonia in the qualified terms we have stated." — *Ibid.*, *p.* 28.

"In pneumonitis, we consider the Veratrum Viride as much of a specific as we do sulphate of quinine in intermittent fever." — 3*d Ed.*, *p.* 7.

Gout, Rheumatism, and Asthma.

"In gout and rheumatism it promises much from the limited trials that have been made."

"In asthma and rheumatism, its effects are peculiarly striking, especially in the acute forms." — 1*st Ed.*, *p.* 13.

The Antidote.

"Morphine and brandy, or laudanum and brandy; indeed, laudanum or morphine in sufficient doses is a perfect antidote for all the

Dr. OSGOOD.	Dr. NORWOOD.
num and brandy, often repeated." —*Ibid.*, *p.* 301.	drastic effects of the tincture of Veratrum Viride." —3*d Ed.*, *p.* 7.

The writer will not stop to multiply the parallelisms, as Dr. NORWOOD has presented us with two more statements for examination. The first is, "that prior to June, 1850, it" (the Veratrum Viride) "was not known positively to possess any superiority over Veratrum Album; indeed, the one was supposed to answer the same purposes as the other." Had this statement been presented twenty-three years ago, in the form of a question, to Dr. OSGOOD, he could have pointed to his article, then just published, as applicable to its solution. For we find, on page 297, he used the following language:

"The analogy in external appearance between this species (Veratrum Viride) and the Veratrum Album of Europe, was the circumstance which first led to the investigation of its medicinal properties. But notwithstanding this analogy, there is a decided difference in their medicinal operations — the Album being hydragogue cathartic; whereas, the Viride has not the slightest laxative effect. It is commonly said to contain the proximate active principle *veratrine* as the seat of its medicinal properties. This opinion however seems to be entirely gratuitous, being drawn from analogy in external appearance with the European species, more than from actual investigation."

This point is further elucidated by Dr. OSGOOD, in the extracts published in the last No. of this Journal.

If the early experimenters had found that the Veratrum Viride was an active "hydragogue cathartic," as well as an emetic, it is probable that its superiority over several other remedies would now be regarded as trifling. Certainly, the two-fold operation of emetic and cathartic would have essentially modified its therapeutical action. Dr. PARIS remarks that "*those medicines only are practically similar, whose operations have been found by experience to continue similar under every condition of the human body; and which, moreover, owe such similarity to modes of operation*

which are compatible with others, and consonant with the general indications of cure."

The second statement to be considered is this:

"We do not wonder at the violent and drastic effects he witnessed; but we rather wonder, from the large doses given, that he obtained any beneficial effects."

There is not a word in Dr. OSGOOD'S article, nor a symptom described, which justifies this censorious remark; on the contrary, as the result of his experience, he distinctly states "That it requires but a moderate degree of attention to render the operation of the Veratrum Viride perfectly safe." It is true, under the head of its "narcotic effects," he gives the extreme symptoms which occurred in trials of the medicine on himself and on a friend. Both were in comparative health at the time. It does not, therefore, necessarily follow that such active effects from the same, or even larger doses, would have been developed had those gentlemen, at the time of their experiments, been laboring under disease, particularly if of an inflammatory or febrile character.

Dr. OSGOOD recommends as a medium dose of his tincture from f. 3 ss. to f. 3 j. To those of us who are accustomed to prescribe much smaller doses of Norwood's Tincture or of the fluid extracts, this dose may, indeed, seem too large. But we have no positive knowledge of the actual strength of the tincture used by Dr. OSGOOD, except from its effects, in consequence of the influence of those causes heretofore named as controlling the activity of medicinal preparations. It is not so much the quantity of a dose, as its strength, that gives it activity. Again, Dr. OSGOOD usually combined the medicine with opium, in order to qualify its irritating effects, and to promote, or allow time for, the development of its deobstruent or alterative action. I have prescribed the remedy in the same

combination repeatedly, with the happiest results, and in doses that otherwise would have been too large. Dr. Osgood's doses, thus qualified, may have produced even less "violent and drastic effects" than have been witnessed occasionally from Norwood's Tincture, when given in the doses recommended by him, without the governing antidote.

The reader can now judge for himself how far the record sustains the foregoing statements of Dr. Norwood. He can also decide whether the following conclusions are legitimately drawn from the "information conveyed," nearly a quarter of a century ago, by Dr. Osgood:

1. That the medicinal properties of the Veratrum Viride are essentially different from those of its congener, the Veratrum Album.

2. That it controls the circulation, and, as a consequence, reduces decidedly, the frequency and strength of the pulse.

3. That it is an important remedy in inflammatory diseases, particularly in arthritic and pulmonic inflammations.

4. That it is an efficient deobstruent or alterative.

5. That when used with a reasonable degree of caution, it is perfectly safe.

Now, if all this was known at the period named, the question naturally arises, — What new discoveries of the therapeutical properties of the plant have been made since that time? By turning to Dr. Norwood's pamphlets, we shall find that he has discovered the first four previously known facts — where and when, it is not for me to decide — and, that he has availed himself of the *fifth* or last, to demonstrate the truth of the *first four*. In this pursuit he has displayed a boldness and an energy of purpose that commands our admiration. With the remedy in hand, he fearlessly grappled with the terrific fevers of the south, and defied their terrors. The heart, that troublesome organ

to most physicians and patients, was as completely under his control as was the door of the enchanted cave under that of the "open" or "shut *sesame.*" Can we wonder that he should triumphantly declare —

> "In 1850, we determined to announce to the world the fact *that the great desideratum had been discovered; an agent by which we can emphatically say to the heart and arteries, thus fast shalt thou go and no faster.*"

Nor can we wonder, when alluding to his conquests over typhoid fever, that he should declaim in the following *eloquent and impressive manner:*

> "Might we not ask with emphasis, what country, what community has not felt and heard of the destructive mortality following in its wake? And has not the cry been echoed back by every tongue and breeze — A remedy to stay the fell destroyer's progress!"

This remedy, Dr. NORWOOD assures us, he has found in the Veratrum Viride; and, as far as I know, he is entitled to the exclusive honor of whatever merit belongs to this discovery, especially as Drs. TULLY and OSGOOD hesitated to employ it in "the low typhoid" conditions of disease prevalent in New England.

But this is not all the credit that justly belongs to Dr. NORWOOD. He has really added to the information previously communicated, by proving that in all its essential effects the Veratrum Viride is unlike the other veratrums; he has widened the field of knowledge respecting its influence upon the circulation, and announced its applicability to almost every febrile or inflammatory disease; he has shown, contrary to the earlier opinion, "that it is one of the most certain diaphoretics belonging to the materia medica"; and, above all, he has thoroughly tested, and induced others to test, its powers in a great variety of cases, by which means a knowledge of the remedy has been brought to the door of almost every physician in the country.

With due allowance, therefore, for Dr. NORWOOD'S enthusiasm on the subject, although we can not regard him as the original discoverer of the leading properties of the medicine, enough has been said to show that he has rendered an important service to the Profession. His apparent want of magnanimity to an "elder brother of the craft" can only be excused on the supposition that he was ignorant of the contents of OSGOOD'S article. If this was the fact, the mere question of originality is of minor importance. SIDNEY SMITH justly remarks:

> "That man is not the discoverer of any art who first says the thing; but he who says it so long, and so loud, and so clearly that he compels mankind to hear him — the man who is so deeply impressed with the importance of the discovery that he will take no denial, but, pushes through all opposition, and is determined that what he thinks he has discovered shall not perish for want of a fair trial."

I have no apology to offer for the lengthy quotations, and frequent references to Dr. OSGOOD which appear in this article. As the remedy which has of late received no small share of medical attention, has but recently been reclaimed from the forgotten treasury of the past, there is a manifest propriety in reclaiming, also, the equally long neglected and forgotten history of that remedy.

The question has been asked — Does the Veratrum Viride possess any stimulating power, like other narcotics, or, is its action on the nervous, and hence upon the vascular system, exclusively sedative?

In the widely extended field of Materia Medica and Therapeutics, almost every writer and teacher has a theory of his own, depending upon his peculiar views of the *modus operandi* of medicines; and it is charitable, at least, to presume upon a laudable ambition to render the complex subject of classification as simple and comprehensive as

possible. As that portion of Dr. TULLY'S work on Materia Medica which contains his observations respecting the influence of Veratrum Viride upon the living body has not been published, we can learn his views, at present, only from the information furnished by OSGOOD. We have his authority for stating that Prof. TULLY classed the plant with the narcotics—"acrid narcotic." Had MURRAY and PARIS succeeded Prof. TULLY, they would have left it in this class; while a few years earlier, CULLEN and YOUNG, under similar circumstances, would have transferred it to their list of sedatives. That it produces effects when given in *small*, and also in *extreme* doses, analogous to those observed in the action of what are usually called narcotics, is, with one remarkable exception, unquestionable; but that it rarely, if ever, produces sleep, dimness of sight, dilatation of the pupils, vertigo, coma, or torpor, when administered in *medium* medicinal doses, is equally true; as before the sensorium can be brought under its more profound, or poisonous influence, the stomach sounds the alarm, almost realizing the presence of CULLEN'S "tutelar deity," the Vis Medicatrix, and incessant nausea or vomiting warns the most careless that now is the time to administer the antidote. My experience coincides perfectly with that of OSGOOD, NORWOOD, and others, that the nausea and vomiting can be promptly arrested, and the general symptoms of depression as invariably removed, in a few hours.

When given in doses that have but little or no appreciable influence on the pulse, or temperature of the body, it increases the appetite, and when the doses are cautiously enlarged, and steadily kept below the nauseating point, it is deobstruent or alterative, silently working its way to the secretory organs, and increasing the activity of their functions, especially of the liver. Now, it is difficult to account for these effects without attributing to the medicine more or less stimulating properties, which, however, are merged,

when, by still further increased doses, its sedative power is fully developed.

Dr. NORWOOD says it is "nervine"—an "arterial sedative, not narcotic under any circumstances." To enter into an elaborate discussion as to whether it should be called a sedative or a narcotic would be a mere waste of words. I can not better illustrate this part of the subject than by presenting cases in which the drug was taken in excessive, or what may be considered as poisonous, doses.

CASE I.—*Communicated to the writer by his friend*, Dr. WILLIAM UPJOHN, *of Hastings, Mich.* Mrs. S., aged about thirty-eight years, of sanguine nervous temperament, while engaged in washing at one of the hotels in this place, feeling somewhat tired, procured from a cupboard what she supposed to be a vial of paregoric. Turning out nearly a teaspoonful by measure, she took the same, and resumed her work. In a few minutes, a sensation of coldness, trembling, dull headache, vertigo, partial blindness with a feeling of oppression "*gathering round at the heart*," as expressed by her, led to the suspicion that she had, through mistake, swallowed something of a poisonous nature. This proved to be Norwood's Tincture of Veratrum Viride. At the suggestion of those around her, she chewed some tea, taking likewise some salt and vinegar. With the assistance of another woman, she proceeded to her own home, a distance of about twenty rods. Sinking down at the door, some warm water was given to her, after which vomiting occurred. On my approaching her, although general listlessness prevailed, *she expressed fears that she should not recover.* Her appearance denoted extreme prostration; complete relaxation of muscular fibre; surface cold and moist, with a blue or purple tinge over the hands, face, and particularly on the lips. Pulse and breathing very slow; the inspirations, after a short interval of rest, being performed rather spasmodically.

Treatment.—Opium, hot brandy sling, mustard, sinapisms, and frictions with flannel. The vertigo and partial blindness continuing, she remained in bed. The succeeding night she slept well, feeling much better the next morning. A day or two sufficed to free her from any bad effects of the drug.

At the conclusion of his description of this case, Dr. UPJOHN remarks, that Mrs. S. had been subject to occasional attacks of spasmodic asthma, occurring once in two or three weeks, from which she has been entirely exempt

ever since the taking of the Veratrum, now more than a year, and attributes her immunity to that alone.

CASE II. — *An experiment made by* DR. OSGOOD *on himself.* At 12 o'clock M., I took two grains of the finely pulverized extract. At 1, began to experience a slight sense of uneasiness at the stomach, but not amounting to nausea. This uneasiness at the stomach, though so slight as to be attended with very little inconvenience, continued till about half past one, when vomiting commenced. The contents of the stomach were thrown off without nausea, but with a sense of rising in the œsophagus, which, perhaps, might be compared to the rumination of animals. Judging from my sensations at the time, should suppose the muscular fibres of the stomach contracted gradually and steadily upon its contents, until they were expelled, the diaphragm and abdominal muscles remaining entirely inactive. After the vomiting had continued a considerable length of time, it appeared to be more the effect of spasmodic action, and was attended with chills and coldness of the whole body, but moisture of the skin. At the expiration of about an hour, vomiting ceased, and was followed by dimness of sight, dilatation of the pupils, vertigo, faintness, and somnolency, pulse at the wrist 40 in the minute, and scarcely perceptible. I then took 25 minims laudanum, and fell asleep. After the lapse of an hour, awoke with a continuance of the same symptoms, together with a dull pain in the epigastrium, and immediately repeated the laudanum. But finding the dimness of sight increasing, and on motion of the body, or turning the head, amounting almost to blindness, a sensation of stiffness in the voluntary muscles supervening, particularly the temporal and extensors of the head, together with considerable general prostration, the dose of laudanum was doubled. This produced a partial abatement of the symptoms, and, after another similar interval, was repeated, with half a gill of brandy, which soon effected entire relief. In connection with these symptoms, it should be observed that I am unusually susceptible to the operation both of narcotics and emetics.

CASE III. — *From the same authority.* The individual to whom I have alluded as also taking this extract, may perhaps be considered as at the other extreme in the range of susceptibility. He commenced, at 9 o'clock in the evening, with two grains. In ten or fifteen minutes, slight uneasiness at the stomach; at half past 9 took four grains more; at 10, a sensation of something like a ball rising in the œsophagus, which seemed to extend up as far as the top of the sternum, as if propelled by a gradual tonic contraction of the stomach. At a quarter past 10, vomiting commenced. This was attended with very little inconvenience at first, but after continuing a short time became more severe, the ejections consisting principally of bile; together

with the vomiting, there was much ineffectual retching; almost constant hiccough; chilliness; dimness of sight; vertigo; inability to control the voluntary muscles; distress at the stomach; pulse small and creeping, and 34 in a minute. As these symptoms were becoming more aggravated, he took a half drachm of laudanum, and went to bed—scarcely able to walk. In ten or fifteen minutes, the laudanum was repeated, which soon produced sleep. In the morning was apparently in better health than he had been for several months. At 7 the same morning, three grains more were taken; at 9, complained of a confused sensation in the head, and almost an entire loss of power of the gastroenteric muscles. At 12 M., three grains more were taken, and at half past 12, all the muscles of the fore arm were affected in the same manner. At 1, vomiting; pulse 40; and other symptoms essentially the same as the day before, excepting a less degree of chilliness. At half past 2, took 45 minims laudanum, and in the course of two hours, the effects of the medicine entirely subsided, excepting the inability of using the gastroenteric muscles. At 11 in the evening, two grains more were taken, which, in about three-quarters of an hour, produced vomiting like the other cases, but without any appreciable narcotic effect. The freedom with which the extract was taken, was not in conformity with my request, as I had previously tested the effects of two grains on myself. My wishes, however, were overruled in the confidence he had in his own powers of withstanding the effects of narcotic agents.

The extract used in these trials was made by expressing the juice of the recent root, and inspissating in the sun. The experiments were made before the extract had been used as a medicine. In Dr. O.'s own case the quantity taken was from four to eight times more than his subsequent experience warranted him in recommending, as he directs from one-fourth to one-half grain for medium medicinal doses.

Whether the symptoms described in the above cases are not analogous to those produced by medicines usually classed as acrid narcotics, I leave to the common-sense of the Profession to decide. But I am by no means satisfied with any system of classification that has no place for the Veratrum Viride except among the acrid narcotics. The name does not convey a definite idea of its therapeutical nature. Whether Dr. TULLY has found the right

place for it in his new system, we shall learn hereafter. To him is awarded the honor of being the first to direct attention to it as a valuable medicine, and it is therefore probable that he has found a less equivocal position for it in his new, than he did in his old, and far less comprehensive, *lecture* system of classification.

While noticing the effects of this remedy, it is proper to call attention to the fact, that, neither in the preceding cases, nor in any others that have fallen under my observation, has there been the least evidence that the intellectual portion of the brain was materially disturbed by its action. The mind remained unimpaired, even at a time when the nervous system was brought under its direct poisonous influence. How far the depressing action of the drug can be carried without impairing the intellect we have no present means of knowing;—it is probable, that consciousness would be retained until the general exhaustion produced sleep, or the heart ceased to pulsate. The cerebral disturbances produced by intense fever and excessive nervous irritation, frequently observed during the progress of unchecked febrile or inflammatory diseases, must not be hastily attributed to the action of the medicine, as evidently was the fact in a case published in a September No. of the *Boston Medical and Surgical Journal* for last year.

There is another probable fact, which is worthy of attention, that it may be contradicted if it is not a fact. Among the thousands who have taken this medicine during the past four years, there is not a case on record, neither have I heard of an instance, in which death was caused by this remedy. That many have been badly frightened while under its influence, or when witnessing its effects, is probably true, but we have yet to learn the first case of death that can be legitimately traced to its action. Caution reminds that it is poison, and caution is right;—

that it may destroy life no one doubts—what active remedy will not, when improperly used? But, unlike some of the insidious narcotics, even when ignorantly administered it will not cause death silently, but will give unmistakable notice of danger, in time to avert the impending calamity.

This article having already occupied more space than was originally contemplated, I shall leave for a future occasion what I had proposed to say on the practical use of the Veratrum Viride as a principal, adjuvant, or collateral remedy in the treatment of various morbid conditions of the animal economy. Before closing, however, I desire to state, that the proper adaptation of medicinal agents to the changes or conditions constantly arising in the progress of disease, is one of the most difficult things a physician has to learn; and a want of this precise knowledge has done more to injure the reputation of some of our most efficient remedial agents, as bleeding and calomel, for instance, than all other causes combined. Speaking of calomel, Dr. Rush remarked, nearly a half a century ago, that the system must be brought to the mercurial point, before we can obtain the curative effects of this potent remedy; and this remark will apply with equal, if not much greater, force to Veratrum Viride. In recent febrile or inflammatory conditions of the organism we shall find cases of intense vascular excitement, which must be lowered by direct depletion with the lancet before the Veratrum can fulfill the desired indication. And, in those prolonged or secondary stages of acute diseases, where irritable debility, consequent upon a loss of vital power, is the cause of continued vascular excitement, alcoholic stimulants will be required to increase the strength of the vital powers generally, and to bring the system up to the point where the Veratrum can, by its specific agency, reduce the frequency of the pulse. There may be a seeming inconsist-

ency in this remark, but in reality there is not, as I have had ample occasion to learn, more than a year since, when treating some severe cases of scarlatina. In these, and other cases which will be referred to, should I find time to continue the subject, direct stimulants were necessary to increase the strength of the pulse, and enable the Veratrum to reduce its frequency, which it could not do, but rather augmented the nervous and vascular irritability, until the alcoholic stimulants by imparting temporary tone, brought the system to a condition where the irritating effects of the Veratrum ceased, and its specific action upon the heart and arteries, and upon the secretions, was favorably developed.

Although by no means inclined to hobbies or specifics in medicine, I have watched with deep interest the effects of this remedy in many cases of disease, yet I am very far from being familiar with all its therapeutical properties, or the conditions required for the development of its entire remedial powers. But I have witnessed enough of its salutary medicinal influence to convince me that it comes nearer than any other known remedy to the realization of the ideal of Dr. JOHN ARMSTRONG, the most practical and common-sense writer and physician of his day, who has left on record the following remark, as a leading idea of his mind:

"It is my settled opinion that some great discovery will be made in therapeutics, by which the treatment of most, if not of all, febrile diseases will be made much more simple and successful; for we frequently now only employ bleeding, purging, and other ordinary means, not because they are the best that can be discovered, but merely because they are the best which we know of in the present state of our imperfect knowledge. From the great power which certain narcotics possess over the nervous, and thence over the vascular system, it is highly probable that some agents of that tribe may yet be found, by which the dominion of medicine will be much extended."

(To be Continued.)

ART. LII.—Obstetric Case with Placenta Prævia.

By L. Boxheimer, M. D.

On the evening of the 19th of December I was called upon by a gentleman, with the request to attend a lady in her confinement, about three miles distance from this city. He was in great haste, and urged me to accompany him immediately, as the patient was in a very dangerous—in his own words, in a "dying"—condition, from excessive loss of blood.

On arriving at the place, I found Mrs. B. in a pale, exhausted condition, pulse small, very weak, and about 135 per minute. There was no apparent signs of labor-pains, but there was continued metrorrhage, with slight gushes at intervals, indicating slight uterine contractions.

The patient was at full period of gestation, being her second confinement—the first one passing off without any irregularity. I learned that she suffered somewhat from loss of blood, at intervals, during the last few weeks of pregnancy, and that, on the evening previous, having been taken with labor-pains, followed by considerable hemorrhage, a physician was sent for, who, after having examined the case, gave a few directions, and—left!

The patient growing worse during the night, liquor amnii being discharged, followed by excessive flowing, the same physician was sent for again early in the morning. After re-examination he pronounced it a bad case, but, instead of resolute, immediate action, where there was the loudest call for it, he recommended only cold water applications, and again left the poor creature to her own fate, with the statement that some length of time would be required before the patient could be delivered!

The woman suffered considerably during the day, and the consequent prostration was great, as above stated, when I

arrived at 6 o'clock P. M. By vaginal examination, I found the os uteri dilated to about the size of a dollar, the placenta adhering firmly to it, with the exception of a small portion detached by the shortening of the vaginal portion of the uterus, which accounted for the hemorrhage.

Immediate action being necessary under these circumstances, I proceeded at once to an artificial delivery. Succeeding readily, by a little manipulation with the hand, in dilating the os, I then detached one half of the placenta, entered the cavity of the uterus, turned the child by the feet, and effected its extraction with great ease, owing to the relaxation of the parts. The contraction of the uterus was induced by gentle rubbing with the hand, and applying a little sulphuric ether to the hypogastric region, and the afterbirth followed soon after.

The child was still born, the exhaustion of the mother great indeed, but reaction coming on gradually, she gave some hope for recovery for the first three days. On the fourth day, however, the pulse began to rise, and became feverish. The patient showed symptoms of delirium, which increased, and reached its height on the next morning, when she was quite delirious, and resembled perfectly a case of delirium tremens. She then began to sink, and died in the evening.

Cases with Placenta Prævia, particularly with perfect adherence of the placenta to the os uteri, are extraordinary, and we think it of paramount duty for the attending physician to pay the strictest attention, and be always ready for action in case of any emergency.

In the case above, we are much inclined to believe that, by timely and judicious assistance, the result might have been a different one.

ART. LIII.—Milk Sickness: Its Etiology, Pathology, Diagnosis, and Treatment.

By F. R. Waggoner, M.D.

The subject of this article being one, as I believe, but imperfectly understood by the Profession generally, and it having been my good fortune during the past few months to witness and treat a number of well-defined cases in my country practice, not knowing of a case except in the rural regions, I beg space in the Peninsular and Independent, to give to its readers and the Medical Fraternity the benefits of my observations and experience on a subject, to me, of great interest, and I think of vital importance to the Profession, hoping that it may prove of worth to some young Esculapian brother in the management of a fearful and often, in the hands of some, a fatal malady.

Etiology.—Its cause or origin is a subject of much speculation. Medical men are as varied and differing in their opinions and conclusions as the non-professional and common observers. But, from the many hypotheses of its origin, but two, viz., the vegetable and telluric, carry with them any degree of plausibility.

The former of these is vindicated by a respectable and enlightened portion of the Profession. They say, that a certain species of vegetable, it not being known, abounds in the wood-land, and is matured by the latter months of summer, or first autumnal, at which season of the year the grass of the prairies becomes dry and tough, when the cattle resort to the timber for sustenance, feeding upon it, and, as the cow brute is very susceptible to its toxical influence, often sicken and die, while others, perhaps eating a less quantity, pass the season without ever showing signs of being poisoned by it. From such, careless and unsuspecting persons, using from day to day the milk,

butter, and flesh of these animals, often fall victims to the disease.

Other observers, equally entitled to credence, contend that it is, as I intimated, of a *telluric* origin. Rising from the earth in the form of a vapor; or the nocturnal vapors, being conducting mediums, depositing during the night on the herbage, then communicated as in the former case.

I repeat these are hypotheses that are warmly discussed by men of extended observation and research. But, so far as my knowledge extends, I am forced to support the latter. Many facts can be adduced in support of its earthy, or telluric, origin, but a few will suffice for the present.

Where stock cattle, for instance, are kept pent up until after the morning's dew, are never affected, though they are pastured where it is known to abound. Again, if feed, in the form of bundles of hay or fodder or sheaves of oats, have been cast on the surface of the earth where it was suspected to exist, fed to calves, or a calf, during the morning, while wet with dew, the result being the death of the animal.

Facts like these are, to my mind, evidence conclusive of its origin in the form of vapor. But let it originate from whence it may, it is only known in timbered land, and there disappears, after once cleared, cultivated, and seeded with tame grass; which shows, again, if of a telluric source, the toxical agent lies near the surface, and is destroyed by being shifted from its lurking place.

The length of this communication already admonishes me to say no more on its etiology.

Pathology. — In regard to this point I can say but little upon my own responsibility, as I have never made an analytic examination of the fluids; neither have I been permitted to make any *post-mortem* examinations of the vital organs. But judging from a clinical view, and from

various manifestations, I conclude the *materies morbi* first enters the circulation, disorganizes the blood, which in turn passing through the nervous centres, producing prostration, languor, and other nervous pneumonia, not far removed from those witnessed in the typhoid grades of fever. According to some observers, after death the spleen is found dark and congested, the brain softened, and the blood uncoagulated; showing a deficiency of plastic or coagulable lymph, though much, in my humble opinion, is yet vailed from the eye of the pathologist.

Diagnosis. — No one that has ever once seen a case of the disease can fail in making a correct diagnosis. The physician is scarce ever called upon until the patient is in the second, or acute stage, of disease. He generally finds the unfortunate sufferer with high gastric irritation, nausea, and vomiting. The stomach, no doubt, is much congested. The bowels are *uniformly*, *obstinately* constipated, and very tender upon pressure, sometimes swollen and pulsating, Professor DUNGLISON to the contrary, notwithstanding. In his *Medical Dictionary*, under the term "Milk Sickness," he writes thus:

> "The symptoms of the disease are such as are produced by the acro-narcotic class of poisons — vomiting, *purging*, and extreme nervous agitation."

No thing can be farther from the truth than there being *purging* in any stage of the disease. In no case has it occurred that has fallen under my observation, nor the observation of other professional men in localities where it abounds of extended knowledge in the disease, from personal observation. I thus boldly speak that others, unexperienced, may not be misled by such statements.

Tinnitus Aurium, languor, and prostration are nearly always present. The pulse is generally accelerated, but weak; tongue much swollen and unwieldy, generally slightly

coated with a dark brown fur; face flushed; eyes swollen, and much congested and red. The breath has a very peculiar fœtor; it is pathognomonic — an unmistakable evidence to the experienced olfactories. Extremities generally cold and clammy. A burning thirst, and constant desire for water.

Such is a synopsis of the most striking diagnostic symptoms.

Treatment. — There are three prominent indications to fulfill: 1. Palliate the gastric irritability, allay vomiting nausea; 2. Evacuate the bowels; 3. Support the patient.

The first of these indications is best fulfilled by frequent and full doses of the sulphate of morphine, together with the use of soda powders, etc. Also counter-irritation over the præcordium is of incalculable value in allaying the vomiting. An evacuation of the bowels is most easily attained by the use of mild and unirritating cathartics. Oleum ricini, pulv. rhei, and the saline purgatives — sulph. magnesia, sodæ et potassæ, tartras, are the most potent agents. Drastic and irritating cathartics should be scrupulously avoided, together with the mercurials.

A few years ago the latter of these agents, mercury, was used to a great extent, but always attended, I believe with bad results.

After thus succeeding in filling the two first indications we should have recourse to tonics and stimulants. The sulph. quinia in large, *very large*, and repeated, doses is, without doubt, the *sine qua non* at this stage of the treatment — though many other tonics are not without their beneficial effects.

Stimulants are of great importance. The alcoholic are much preferable to all others — and the amount that can be tolerated is truly alarming. A patient I visited a few weeks ago had taken to the amount of a half gallon of whiskey within the past forty-eight hours, without any

intoxicating or appreciable effects. The patient was a lady of medium size and stature — of nervous temperament. The vomiting had ceased, and the bowels had been evacuated by the use of some domestic agent. I at once had recourse to quinine.

℞. Sulph. Quinia . . . 35 gr.
Sulph. Morphia . . ½ "

M. Divided in seven equal portions; one taken every three hours. She convalesced within thirty-six hours. I also continued the whiskey, but very moderately.

I speak of no fatal cases, as my practice has been uniformly successful.

Oconee, Illinois.

ART. LIV.—Meteorological Register for Month of December, 1858.

BY L. S. HORTON, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer.			Hygrometer			Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2	9	7 A.M.	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	29·20	29·20	29·15	28	36	33	26	33	31	·117	·149	·145	·76	·70	·75	S.E. 2	S.E. 2	S.E. 2	10.35 p.m.		
2	29·00	29·04	29·00	38	41	32	33	36	30	·117	·134	·144	·50	·50	·79	S.E. 2	S. 2	S.E 1			
3	29·00	29·00	29·00	30	33	28	27	30	25	·113	·132	·100	·67	·70	·65	S.E. 2	S.W. 2	S.W. 2			
4	28·90	28·80	28·75	33	35	32	30	32	30	·132	·142	·144	·70	·69	·79	S.W. 2	S.W. 2	S.W. 2		3, p.m.	·62
5	28·50	28·55	28·80	48	42	33	44	40	30	·226	·208	·132	·70	·75	·70	W. 3	W. 4	W. 3			
6	29·00	29·05	29·05	24	32	30	20	30	28	·062	·144	·130	·48	·79	·78	S.W. 2	S.E. 2	S.E. 1			
7	29·10	29·12	28·90	33	51	27	30	38	24	·132	·072	·095	·70	·19	·64	S.E. 1	S.W. 2	W. 3			
8	29·00	29·00	29·10	17	16	25	14	14	22	·048	·059	·084	·50	·65	·62	W. 3	W. 3	W. 2			
9	29·30	29·30	29·24	10	24	20	07	20	17	·026	·074	·060	·37	·59	·55	W. 2	W. 1	W. 2			
10	29·20	29·20	29·15	20	37	32	17	33	27	·060	·149	·084	·55	·70	·45	S. 3	S.W. 3	S.W. 2			
11	29·18	29·20	29·10	34	38	33	32	34	30	·155	·144	·132	·79	·62	·70	S. 2	S.W. 2	S.W. 2			
12	29·20	29·10	29·05	35	42	34	32	38	32	·142	·190	·155	·69	·73	·79	S.E. 2	S.E. 2	S.E. 1			
13	28·90	28·90	28·90	37	48	38	34	44	33	·157	·282	·116	·71	·72	·52	S.E. 2	S.E. 2	S. 1	9.35 a.m.		
14	29·00	28·98	28·98	36	44	33	33	40	30	·149	·195	·132	·70	·67	·70	S. 2	S. 2	S. 2		2, a.m.	·21
15	28·94	28·90	28·94	30	34	31	28	32	28	·130	·155	·119	·78	·79	·68	S.W. 2	S.W. 1	S.W. 1	2, a.m.	8, a.m.	·14
16	29·00	29·10	29·15	34	37	34	32	34	32	·155	·157	·155	·79	·71	·79	S.W. 2	S.W. 1	S. 1			
17	29·20	29·25	29·20	23	27	23	21	25	21	·090	·100	·090	·73	·65	·73	S.W. 1	S. 1	S.E. 2			
18	29·15	29·00	29·00	28	35	33	26	32	30	·117	·142	·132	·76	·69	·70	E. 1	S.E. 1	S.E. 2			
19	28·98	28·95	28·90	39	36	34	36	33	32	·173	·149	·170	·72	·70	·80	S.W. 2	S.W. 2	S.W. 2			
20	28·90	28·88	28·82	37	39	35	34	35	32	·157	·152	·142	·71	·63	·69	S.W. 2	S.W. 2	S.W. 1			
21	28·80	28·80	28·82	36	38	34	33	34	30	·149	·144	·121	·70	·62	·61	S.E. 1	S.W. 1	S.W. 1			
22	28·90	28·95	28·98	37	42	33	34	37	30	·157	·168	·132	·71	·65	·70	S.W. 2	S.W. 2	S.S. 1			
23	28·89	28·87	28·90	29	32	29	26	28	26	·106	·108	·106	·66	·59	·66	S.W. 2	W. 2	W. 1	4.25 p.m.	10, p.m.	·04
24	28·90	29·00	29·20	27	32	31	25	28	27	·112	·108	·101	·76	·59	·58	S.W. 2	S.W. 2	S.W. 1			
25	29·40	29·38	29·35	31	34	32	28	31	28	·119	·139	·108	·68	·71	·59	W. 1	S.E. 1	S.W. 1			
26	29·34	29·36	29·30	34	38	33	32	33	31	·151	·136	·151	·80	·61	·80	E. 2	S.E. 2	S.E. 1	5.30 a.m.	7.20 p.m.	·18
27	29·25	29·20	29·18	31	35	32	28	32	30	·119	·142	·144	·68	·69	·79	S.E. 2	S. 2	S.W. 1			
28	29·15	29·12	29·10	28	35	32	25	32	28	·100	·155	·108	·65	·79	·59	S.E. 1	S.E. 1	S.E. 1			
29	29·00	28·99	28·98	35	35	34	33	32	32	·162	·142	·155	·79	·69	·79	N.E. 1	E. 2	E. 1	4.15 a.m.		
30	28·98	28·95	28·90	34	34	32	32	32	30	·155	·155	·144	·79	·79	·79	E. 1	E. 2	S.E. 1		10. p.m.	·28
31	28·90	28·90	28·90	37	35	34	34	33	32	·157	·149	·155	·71	·70	·79	S.W. 2	S.W. 2	W. 1			

Bibliographical Record.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION. Instituted 1847. Vol. XI. Philadelphia: Printed for the Association. Collins, Printers, 705 Lodge Alley. 1858.

The above volume is just received, consisting of 1027 pages, printed on substantial white paper, in good type, and fairly bound in cloth. Its contents consist of the Minutes of the Eleventh Annual Meeting of the Association; Report of the Committee of Publication; Report of Treasurer; Address of the President, Dr. Paul F. Eve; Report on the Medical Topography and Epidemic Diseases of Kentucky, by W. L. Sutton, M. D.; do. of New Jersey, by Lyndon A. Smith, M. D.; do. of Ohio, by Geo. Mendenhall, M. D.; Report of the Committee on Medical Literature, by A. B. Palmer, M. D.; Report of Special Committee on Medical Education, by Jas. R. Wood, M. D.; Report on Spontaneous Umbilical Hemorrhage of the Newly-Born, by J. Foster Jenkins, M. D., Yonkers, N. Y.; Report on Influence of Marriages of Consanguinity upon Offspring, by S. M. Bemiss, M. D., of Louisville, Ky.; Report on the Functions of the Cerebellum, by E. Andrews, M. D., Chicago, Ill.; Report on the Treatment best adapted to each Variety of Cataract, by M. Stephenson, of New York; Report on the Medical Jurisprudence of Insanity, by C. B. Coventry, M. D., of Utica, N. Y.; Report on the Law of Registration of Births, Marriages, and Deaths, by Edward Jarvis, M. D., Dorchester, Massachusetts; Report on the

Nervous System in Febrile Diseases, and the Classification of Fevers by the Nervous System, by H. F. Campbell, M. D., Georgia; Report on Moral Insanity, by D. M. Reese, M. D., New York; Report on Stomatitis Materna, by D. L. M'Gugin, M. D., Iowa; Report on the True Position and Value of Operative Surgery as a Therapeutic Agent, by J. B. Flint, M. D., Kentucky; A Method for Preserving Membranous Pathological Specimens, by R. D. Arnold, M. D., Georgia; Letter of E. D. Fenner, M. D., to President of Association; the Prize Essays,—The Clinical Sounds of the Heart, by Austin Flint, M. D., of Buffalo, N. Y.; Vision, and some of its Anomalies, as revealed by the Ophthalmoscope, by M. A. Pallen, M. D., of St. Louis, Mo.; Plan of Organization of the American Medical Association; Code of Ethics of the Association, and a List of Officers and Permanent Members of the Association.

A Report of the proceedings of the meeting at Washington was given in our June No., and nothing farther on that subject need be repeated here.

The Reports of the Committee of Publication, and of the Treasurer, show the Association to be in a healthy condition financially, while a considerable number of volumes of Transactions of former years are on hand, particularly of Vols. V., VII., VIII., and IX.; which last four will be sold collectively for $5 remitted to the Treasurer, while any of the other volumes of *former* years will be sold to permanent members at $2 apiece.

The eloquent address of the late President, Prof. Eve, was noticed in our account of the proceedings, and extracts given from it, which will render any further reference to it unnecessary.

The Report upon the Medical Topography and Epidemic Diseases of Kentucky, we have been much interested in. Dr. Sutton has given valuable accounts of the topography of a large portion of the State — the face of the country,

its altitudes, fertility, amount and quality of water, geological formations, and mineral productions. He has also presented interesting reminiscences of the settlement of the State, and the early habits of the people, as well as accounts of their present conditions and relations — presenting a more favorable view of the relations of masters and slaves that some will be inclined to credit his statement "that there is a somewhat shorter life to the slave than to his master."

Accounts of its climate and medicinal waters are given quite at length, when a history of its Epidemics is entered upon, commencing with the "Jerks" or, as called by some, *Epidemic Epilepsy*, connected with a religious excitement commencing about the close of the last century, and continuing several years, presenting many curious phenomena of the nervous system, varying in form, and of an intense variety, but similar in general character to other epidemic, endemic, and sporadic affections, dependent upon morbid sympathy, under religious and animal excitements. When a profounder and more general knowledge of the nervous system — its physiology and pathology — is obtained, the phenomena of religious trance, of whatever there is true of what is called *Animal Magnetism* and "*Spiritualism*" will be referred to the same general laws. The subject of Milk Sickness is next discussed, and the doctrine of its malarious origin seems to be favored.

But the most important part of the Report consists of a series of elaborate tables, showing the mortality in different regions, and the relations and geological formations and other topographical circumstances of seasons, &c., in different forms of disease. It is found that the zymotic diseases are by far the most fatal, and among these, Scarlatina stands the highest in many localities.

The Report on the Epidemics of New Jersey, from the neglect of the members of the Profession to respond to

the circulars of the reporter, is not elaborate, and contains little of special interest.

That upon the Epidemics of Ohio is very brief, and is presented merely as an addition to the previous more elaborate papers from the same author. Dr. MENDENHALL states that a registration law passed by the Legislature in 1856 for the purpose of furnishing statistics of births, marriages, and deaths, from culpable inattention on the part of those whose duty it was to furnish blanks and collect information, has brought to the knowledge of the Committee nothing worth reporting. The Report recommends that Congress be petitioned to pass a law by which a uniform system of registration may be adopted by all the States, for the purpose of obtaining correct vital statistics by those whose duty it may be to take the census in 1860.

The Report on Medical Literature (including an Appendix of 10 pages, which contains a list of all the recent medical publications in this country known to the reporter), consists of 60 pages. It gives a general account of our periodical literature — of original American publications for the last two or three years, and discusses with some elaboration various questions connected with the improvement of American medical productions. The question of the expediency and justice of an International Copyright Law receives considerable attention; various reasons being given why our people, through their representatives do not enact such a law.

The Report of the Special Committee on Medical Education was quite largely extracted from on a former occasion, and its recommendations need not now be repeated.

The Report on Umbilical Hemorrhage of the Newly-Born is an extended and able document, affording a greater amount of information on the subject than we know of existing in a compact form anywhere else.

A large number of original facts, and a great mass of very important information are accumulated in the Report on the Influences of Marriages of Consanguinity upon Offspring. This document will long be used for reference, establishing, as it does, the fact that "*pari-passu* with the increment of the same blood, the sum of defects of offspring is likewise increased." These offspring are specially liable to be Idiotic, Deaf and Dumb, Blind and Insane, and in the order of frequency named.

Our friend, Dr. E. ANDREWS'S Report on the Functions of the Cerebellum, is a highly scientific production, the evidences of the positions taken being furnished from Comparative Anatomy, leaving experimental and pathological observations for future occasions. The position of CARPENTER and others, that the chief function of the cerebellum is to co-ordinate motions — or rather "that the size of the cerebellum is in direct ratio with the number and variety of co-ordinated movements which the animal is capable of exercising" — is controverted; the fact being shown that within the limits explained, "*the size of the cerebellum is directly as the quantity and power of muscular fibre to be moved, with no regard whatever to the simplicity or complexity of their combinations.*" The examination of the subject tends to show that the median lobe expends its influence upon the muscles of the anterior half of the body, while the influence of the lateral lobes is exerted upon the posterior half. These announcements, it is presumed, will not fail to arrest the attention of physiologists generally.

The Report on Cataract we have not had time to examine with care, but it seems to have been drawn up by one familiar with the subject, and appears to be a discriminative and useful paper.

Dr. COVENTRY'S Report on the Medical Jurisprudence of Insanity is a well-written document of 52 pages, pre-

senting with clearness the opinions of experts and of courts on the important points involved in the subject. It is a paper which will be of great use to physicians who may not have access to more elaborate works, but who may be called upon to give testimony in court respecting the insane. Dr. Bucknill is mentioned in the Report as being opposed to the doctrine of Moral Insanity. Such, certainly, is not his position as evidenced in his late work. But as we have lately, in reviewing that work, stated his position, and discussed at some length the point in question, we shall refrain from further remarks. The Profession are under obligation to the author of this paper for its presentation in this accessible form.

We have been much interested in Dr. Jarvis's Report on Registration of Births, Marriages, and Deaths. Though brief, it is to the point, and in its suggestions and nosological classifications of diseases it will materially assist those engaged in attempting to secure the passage and execution of laws on this subject in the several States.

Dr. Campbell's Report on the Nervous System in Febrile Diseases is a lengthy production of near 200 pages, requiring to be carefully read before any opinion of its merits can be formed. We have not had the time for such a reading, and for the present, at least, must pass it over. We will simply say, in passing, that we are gratified that Dr. C. is pursuing the subject of the influence of the nervous system in disease with so much zeal, as we are convinced that the prevailing chemical and mechanical doctrines of the present day have not given sufficient prominence to the influence of this system.

Dr. Reese's Report on Moral Insanity and its relations to Medical Jurisprudence, endeavors to establish the doctrine that there is no such thing as Moral Insanity in the sense of the Moral Faculties, — the sentiments and the will, being so diseased as to render the patient irresponsible,

without disease of the intellect. He says the idea that "the mental health is sound while the moral health is suspended or destroyed, implies a duality in the mind, which psychology never dreamed of." Now, whether the reporter has sufficiently devoted himself to this subject, or has the necessary mental and moral constitution to clearly appreciate these points and render him a competent authority, we shall not attempt to decide—but it seems to us that the view above expressed, if carried to its legitimate results, would exclude the doctrine that any of the mental faculties may be diseased without involving all the rest—yet it is universally admitted that some faculties of the mind may be diseased while others are in a state of integrity. If not, there is no such thing as monomania. But we have not time and space now to pursue the subject. The paper manifests a degree of ability, and will be read with interest.

The Report on Stomatitis Materna was drawn up by a gentleman who has had the subject some time under consideration, and it may be presumed to contain the present state of knowledge upon it, but from a hasty examination we have failed to find anything novel or particularly striking.

The paper on Operative Surgery as a Therapeutic Agent seems to be a protest against what the author calls "dramatic surgery," and a plea for that "conversative surgery" which has in view the good of the patient rather than the glory of the surgeon. These ideas are doubtless worthy of the attention of all who have an ambition for distinction as operators.

A short voluntary paper upon a Method for Preserving Membranous Pathological Specimens—consisting of washing in cold water, stretching upon a pane of common window glass, sprinkling with dry arsenic from time to time, as long as any will be absorbed, and, when dry,

the whole coated with white varnish — brings us to the Prize Essays, a notice of which must be reserved for a future occasion.

Dr. J. Marion Sim's paper on the "Treatment of the Results of Obstructed Labor," read in part before the Association, from some cause not explained does not appear in the Transactions; neither do we find the paper of Dr. Davis, of Chicago, which was present, and offered at the meeting, though not read. We think the reasons of these omissions should have been stated by the Publication Committee. If there is fault in the matter, the Profession would like to know where it is. A. B. P.

LECTURES ON THE DISEASES OF WOMEN. By Charles West, M. D., Author of "Lectures on Diseases of Children," Fellow of the Royal College of Physicians, &c.

The present volume is Part Second, containing twelve lectures, embracing Diseases of Parts connected with the Uterus, — the diseases of that organ itself having been treated of in Part First.

Nothing need be said to commend these Lectures to the attention of the Profession. No one, certainly, who has been familiar with his former works — particularly his classical work on the Diseases of Children, will need to be told that his subject is thoroughly digested, and presented in a style at once concise, clear, and agreeable.

We are under obligations to the enterprising publishers for this as for many other European works presented to American Physicians in a cheap and accessible form.

A. B. P.

A PRACTICAL TREATISE ON THE DISEASES OF CHILDREN. By D. Francis Condie, M. D., etc. Fifth Edition, Revised and Enlarged. Philadelphia: Blanchard & Lea. 1858.

Dr. Condie's work on Children has been several years before the Profession; and from the fact that a new edition

has been called for once in three years, the inference is legitimate that it has been largely appreciated.

The object of the author has been "to present a complete and faithful exposition of the pathology and therapeutics of the maladies incident to early life — a full and exact account of the diseases of infancy and childhood," and in furtherance of this, the present edition "has been subjected to a careful and thorough revision—a considerable portion of it having been entirely re-written, and several new chapters added."

The industry of Dr. CONDIE can not be questioned, and it is presumed he has incorporated the principal modern discoveries in the pathology of this interesting class of diseases. Respecting some items of the author's therapeutics there are of course, differences of opinion, and this subject may be referred to again.

The present edition will doubtless be largely purchased and read as have been the former. A. B. P.

THE INSTITUTES OF MEDICINE: By MARTYN PAINE, A. M. M. D. LL. D. Professor of the Institutes of Materia Medica in the University of the City of New York, etc. etc. etc. With a Portrait. New Edition (fourth) revised and enlarged, with a Copious Index. 8vo. pp. 1096. Published by Harper & Brothers.

THIS work in its present revised form has been already favorably noticed in most of the Medical Journals in this country — now it comes to us with a correction of its typographical errors.

We may safely say that this work is not second to any of the kind in the language, if any can be found of equal merit. It shows that the author is an indefatigable student. Nothing in Physiology or Philosophy, or anything belonging to the subject, has escaped his eye. A profound and methodical thinker and an erudite philosopher, Dr. PAINE has shown consummate skill in presenting his favorite and

truthful theory of *Vitalism*, as opposed to the chemical and mechanical doctrines of life, frequently bringing his subject to bear in favor of revealed religion, as opposed to materialism and sensualism. He has grappled with the abstruse subject of instinct, and the substantive immateriality of the human soul (which has escaped the notice of his reviewers). In proof, he has brought to view arguments entirely new, and we think unanswerable. The Doctor in placing this work before the public has done the Professors of Medicine and Theology great service. On this account the work should be found in every clergyman's library as well as that of the physician. The profound scholar and painstaking lover of truth will find a rich treat in reading this work.

The author gives notice of a work on Theoretical Geology, which he has now in manuscript, in which the subject, as presented in an article published in the *Protestant Episcopal Quarterly Review* (New York, April, 1856) has more fully elaborated. The fear entertained that his views will not receive the support and concurrence of the Religious Press prevents the publishing of the work.

If the same scientific and philosophical method of investigation is pursued as in the epitome found in the *Review*, the work will doubtless be found incontrovertible; and it is very much to be hoped that the work will be called for by the Press, as the author says, "such a work is on hand." N. D. S.

For sale by Doughty, Straw & Co.

SEMI-MONTHLY MEDICAL NEWS.

We have received the first No. of the *Semi-Monthly Medical News*, Louisville, Ky.; edited by Professors Lemiss and Benson of the University of Louisville.

Judging by its matter and appearance the NEWS promises to fill no mean place in periodical literature. Its salutatory is manly and independent, and we gladly add it to our exchange list, wishing its enterprizing editors success.

THE NEW YORK MEDICAL PRESS. A Weekly Journal of Medicine, Surgery, and the Collateral Sciences. Edited by J. L. KURNAN, A. B. M. D., and W. O'MEAGHER, M. D. New York. 1859.

No. 4 received. This new weekly is devoted (as per prospectus) to the interests of students and the Profession at large.

On looking over the matter of this No. (the only one we have received), we should say it was particularly a *Student's* journal, from the lengthy Clinical Reports contained in it. It has been placed on our exchange list.

MICHIGAN JOURNAL OF EDUCATION. Edited by ALEXANDER WINCHELL, A. M., Professor of Natural History in the University. Ann Arbor: Published by the Executive Board of the State Teachers' Association. 8vo. 40 pp.

No. 1 of Vol. VI. is out, and is one of the neatest specimens of the Typographical Art that our friend FLEMING has yet fathered. Under the energetic management of Prof. WINCHELL, we predict (safely, too) a valuable influence, and, what is quite important, a large subscription list.

BOOKS RECEIVED.

A Treatise on Human Physiology; designed for the use of Students and Practitioners of Medicine. By John C. Dalton, jr., M. D. Blanchard & Lea, Philadelphia.

A Treatise on the Venerial Disease, by Hunter and Ricord. Edited by Freeman J. Bonstead, M. D., 2d Ed. revised. Blanchard & Lea, Philadelphia.

The Science and Art of Surgery, by John Erichsen. Improved Am. Ed., from 2d London Ed. Blanchard & Lea, Philadelphia.

Editorial Department.

"The Medical Department of the University of Michigan, and Preliminary Education."

The above caption has figured in two or three of our cotemporaries of late, and seems to have furnished a theme of no little interest to those who have been induced from various motives to give attention to a portion of the proceedings of our Board of Regents in October last,—accounts of which were imperfectly presented in some of the daily papers, and officiously sent to those who it was thought might be inclined to attack the members of the Medical Faculty taking part in them.

The editor of the *New York Medical Gazette*, who seems to have an ear open and a hand ready for any one who, from whatever motive or however slight a reason, is inclined to make a complaint, presented, as our readers are aware, what was intended as a severe criticism upon two of our Faculty, based, as he afterwards acknowledged, upon distorted information and imperfect conceptions; and when the facts of the case were fully placed before him, he admitted an explanation, and, in a reply, expressed the opinion that the article furnished (the one copied from the *Gazette* in our December No.) "must satisfy all who take an interest in the subject"—that he saw not how we "could have done otherwise than remonstrate against the innovation proposed, as described in your [our] communication," declaring furthermore his willingnesss "to

do editorially whatever you [we] judge expedient." Nothing specifically was asked of him but the insertion of the article sent; but subsequently other parties obtaining that very willing ear (the internal evidence of this is too conclusive to admit of a single doubt), another editorial is perpetrated, quite as objectionable as the first, and much less excusable, as all the main facts were then before him. In this last, the editor says: "The case is worse than we had supposed, or had dared to intimate." This enormity, according to his statement, exists in the fact "that no inquiries are made into the qualifications of candidates for *admission* to the Medical Department of the University, as it has been judged unadvisable to apply the rule [respecting preliminary education] to the students of the first year."

Now, anybody, having a moderate knowledge of the Medical Schools of this country, knows perfectly well (and Dr. REESE has been a professor) that not a single institution of the kind, from Maine to Louisiana, requires an examination on preliminary education in order to admission to the lectures; and not a School excepting the Medical Department of the University of Michigan requires evidence of specific preliminary acquirements, save such as may be incidentally furnished by the presentation of a single thesis, for graduation.

We by no means approve of this state of things. We believe no young man should be allowed to enter a physician's office as a student, and of course not a Medical College, without furnishing evidence of a proper mental, moral, and educational fitness. This we have ever contended for, as our Report to the American Medical Association, and our editorials, will show. But a single School, acting alone, can not effect a revolution at once. Ours, in advance (so far as we know) of all others of the country, does apply a test of preliminary education to candidates

for graduation, though after giving them due notice, and during their second course of lectures. But the writer of this article, and his colleague, Prof. SAGER, who have been the subjects of these attacks, *did not object to applying a test of acquirement to students before joining the class.* We simply objected to requirements so far in advance of all rival Schools, of an amount of *Latin* which we believed not *essential,* and which if insisted upon, would drive away a large portion of our class to Schools where nothing of preliminary education was required, even for graduation. We preferred to erect a standard of requirements in our own and other *modern* languages, rather than the ancient. We preferred, as better still, after a thorough knowledge of our own language, an acquaintance with Nature — with the *truths* of the CREATOR, as expressed in the material universe, rather than the fictions of Men, as expressed in heathen literature. This point, the only important one at issue, the editor of the *Gazette* evades.

On the ground, not that such an amount of Latin was not *desirable,* but that it was not *essential,* we opposed its requirement. On the ground that it would be unjust to many of our citizens who wished to receive instruction in medicine, but did not wish to study Latin, we opposed it. On the ground that rival Schools required no such thing, and that our students would be driven from us, we opposed it; and, incidentally, we objected to having gentlemen in another department of the University judge of the qualifications of students for our own. The Medical Faculty think themselves capable of determining the fitness of students for their own department.

The refined (?) allusions about the "outer court of the temple being defiled," &c., need no reply. We are *responsible* for those to whom we grant diplomas, signifying their fitness to enter the Profession; while we will try to do no harm to those in this "outer court."

The Senior Editor of the *Chicago Medical Journal*—the organ of the Chicago School—refers to this subject, and in his usual spirit of unfairness and prevarication when speaking of us and our School, accuses us of deception, insinuating that in a controversy referred to, we pretended that our School required a standard of preliminary education, in order to admission to our lectures, while now we confess no such standard is required.

In that controversy we distinctly stated that our requirements of preliminary education were applied to those asking for a degree, but not to first-course students: and this is what our Catalogue also states. Our claim of being in advance of most of the other Schools was in the length of our lecture term, the thoroughness of our public and private examinations, the large number of written essays required, and the evidence of preliminary education for *graduation.* This Dr. DAVIS perfectly well knows—in that controversy it was stated over and over again, and all his "bosh" about "murder will out," is merely to produce *false* impressions.

The *Gazette* has also been induced to speak of adroit concealment on this point. There has been no concealment. All who have examined our Catalogue have known, and we wished them to know, for such has been the fact, that students could enter this department without furnishing evidence of preliminary education. In this respect we have been on a par with other American Schools. But it has also been known that in order to graduation such evidence must be furnished. In this respect we have been in advance of the other Schools. We protest against these false charges of deception, and hurl them back into the faces of whoever makes them. Both honor and truth require that we should emphatically say they are false.

The *Cincinnati Lancet and Observer* has also an article purporting to be editorial, reviewing our letter to the

Gazette. The writer of this article, the most open to criticism of any of the rest, has adopted a very convenient method of disposing of views of which he does not approve. He denounces them as "being weak and lame," as "behind the times," as "lowering the standard of Medical Education," etc. Of the strength and soundness of the arguments of the letter, those will judge who read it; and they certainly will know that the charge of "lowering the standard of Medical Education" is without foundation, and is therefore untrue. We repeat, that we simply objected to requiring a certain amount of Latin which is now nowhere in this country demanded.

It would be a waste of time and space to follow the article of the *Lancet and Observer* through its blundering course. The Editors are both Medical Teachers in Cincinnati, and one is Professor in the Ohio Medical College, of which institution this journal is regarded as an organ. To show whether they are governed by a zeal for Medical Education, or a desire to injure a rival, we would enquire whether that School requires a knowledge of Latin of *its* matriculants? Does it even require such knowledge of its candidates for graduation? Has it extended its sessions to six months? Does it require of its candidates the writing and public reading of seven theses? Do not students go from the University of Michigan to the Ohio College for the purpose of avoiding the ordeal they must here sustain? It is perfectly well known how these questions are to be answered. How then can this journal accuse us of lowering the standard of Medical Education? What madness of inconsistency—what shamelessness of effrontery —can induce even the admission of such an article into their pages? We can not believe that either of the editors wrote the article, though it be in the "Editors' Table." From their position it would seem impossible that they could have originated their own stultification. Besides, the

article possesses ear-marks — contains evidences of the author's mental peculiarities, which point very clearly to his identity. But nothing but a green-eyed jealousy and a disposition to make a thrust at a successful rival, could have so blinded the Editors and induced them to the admission of an article condemning themselves so much more than us.

It would doubtless be agreeable to the interests and feelings of several of our neighboring Schools if they could drive us into measures which would exclude the mass of our students, reduce our numbers below the standard of respectability, and ultimately close our doors. This would give them the field. But we are happy to inform them that our Board of Regents are disposed to adopt no such suicidal measures. The resolution giving rise to all this discussion, after the Faculty had unanimously reported upon it, was by a very large majority of the Regents, *indefinitely postponed.* It remains to be seen whether the fulminations of our interested neighbors will have the effect to call it back to life. That the time is not distant when a proper standard of preliminary requirements, adapted to the present condition of Medical Education among us, will be demanded of our matriculants, we are happy in believing. We are even desirous of taking the lead in this matter, as we have in several others. But we hope it will be temperate and judicious, and such as will induce other Schools to follow the example; — thus advancing, rather than retarding, the cause of "education and reform."

On the very grave question of the positive and comparative importance of a knowledge of the Ancient Languages, as a part of a general and Medical Education, we propose on some future occasion to offer a few suggestions. Possibly when that subject comes to be reflected upon and discussed, and the opinions of some of the wisest of men, both in and out of our Profession, be brought to bear

upon it, and, what is more important, when it is brought under the scrutiny of enlightened common sense, the heinousness of preferring living sciences to dead languages — of preferring a knowledge of *things* to a knowledge of *words*, will not be very conspicuous.

It will be noticed that this discussion has not been of our seeking. Our opinions were asked by the Board of Regents, and frankly given. For these opinions we have been repeatedly attacked, and vigorously belabored. In the consciousness of the strength of our position, we have no fear of consequences; and that we have the right to avail ourselves of our position in self-defense, no one can question. However considerable or trifling may be the results of the agitation, they must be held responsible who have induced it. A. B. P.

Anonymous Communications — Crepitant Ronchus.

We are not in the habit of receiving into our pages irresponsible communications, or, as a usual practice, noticing them in any manner. In the present instance, however, we depart from our rule, and insert the following complaint:

RIDGE FARM, Illinois, Dec. 20th, 1858.

DR. GUNN:

Dear Sir, — You will please excuse me for the liberty I have taken in thus addressing you, for I, too, am in favor of the principle of "rendering unto CÆSAR the things that be CÆSAR'S."

I have a copy of "Williams on the Chest," which was published in 1839, in which is an explanation of the cause of Crepitant Ronchus. In describing the various ronchi, he says:

"I believe that this sound depends on the forcible passage of air through a little viscid liquid in the finest tubes, narrowed by congestion and deposit around them."

Again, in the lecture on Pneumonia, he says:

"What is the condition of the extreme air-tubes and cells in the first stage of peripneumony? Are they not narrowed and partially obstructed by the enlarged vessels which are distributed between and

around them? And as the smallest tubes are narrower than the cells in which they terminate, may not the obstruction become such in them, that the air can force itself through the viscid mucus which lines them only in successive minute bubbles, the crackling of which constitutes the crepitation in question? This appears to me to be the true mechanism of crepitant ronchus," &c.

This may not be the explanation to which you allude, but if it is, you can see, by comparing dates, that Dr. WILLIAMS can claim originality over Dr. EDSON CARR, by at least *two years.*

Come, Professor, act on the *square*, and give unto "CÆSAR the things that be CÆSAR'S."

By the above quotation of our anonymous friend, it will be seen that Dr. WILLIAMS attributes Crepitant Ronchus to a succession of minute *bubbles.* His meaning is more clearly expressed in a later edition, from which we quote as follows:

"But what is the condition of the extreme air tubes and cells in the first stages of peri-pneumonia? They are narrowed and partially obstructed by the enlarged vessels which are distributed between and around them; and as the smallest tubes are narrower than the cells in which they terminate, it is easy to conceive that they are so far obstructed that the air can pass through the viscid mucus lining them only in successive *minute bubbles*, the *bursting* of which constitutes the crepitation in question."

[*Dissertation on Diseases of the Organs of Respiration.* Philadephia, 1841. Pages 220 and 221.]

Is there any doubt that Dr. WILLIAMS taught that Crepitant Ronchus was caused by the *bursting of minute bubbles* of mucus? We think not, and for this reason, in our notice of WATSON, we criticised his ascribing to Dr. WILLIAMS another view of the matter. Whether we read and understood WATSON aright may be seen from the following quotation:

"Let us inquire, for a moment, before we go any further, what is the nature and where the seat of this minute crepitation, so characteristic of the commencement of pulmonic inflammation. With respect to its *seat*, I apprehend, there can be no question. It proceeds from the very smallest ramifications of the bronchi, and from the air-vesicles themselves. The common opinion is, and such, I confess, is mine, that

the sound is the same in cause and kind, only different in degree, with the large and the small crepitation described in a previous lecture: that it results from the passage of air through liquid; from the formation and bursting in quick succession of a multitude of little air-bubbles. The bubbles are necessarily minute, for they are formed, and they explode, in very slender tubes. This is ANDRAL'S view of the matter. LAENNEC does not appear to have formed very clear notions on the subject. *But a different explanation* has been offered by a well-known and able writer on the auscultatory signs of disease, in this country: I mean Dr. C. J. B. WILLIAMS. He holds that the distended blood-vessels, and the interstitial serous effusion, press upon the minutest bronchial ramifications, and obstruct, without wholly preventing, the passage of the air through them: that these small tubes are lined by a viscid secretion, such as is expectorated, and such as I shall have to describe: that the sides of the tubes *stick together* in consequence of the presence of this viscid matter; and that it is the *separation of these adhering sides* by little portions of air which successively pass in and out, that gives rise to the characteristic sound. However, what it is important to remember is, that the crackling sound proceeds from the minutest divisions of the air-tubes, and from the ultimate vesicles of the lungs."

By the above quotation it will be seen that WATSON ascribes to ANDRAL the identical views contained in the quotations from WILLIAMS; while he says "*a different explanation* has been offered by a well-known and able writer"—*i. e.* WILLIAMS!

We next make the following quotation from an article communicated, by Dr. EDSON CARR, of Canandaigua, N. Y., to the *American Journal of Medical Sciences*, in October, 1842, and leave our readers to judge whether the views of WILLIAMS and CARR are identical or not; and we also submit the question: If WATSON, in his understanding of WILLIAMS, is not a "little mixed"?

"I believe that M. BEAU and Dr. WILLIAMS are quite correct in supposing that the bronchial membranes are somewhat dried by the existing inflammatory action, since one of the most manifest changes observed during the early stages of pneumonia, is a suspension of the aqueous exhalation from the bronchial membranes. Now, the suspension of this function necessarily leaves the mucus, with which the air passages are lubricated, in so thick and tenacious a condition that these membranes are glued together whenever they come in contact. The pulmonary

tissue, being more or less compressed by the descent of the ribs and the rising of the diaphragm, during every *expiration*, the bronchial membranes are, to a greater or less extent, forced into direct contact. The capillary congestion, and interstitial effusion, which are among the essential elements of pneumonia, must greatly increase the volume of the diseased lung, and consequently augment the compression of the pulmonary tissue and facilitate the adhesion or gluing together of the bronchial vesicles.

"Now, during every *inspiration*, the air rushing into and distending these vesicles, necessarily overcomes these cohesions. And would not the separating of these membranes, thus glued together by tenacious mucus, naturally produce such sounds as constitute the crepitant râle of pneumonia?"

In conclusion, we advise our readers, and particularly our anonymous friend, to moisten the tips of the thumb and forefinger with a little thick mucilage, and alternately close and separate them close to the ear, and see if a perfect simulation of Crepitant Ronchus is not produced. Note, too, the fact that Crepitant Ronchus is heard *only during inspiration.* Bubbles would burst as much during expiration as in inspiration. G.

Consequences of Errors in Dispensing Medicines.

FREDERICK ECKSTEIN, a prominent druggist of Cincinnati, has recently been mulcted to the amount of two thousand five hundred dollars, growing out of a lawsuit, wherein the plaintiff alleged that he was poisoned by a dose of Belladonna put up at Mr. ECKSTEIN'S store in place of Dandelion. He was prostrated for a time, but fully recovered.

We believe it is a fact that the impression of an overdose of any of the vegetable narcotics, if not fatal, although powerful, is not persistent, and that full and complete recovery immediately ensues, and we protest against the injustice of such a verdict, which awards ten times, at least, the damages received. The killing of a man of ordinary value to society, or the serious maiming of him for life by a railway accident, does not subject the corporation at whose door the

damages are laid, to such an expense, in nine cases out of ten; and why should a private individual be thus dealt with?

The truth is, that the uninformed public, from which juries are so often made, have natural and strong prejudices against those who make errors in the dispensing of materials so potent with life or death as those daily handled by the druggist. They can not be expected to appreciate the many circumstances, always occurring in such cases, which serve to control the judgment of those conversant more intimately with the *interne* of the dispensary.

This example may prove, we think, useful in opening the eyes of Pharmaceutists to the *pecuniary* responsibility attached to any error they may make, when the penalty of such mistakes is adjudged by a jury who naturally prejudge, as do the public, and always adverse to the dispenser.

It is a known result that however innocent an apothecary may prove himself to be in a case of this kind, the fact of his skill and accuracy having been called in question will thereafter prove a serious drawback to success. Therefore, it is true that business policy alone, aside from every other consideration, is one of the strongest safeguards to the public against errors in the dispensing shop; for it dictates, in imperious terms, to the understanding of every apothecary that he must employ every means in his power to prevent mistakes which may prove alike ruinous to pocket and reputation. Errors will occur in the practice of every art and profession —and they do occur in the dispensing of medicine—the consequences of which should be borne by the party guilty of causing them. Yet let the apothecary be tried by a jury of his peers—by his peers we mean, by men who know enough about the details of the business, to appreciate the many modifying circumstances occurring (almost always without exception), which will tend to render a verdict just and fair. F. S.

The Reviews and Blackwood.

We invite the attention of all lovers of choice periodical literature to the advertisement of LEONARD SCOTT & Co., on the cover of this and the last No. of the JOURNAL. As current records of the choicest literature of our age, they commend themselves to every intelligent man.

Our Prospectus.

Physicians will please notice the *premiums* offered by the Publishers in the Prospectus to Vol. II. of this Journal, which will be found on the last page of the cover.

A Word from the Publishers.

The issue of the next (March) No. completes Vol. I. of THE PENINSULAR AND INDEPENDENT, and we deem it incumbent upon us to tender our thanks to the many friends who have sustained us in this, to us, novel enterprize, and to assure them that unless unforseen obstacles appear, we shall continue its publication. We are anxious to increase our already large subscription list, and trust the matter and appearance of the present volume will justify us in expecting it.

The Editors, as well as ourselves, have noticed some few complaints made by those whom we know to be honest friends; and to all such we would say that we will do our best to steer our bark clear of the shoals on either side, and try and make the JOURNAL popular in as far as our influence extends.

It is gratifying to acknowledge here the scores of commendatory letters we have received.

Of all we respectfully solicit continued friendship and support.

HIGBY & STEARNS.

Selected Articles, Abstracts, &c.

Translations for The Peninsular and Independent.

By A. Sager, M.D.

RESEARCHES UPON THE ORIGIN AND THE CONDITIONS OF EXISTENCE OF EPILIPTIFORM CONVULSIONS, CONSECUTIVE TO HEMORRHAGE, AND ON EPILEPSY IN GENERAL. By A. Kussmaul and A. Tenner.

The authors of these important researches have adopted, as the motto of their work, the following remark of Esquirol, viz.: "Let us freely acknowledge that the progress of pathological anatomy has hitherto failed to throw any light upon the immediate seat of epilepsy. Yet let us not be discouraged; Nature will not always refuse a reply to her persevering interrogators." The authors think they have discovered a solution of the principal questions relating to that disease. I can entirely concur in this opinion. On the one hand, I believe that some of the solutions they announce as new do not belong to them; and on the other, that some are either erroneous or not satisfactorily demonstrated; some important questions, moreover, are still left without any solution. Nevertheless, they are entitled to the credit of having commenced the study of the phenomena of this disease with a profound knowledge of physiology (an indispensable condition), and by the aid of accurate experiments, and a comparison of the facts thus elicited with pathological data, have sought a solution of the principal questions connected with this disease. I must not omit to state, that if they have put forth opinions as new that I had previously announced it is only because they were not acquainted with what I had published in regard to it.

Want of space limits me to giving the conclusions of Kussmaul and Tenner, to which I will add a few critical remarks.

1. "The convulsions that supervene in cases of hemorrhage occurring in warm-blooded animals and in man, are similar to those which present themselves in epilepsy."

This opinion is by no means new; the analogy of these phenomena has been always recognized by physicians, and recently, Dr.

C. Bland Radcliffe has insisted upon the similarity of phenomena, because the fact has an important bearing upon his theories of muscular contractions and of epilepsy.

2. "Convulsions of the same kind occur where the current of arterial blood is suddenly arrested in its course to the brain, as by the ligation of the principal arteries of the neck."

3. "Epileptiform convulsions also occur when arterial blood becomes venous, as when a ligature has been applied to the trachea."

The resemblance of the convulsions of strangulation and those of epilepsy were long since shown by Marshall Hall. It remained to be shown why asphyxia, why ligature of the carotid and vertebral arteries, or why great hemorrhage produce convulsions similar to those of epilepsy.

4. "It is probable that in these different cases the occurrence of convulsions depends upon a sudden arrest of nutrition of the brain. It does not depend upon any change in the pressure which the encephalon experiences."

This is one of the fundamental points in the theory of Kussman and Tenner. By the aid of very interesting experiments they have arrived at conclusions very similar to those of several English physicians, especially Dr. Reynolds.

I shall not deny that a change in the nutrition of the brain may develop a poison capable, through excitation of that organ, of determining convulsions, but I believe it to be much more probable that these morbid phenomena are due to augmentation of the quantity of a substance formed in the capillaries of the brain, in consequence of of its stagnation during asphyxia, or a suspension of the current consequent upon hemorrhage, or ligation of the arterial trunks which distribute blood to the encephalon. The only substance thus known to be generated or perhaps which exists, is carbonic acid. This view of their origin I have presented in my work on epilepsy.

5. "Epileptiform convulsions which depend upon hemorrhage do not proceed from the spinal cord."

This proposition is not quite correct; the excellent observers to whom we owe this essay, were deceived by the fact that the rabbit, upon which species their experiments were chiefly performed, exhibits scarcely a trace of convulsions when, after excision of the cervical cord, hemorrhage is produced, or even when the circulation in the spinal cord is supressed without previous division, according to the method indicated by Kussmaul and Tenner. But in other animals, as the sheep, guinea pig, birds, and even sometimes the cat and dog, as observed by Marshall Hall and myself, convulsions do take place when the circulation is suddenly arrested in the spinal cord, and especially when that organ has been previously divided in the cervical region. To make the

proposition correct, it requires to be so modified as to state, that epileptiform convulsions due to hemorrhages are derived in but slight degree from the spinal cord.

6. "These convulsions are not of cerebral origin."

The correctness of this proposition I have demonstrated by a method different from that of our authors. I have removed the cerebrum from an epileptic animal, and the paroxyms continued to recur nearly as before the operation.

7. "The central seat of the convulsions is especially to be searched for in the part of the encephalon lying posterior to the optic thalami."

My own experiments confirm this proposition.

8. "Anemia of the cerebrum anterior to the cerebral peduncles in man produces loss of consciousness, insensibility, and paralysis. When to these convulsions are added, changes in the parts posterior to the thalami optici must have taken place.

Prior to these researches of KUSSMAUL and TENNER, I have essayed to establish these two fundamental propositions, viz.: 1st, That in cerebral vertigo, with or without convulsions, the blood of the cerebral lobes is expelled by the contractions of the vessels, and a state of relative vacuity, similar to that which occurs in syncope is found to exist; 2d, As the encephalon is shielded from atmospheric pressure by the cranium, whenever the cerebral lobes receive less blood, the base of encephalon must receive more, which condition, for reasons assigned in another work, must contribute to the production of convulsions.

9. "Anemia of the spinal cord gives rise to paralysis of the limbs, the respiratory muscles, and those of the neck. If the loss of blood in this organ is sudden and considerable, trembling sometimes, yet rarely, precedes paralysis of the limbs. The sphincter ani in such cases acts like the sphincter oculi in cerebral anemia, contracting violently before it becomes relaxed."

10. "Convulsions in cases of hemorrhage are due neither to a moral cause, nor to reflex action."

I have attempted to prove that these convulsions were due especially to the stimulating action of carbonic acid, and hence to reflex action upon the encephalo-rachidian centres; in this respect my conclusions differing from those of the authors whose essay I criticise.

11. "Convulsions from loss of blood do not occur:
"*a.* In cold blooded animals (at least in frogs);
"*b.* When the hemorrhage is very gradual, and the tonicity is slowly extinguished;
"*c.* When the animals are very feeble;
"*d.* When the nutrition of the spinal cord has been changed;

"*e.* When large portions of the encephalon have been removed;
"*f.* In a state of etherization;
"*g.* Without doubt also when the excitable portions of the encephalon have undergone pathological alteration."

The influence of most of these conditions has been determined exclusively by our authors, but they have not furnished any explanation of the mode of action of these conditions. I shall presently show that the explanation is very simple; by admitting, on the one hand, that carbonic acid is the exciting cause of the convulsions; and on the other, that in order to produce convulsions a certain quantity of the agent should exist and also a certain degree of excitability of the nervous centre.

12. "The encephalon of warm blooded animals can tolerate the want of red blood for only a very short period, after which it can not recover its functions under the influence of the nutritive fluid, and apparent is changed into real death. The encephalon of some hares retains its susceptibility for two minutes."

This proposition of KUSSMAUL and TENNER is only true of venous, or dark blood, but quite otherwise in regard to red blood, as has been shown in my memoir on the properties of the blood.

13. "Sometimes after the ligature of the vessels of the neck, the muscles of the trunk and limbs died, and the rigor mortis supervened before the left ventricle ceased to beat. The left heart is not then always the *primum moriens* among muscular organs."

Long ago I published facts analogous to these. I have shown that cadaveric rigidity takes place in posterior part of the body of a living animal after the ligation of the aorta. I have also seen the rigor mortis supervene in man and animals, in the muscles of the face, the neck, and the limbs, while the heart still continued to beat.

14. "The contraction followed by dilatation of the pupils during the death struggle is not a certain sign that death will inevitably follow, and that resuscitation is impossible, as BOUCHAT believes."

15. "Nothing is more efficient for the cure of convulsions from hemorrhage than the return of red blood."

16. "All debilitating methods, and especially venesection, ought to be rejected in the treatment of epilepsy."

17. "The quantity of blood in the cranial cavity may be very sensibly increased or diminished by experiment."

18. "The quantity of blood in the cranial cavity is augmented when the circulation is re-established, subsequent to its interruption, by ligature of the great vessels of the neck (arterial congestion), when also the veins of the neck have been ligated (venous congestion), also when the sympathetic has been divided on both sides of the neck, and finally

when asphyxia has been induced by ligation of the trachea during inspiration."

The preceding propositions are not quite correct. The quantity of blood in the encephalon may indeed be varied, but within only very narrow limits. It is also certain that the quantity of blood in one part of the cranial cavity, may be notably augmented, but only on the condition that a corresponding diminution shall take place in some other part. Such is the marked result after section of the sympathetic on both sides of the neck.

19. "A diminution of the quantity of blood in the cranial cavity takes place from hemorrhage, and by ligature of the arteries of the neck (passive anemia), as well as by galvanic irritation of the nerves of the cerebral vessels (active anemia)."

Galvanization of the sympathetic in the neck, as was shown by Callenfels and Donders, and as I have often seen, acts only on certain blood vessels, and the diminution of the quantity of blood in this case, as well as in others, is but local, and can not take place except when the cranium is opened, and without an augmentation in some other part. Hence, anemia of one part coincides with congestion of another portion of the cranial cavity.

20. "There is more blood in the cranial cavity after ligature of the arteries than after hemorrhages, and the diminution is everywhere equally seen in the smaller arteries, veins, and capillaries."

The smallest vessels are manifestly less replete than the larger vessels and the sinuses, the repletion in the latter being in the inverse ratio of the former.

21. "It is seldom possible to draw a correct conclusion in regard to the quantity of blood which existed during life in the cranial cavity from that which we find after death. In the death struggle, many circumstances occur to modify the circulation in the cranial cavity, and it is probable that is more or less changed even after death."

Changes in the absolute quantity of blood may indeed occur; the quantity of cephalo-rachidian fluid may modify it a little, but the effect of atmospheric pressure being very slight, there can be but little fluctuation in the absolute quantity. Local variations however may, and do occur, which balance each other.

22. "The phenomena of an incomplete epileptic paroxysm are derived from changes in the cerebrum, but those of a complete paroxysm depend upon changes in the entire encephalon. The convulsions of epilepsy are with justice attributed to an encephalic origin, and the spinal cord serves but the office of a conductor to the muscles of irritations originating in the encephalon."

I have shown that vertigo, loss of consciousness, and insensibility depend upon the absence or diminution of the blood in the

cerebrum. As to the spinal cord I have essayed to prove that it is not the principal source of the irritations that originate muscular contractions, but that, during the asphyxia induced by the paroxysm, it participates considerably in the production of clonic convulsions. We believe, therefore, that our authors err in regarding it as merely a conductor of irritation.

23. "The anatomical changes of the encephalon which have been described, or at least the more persistent ones, can not be considered as the proximate cause of the epileptic paroxysm, but merely as predisposing conditions of the disease."

This proposition I have tried to prove by both clinical and experimental data.

24. "Pathological anatomy can lead to no conclusion in regard to the nature of epilepsy."

25. "The sudden change of nutrition which modifies the normal condition of the encephalon is only manifested at the moment of the attack."

My own researches lead to the same conclusion.

26. "Arterial congestion of the encephalon appears to be capable of producing only paralytic phenomena (vertigo and apoplexy)."

This proposition is in harmony with the opinion I have advanced, that, in disturbed conditions of the circulation of the brain, convulsions arise chiefly from the presence of carbonic acid in the blood.

27. "The venous congestion of the brain, as well as the arterial-venous congestion, demand conditions which are rather more of an apoplectic than of an epileptic character, and which, through paralysis of the glottis, are distinguished by retardation of respiration, and slight occurrence of spasmodic phenomena."

28. "The epileptic paroxysm is not to be attributed to the sphagiasmus or the trachelismus of Marshall HALL, but exclusively to the laryngismus. Every theory that ascribes the paroxysm to suddenly augmented blood-pressure, whether of an active, passive, or mixed character, is false."

In common with all other causes of encephalic congestion, trachelismus may contribute to augment the violence of any attack. Laryngismus exerts a great influence in producing a paroxysm, but I think I have demonstrated that the chief influence can not justly be attributed to it. Moreover, I have shown that spasm of certain respiratory muscles of the thorax exerts an influence in the production of epileptic convulsions, even greater than that of laryngismus.

29. "It is probable that certain forms of epilepsy depend upon spasm of the muscular parietes of the cerebral arteries."

By the same experiments, and by others, I have attempted to establish the same conclusion, before the authors of this essay.

50. "The state which predisposes to the epileptic paroxysm exists sometimes in the whole encephalon, and sometimes only in a part of it, and this produces the changed condition in the rest of it upon which epileptic paroxysm depends."

In relation to this proposition I have only to remark that I have essayed to prove that the special condition which predisposes to an epileptic attack does not exist in the cerebral lobes, but exclusively in the parts which constitutes the isthmus of the encephalon, and, perhaps we may add, a part of the cervical cord.

31. "The medulla oblongata, being the origin of the constrictor nerves of the glottis, and the vaso-motor nerves, appears to be the more usual point of origin of the ecclamptic and the epileptic paroxysm."

E. B.-S.

PRELIMINARY LITERARY EDUCATION AGAIN REQUIRED FROM MEDICAL STUDENTS IN FRANCE.

Our readers may recollect that in 1852 an imperial decree removed the obligation, formerly imposed on students, to produce the degree of Bachelor of Letters (tantamount to our B. A.) before commencing their medical studies. Proficiency in the sciences allied to medicine was alone required. It has, however, been found that the absence of a literary education had a very unfavorable effect upon the young men entering upon their medical studies. The Superior Council of Education was consulted on the subject, and the members were almost unanimous in the opinion that the former state of things should be reëstablished. The Minister of Public Instruction, M. Rouland, also approved of the change; and upon his report to the Emperor, the decree has just been issued requiring every student to be possessed of the degree of B. A. before registering at the faculty. The first year is devoted to the study of the allied sciences as far as they bear upon medicine; and a modified degree of Bachelor of Science is, after examination, conferred upon the student who has completed his first year. The *bona fide* medical studies then begin, the young men are examined at the end of each session, and the last examination takes place when the four years are completed.

[*Lancet*, Oct. 16, 1858.

Pharmaceutical Department.

Iodide of Iron; Its Solutions.

The therapeutical value of this remedy is in strong contrast with the instability of its officinal and galenical solutions; and to solve the problem how it can be held unchanged in solution for a length of time, without change and deterioration, has exersised the experimental talents of many of our best Pharmaceutists. Among recent researches on this subject, we are led to notice those of Dr. SQUIBB, in a paper presented to the American Pharmaceutical Association, and that of Mr. J. HORNCASTLE, presented to the London Pharmaceutical Society.

Dr. SQUIBB proposes to reduce the excess of iron employed in the officinal formula, because, from the rapidity of the combination between it and the iron, so great an excess is quite useless, and only serves to retard the rapid completion of the product. He proposes further to introduce the solution of Iodide of Iron into a warm filtered syrup of sugar instead of upon crystals of sugar, because all sugar contains particles of dust and insoluble impurities, and that it is almost impossible to make a bright, clear syrup without a boiling temperature or a tedious filtration.

The formula he proposes for *Liquor Ferri Iodide* is as follows:

Take of Iodine	two ounces.
Iron Wire.	five drachms.
Distilled Water	a sufficient quantity.
Sugar	twelve ounces.

Dissolve the sugar, by means of heat, in eight fluid-ounces of boiling distilled water, and filter the syrup through paper into a tarred flask of the capacity of twenty fluid-ounces or more. Then put the iodine and iron into a bottle with three fluid-ounces of distilled water, and after the active reaction has subsided, shake the bottle vigorously until a bright clear green solution, free from brown tint, is obtained. By this time the solution of the sugar will nearly all have passed through the filter. Perforate the syrup filter over the bottle containing the solution of iodide of iron, and allow the remaining unfiltered portion of the syrup to run into the solution of the iodide, and shake the mixture well. Arrange a funnel, containing a small moistened paper filter, over the flask of filtered syrup, so that the point of the funnel enters the

syrup, and then filter the solution of the iodine into the syrup, keeping but a small portion of the solution in the filter, and maintaining a constant level till all has been poured in. Allow the filter to drain, without rinsing it, and finally add distilled water to the preparation till it measures, if cool, twenty fluid-ounces, or till it weighs twenty-five and a quarter ounces. Shake it well, and keep it in small bottles well filled and well stopped.* The process requires three hours, and yields a bright pale green solution of a sp. gr. of 1·348, containing a little over seven grains of iodide of iron in each fluid-drachm.

We quote further from Dr. Squibb's remarks upon the solution:

From the facility with which chemical reactions take place in spongy or porous textures, whose pores contain air or gases often in a condensed state, the writer was easily led to a theoretical objection to filtering the hot solution of iodide of iron into the sugar, as in the officinal process; and he has since regarded the circumstance of the color of this preparation being better when the solution is filtered into syrup, from which the air has been expelled by the heat in making it, as confirmation of the fact that there is far less air contact and far less consequent decomposition when the syrup is made beforehand.

When solutions of chloride, iodide or bromide of iron, with the chlorine, iodine or bromine, in minimum combining proportions, are brought in contact with organic matter, a portion of the haloid salt is always decomposed with separation of sesquioxide of iron. The extent of the decomposition is determined chiefly by the presence of oxygen or air, but also by the extent of the contact, by the dilution of the solution, and by the temperature of the reacting substances. Hence the writer would have as small a quantity of solution to filter as possible,—would filter this through as small a filter as possible,—would filter it cold, or cool, and with the least possible exposure to the air,—and would abstain from washing the last portions out of the filter. This last portion, if washed through, is always of a brown color, and if washed through with water containing the usual proportion of air, is very brown.

Fortunately, the solution, when not embarrassed by the debris of a large excess of iron, passes through a filter very readily, and very rapidly; so that by ordinary care and precaution, a very perfect, and, so to speak, a very chemical preparation may be easily obtained, in which the beginnings of evil have been successfully opposed.

More recently, Mr. Horncastle, in a series of experiments, has ascertained that by taking advantage of the properties possessed by citric and tartaric acids in preventing the spontaneous decomposition of solutions of the Iodide of Iron, they in the pharmaceutical form of mellites or tartro-mellites, will keep for almost an unlimited period. He objects to cane sugar, from its liability to be converted into the

*Our experience has been that Liquor Iodide Ferri keeps well when made by the process now officinal, if put into stoppered opaque vials, not larger than one fluid ounce capacity, immediately after being made. The vials should we filled full, and then the stoppers forced in by a spiral movement, which thus hermetically seals them.

less soluble grape sugar, and selects clarified honey, as in the following formula:

Citromel Ferri Iodidi.
R. Liq. Ferri Iodidi, f. ℥ j.
Mellis, ℥ xij.
Acidi Citrici, ʒ vj.
Aquæ Distill. Bullient., f. ℥ j. vel. q. s.

Liquify the honey by means of heat, and add, first the citric acid previously dissolved in the water, then the solution of iodide of iron; mix well together, making up f. ℥ xij. with distilled water, and filter.

Tartromel Ferri Iodide is prepared in the same manner, substituting half an ounce of tartaric acid in the latter for the citric acid of the former.

These preparations are about the strength of the London Pharmacopœia.

The *Liquor Ferri Iodide* indicated, contains an ounce of Iodide to each fluid-ounce, made as follows:

Take of Purified Iodine, ℥ ivss.
Iron Wire or Filings, ℥ iss.
Distilled Water, q. s.

Put the iron into a flask with three ounces of distilled water, and add the iodine a little at a time, allowing the solution to cool after each addition. When the whole has been added, set aside for a day or two and then filter, washing the insoluble residue with sufficient recently boiled distilled water to make up five fluid-ounces and a half of clear solution.

By combining the advantages apparent in the suggestions of Dr. Squibb with those asserted in the paper of Mr. Horncastle, it seems as if we had not much to desire in perfecting eligible formulæ for this important element among our officinal preparations, and doubtless we shall hear from the Pharmacopœial Committee of the Pharmaceutical Association upon the subject, at its ensuing report.

F. S.

Apocynum Cannabinum.

The root of this plant, which goes by the common name of *Black Indian Hemp*, and which is very common in our State in wild, sandy soil, is highly recommended by Dr. Peterfield Trent, of Richmond, Virginia, as an antiperiodic, in the treatment of intermittents; and he calls attention to it as a cheap and efficient substitute for cinchona and its salts.

His method of exhibition is as follows:

Powdered Black Ind. Hemp Root . . ℥ j.
Oil of Black Pepper . . . . gtt. xvj.
Syrup . . . . . q s.
M. Ft. Pill No. xij.

The administration of these pills is preceded by a cathartic (calomel and jalap, or the comp. cathartic pills of the U. S. P.); after catharsis, from one to two pills, at intervals of two hours, until four are taken previous to the next expected chill, and so continued until there is no longer a return of chills. In none of the six cases which Dr. TRENT reports upon was there required more than the above prescription of twelve pills to complete the cure.

The powerful emetic and cathartic powers of the *Black Indian Hemp Root* have been commented upon by several writers, and gained it a place in the Materia Medica list of the U. S. Pharmacopœia;—among the so-called Eclectics, however, has its use been principally confined. A resinous or bitter principle is prepared from it by MERRILL, by neutralizing a saturated tincture of the root with ammonia, filtering, and precipitating with sulphuric acid. This comes into market in the form of brown-colored produce, and is called *Apocynin.* Under the same name, also, there is an oleaginous mixture of the extraction and resinous matter of the root, employed, prepared by inspisating an ethero-alcoholic tincture of it. Whether these substances possess the asserted antiperiodic powers of the root remains for investigation. And we should be glad to record the results of employment by the Profession of our State. F. S.

Acetous Tincture of Cimicifuga.

Dr. KŒHLER, of Pennsylvania, proposes the employment of dilute acetic acid and alcohol as a solvent for the active matter of this valuable indigenous drug, as follows:

Take of	Black Cohosh Root, bruised . .	5 ounces.
	Dilute Acetic Acid, U. S. . . .	1 fluid ounce.
	Alcohol	8 fluid ounces.
	Water	11 fluid ounces.

Mix, macerate fourteen days; express and filter. Dose, one to two teaspoonfuls.

He says: "After due trial I found this combination to answer better than any other form, and the neighboring physicians, to whom I gave the formula, express themselves as highly pleased with the Acetated Tincture of Cimicifuga. It has been successfully employed in nervous affections, and as an alterative in various forms of rheumatism and uterine affections."

Nitrate of Silver in Treatment of Ozæna,

Has been employed in Europe by Dr. GALLIZIOLI. It is either snuffed up, mixed with powdered orris root, or introduced into the nostrils in form of ointment.

Six grains of Nitrate of Silver are mixed with one ounce of lard, and pledgets of lint, being smeared with this, are introduced deep into the nostrils. The application is renewed daily till the cure is completed.

Several cases successfully treated in this manner are reported.

RESEARCHES ON THE THERAPEUTICAL ACTION OF THE PERCHLORIDE OF IRON IN TREATMENT OF ACUTE AND CHRONIC URETHRITIS.

It results from the researches of M. BARUDEL, that the perchloride of iron, besides its hæmostatic properties, for which it is so often applied, possesses on internal administration, a very manifest sedative action on the general circulation. In thirty patients subjected to this treatment the pulse fell in two or three days from seventy or eighty a minute to sixty and even fifty; this salt produces neither cramps, pinching, nor twinging of the stomach, nor uneasiness in the cardiac region, colic, nor constipation. The chloride of iron has been administered by M. BARUDEL with remarkable results both in acute and chronic urethritis. In the acute form he orders an injection of 10 grammes of the iodide of lead in 100 grammes of water to be used three times daily, and administers at the same time the following potion:

℞. Distilled water, 60 grammes:
Perchloride of iron of 30°, 20 drops;*
Simple syrup, 15 grammes.

To be taken every two hours. Continue this potion for ten days.

In the chronic form, the internal treatment is exactly the same; for the injection of the iodide of lead the following is substituted:

℞. Perchloride of iron of 30°, 25 drops;
Distilled water, 100 grammes.

Inject three times daily, taking care to keep the liquid for ten minutes in the urethra.

If the pain provoked by this injection is too severe and last too long, it should be followed by two or three injections of cold water, and a day of repose should be permitted to the patient. This treatment has never given rise to any accident. It produced generally a marked improvement in three days, and often a cure in five days. M. BARUDEL combines with it a tonic regimen and cooling drinks, such as milk with flaxseed tea with nitre.

These results, and the two observations chosen from a great number of others, with which M. BARUDEL concludes his article, should induce physicians to try the proposed treatment.

[*Bulletin Gén. de Thérapeutique, May* 15, 1858, from *Nor. Amer. Méd.-Chir. Rev.*

HYDRATE OF QUININE.

The *Gazette Hebdomadaire* of June 11th states that, at the meeting of the Academy of Sciences, M. SCHUTZENBERGER read a paper on some new derivatives from quinine and cinchonine, as follows:

*Perchloride of iron of 30° means a solution in water of the dry perchloride; and to make it of a density indicating 30° Baume's hydrometer (the scale employed in France) requires 34.65 grains of the dry perchloride to 65.35 grains of distilled water. This solution contains nearly thirty per cent. of anhydrous perchloride of iron. F. S.

While the disengagement of nascent hydrogen is going on through the agency of zinc and sulphuric acid in which sulphate of quinine has been dissolved, when near the end of the elimination of the gas, if an excess of ammonia be added to precipitate the salts, the oxide of zinc immediately falls, after which, in a short time, there is also deposited the new derivative from the quinine, in the form of a tenacious, viscid moss. This is separated from the solution, and redissolved in alcohol, and filtered, which removes a small quantity of oxide of zinc. This solution evaporated, the residuum becomes transparent and resinous, having a slight green tinge, and presents its boric properties in a marked and full degree. It is the true hydrate of quinine, and has the following formula: C^{40} H^{24} Az^2, $4H^0$.

[*Pacific Med. and Surg. Journal.*

CHROMIC ACID IN SYPHILITIC VEGETATIONS.

M. Hairion, after describing the advantages derivable from the chromic acid in certain forms of the granular eyelid (a disease of common occurrence in the Belgian army), observes that the trials he has made of the acid, as recommended by Marshall and Heller in syphilitic vegetation, have been attended with the most complete and rapid success. Moreover, its application, whether to these syphilitic vegetations or to the fungous granulations of the conjunctiva, is never attended with pain or reaction, notwithstanding the rapid destruction of tissue that takes place.

[*Annales d' Occulistique.*

COLD APPLICATIONS AND SULPHATE OF COPPER IN CROUP.

Dr. Pudon relates some cases as examples of the great benefit he has derived from the continuous application of cold wet compresses to the neck, simultaneously with the administration of sulphate of copper in two-grain doses every half hour; sixty-four grains having been given in one case and seventy in another.

[*Journal für Kinderkrank.*

COLLODION IN HERPES ZONA.

Professor Fenger has of late been treating this troublesome affection advantageously by collodion, smearing it by means of a pencil over the whole of the vesicles, their bases and their circumference, or wherever there is redness. It should be applied as early as possible, and three layers in thickness, renewing it next day. He finds the addition of castor oil to the collodion an improvement; but especially prefers the solution of cotton wool in acetic ether.

[*Schmidt's Jahrb.*

TANNATE OF LEAD,

According to M. Leclerc, Physician of the Hôtel Dieu de Lyons, is the best of all applications in bed-sores; if applied in time, it almost always prevents sloughing. It is prepared by boiling 32 parts of oak bark in 250 parts of water, and reducing it by boiling to 125 (Goulard's

Extract); to this, filtered, is added *extrait de saturne* as long as a precipitate is thrown down. This precipitate is laid on the menaced part of the skin with the finger in a thick layer, and then covered with linen.

[*American Druggists' Circular and Chem. Gazette.*

DEODORIZING GASES.

JOHN STENHOUSE (*London Pharmaceutical Journal*, February, 1858) proposes to deodorize carbonic acid gas obtained from marble dust or whiting, and which may possess a disagreeable odor, by passing it through a short column of coarsely powdered charcoal, or a charcoal air filter. He takes a tube, either of glass or tin plate, about an inch and one-quarter in diameter and about eight or ten inches in length; this is filled by bits of wood charcoal about the size of peas or beans; the charcoal is packed loosely into the tube, so as not to prevent a ready passage of the gas. When large amounts of gas are to be purified, the apparatus must be larger, the above being designed for laboratory use. This may form a valuable hint to the manufacturer of mineral waters, as Mr. STENHOUSE states that he obtained perfectly inodorous carbonic acid from both chalk and impure limestones containing much bituminous matter. For purifying hydrogen it it is equally serviceable.

QUINIUM.

MM. DELONDREand A. LEBARRAQUE have proposed a formula for a compound extract of cinchona, called quinium, and which has received the approval of the Academy of Medicine of Paris. They were led to this by the high price of quinia and its salts for a few years back having driven physicians to using the powdered bark of all kinds of cinchona instead. The quinium is simply an extract (hydro-alcoholic), which contains quinia and cinchonia in the proportion of two partsof the former to one of the latter; this proportion is obtained by using barks, the percentage of alkaloids in which is previously known.

[*Bulletin Gēn. de Thērapeutique and Brit. & For. Med.-Chir. Rev., July*, 1858.

Seventh Annual Meeting of the State Medical Society.

LANSING, January 19th, 1859.

THE State Medical Society convened in the room of the Supreme Court this morning—Dr. J. Adams Allen, of Kalamazoo, President of the Society, in the chair.

The Minutes of the last meeting were read and approved.

The following named physicians were then elected as members of the Society: Drs. Pratt, of Kalamazoo; J. H. Bartholomew and J. B. Hull, of Lansing; Manly Miles, of Flint; A. Cornell, of Ionia; E. A. Price, of Lansing; Morgan L. Leach, of Duplain; J. M. Hoyt, of Genesee county; and A. A. Thompson, of Olivet.

Dr. Christian moved that a committee be appointed to nominate officers for the ensuing year.

Dr. Beach moved, as an amendment, that the election of officers be made the special order for four o'clock this afternoon. The amendment was accepted, and the motion prevailed.

Dr. Gunn moved that the hour for the delivery of the President's Address be fixed at two o'clock. Carried.

A communication was received and read by the Secretary, from Dr. Charles R. Case, of Detroit, tendering his resignation as a member of the Society.

Dr. Shank moved that the resignation be accepted.

Dr. Gunn made some remarks in opposition to the acceptance of the resignation, and moved, as a substitute, that his name be stricken from the list of members.

The chairman decided the substitute out of order.

Dr. E. Leach moved that it be referred to a committee, to report immediately after the President's Address. Lost.

The question recurring on the motion to accept the resignation, quite a lengthy discussion followed, which was participated in by most of the members present; when, on motion of Dr. Stockwell, the subject was disposed of by the adoption of the following:

Resolved, That the request of Dr. Case that he be allowed to withdraw from this Society be granted, seriously deprecating the position taken by him, necessitating such request.

A communication was then read from Dr. G. E. Corbin, of Stockbridge, transmitting communications from Drs. A. C. Dutton and W. W. Collins, of Eaton Rapids, and resolutions requesting action of the Society in regard to J. C. Searles, of Leslie.

On motion, the matter was laid on the table till afternoon session.

The President announced as a Committee on Credentials, Drs. Leach, of Clinton; Beach, of Coldwater; and Miles, of Flint.

A lengthy report was then read by Dr. Gunn on Ununited Fractures, which was referred to the Committee on Printing.

The Committee on Credentials then reported the following members as present and entitled to seats: Drs. Hull, E. Leach, Stockwell, Gunn, Fairbanks, Phelps, Shank, J. A. Allen, Beach, Christian, Pratt, J. H. Bartholomew, M. Miles, Cornell, E. A. Price, M. L. Leach, J. M. Hoyt, A. A. Thompson.

The meeting then adjourned, to meet at two o'clock in the hall of the House of Representatives.

Afternoon Session.

The Society met at two o'clock, and listened to a very able Address by the President. He dwelt upon the advancement of the science of medicine within recent periods, and spoke at some length upon the methods of obtaining proper statistical information for deciding great vital problems, recommending the Society to urge the passage of a Registration Law, and other important measures.

On motion of Dr. Gunn, the thanks of the Society were presented to the House of Representatives for the use of their hall.

The Society then adjourned to the room of the Supreme Court.

The following physicians were then elected as members of the Society, viz.: Drs. H. S. Buel, of Oakland; Morgan Enos, of Berrien; William M. Haze, of Lansing; C. A. Merret and A. C. Dutton, of Eaton county.

An invitation was received from the officers of the Deaf, Dumb, and Blind Asylum, to attend an exhibition by the pupils, in the evening, at the Hall of House of Representatives; which was, on motion, accepted, and placed on file.

On motion of Dr. Gunn, the President's Address was referred to

a committee, consisting of Drs. Gunn, Stockwell, and E. Leach, to select such passages as may require the action of the Society.

The following Resolution was then, on motion of Dr. Pratt, adopted:

Whereas, The State census of 1854 disclosed the startling fact that there were, in our midst, nearly six hundred insane, of which number certainly three hundred and fifty were, in our opinion, proper subjects for treatment in an asylum; and,

Whereas, There is not in this State as yet any provision ready for the care and keeping of our insane; and,

Whereas, This delay in fully finishing the Asylum at Kalamazoo is causing the insanity of many of these unfortunates to become permanent and incurable; therefore,

Resolved, That in our opinion the claims of a suffering humanity, found at our doors, nay, in the bosoms of our families, emphatically demand of the Legislature of this State the completion of our Insane Asylum at the earliest possible period.

The President and Secretary were instructed to prepare a memorial to the Legislature on the subject of the Asylum for the Insane, embodying the foregoing preamble and resolution.

Dr. Leach then read an interesting paper on the Diseases and Topography of Shiawassee county; which was referred to the Committee on Publication.

On motion, the Reports of the following gentlemen, which were transmitted through the Secretary—viz., Dr. Corbin, on Diseases and Topography of Livingston county; Dr. N. D. Stebbins, on Registration; and Dr. Gorton, on Methods of Legalizing the Study of Anatomy — were referred to Committee on Publication.

Dr. Christian read a paper on Criminal Abortions; which was similarly referred.

Dr. Thomas, of Schoolcraft, was, on motion of Dr. Gunn, elected an honorary member of the Society.

The Committee on the President's Address reported the following resolutions:

Resolved, That Dr. J. A. Allen be hereby appointed the chairman of a committee to carry out, under the auspices of this Society, the views advanced in the President's Address relative to the collection of statistics and observations upon epidemics and endemics.

Resolved, That this Society regard the establishment of a State General Hospital an object earnestly to be desired, and hereby express the hope that this enterprise may engage the attention of the State authorities, as one next in order after those at present in process of being carried out — viz., the Asylum for the Deaf, Dumb, and Blind, and for the Insane.

Resolved, That we adopt the sentiments expressed in the President's Address in reference to the deceased members of this Society as our sentiments.

Resolved, That a committee of three be appointed to report at the next Annual Meeting on the subject of Medical Education.

The Report was accepted, and adopted.

The hour for the special order having arrived, Drs. Bartholomew and Collins were appointed Tellers, and the Society proceeded to ballot for officers for the ensuing year; when the following were elected:

President—Dr. H. B. Shank, of Lansing.
Vice-President—Dr. Moses Gunn, of Detroit.
Secretary—Dr. E. P. Christian, of Wyandotte.
Treasurer—Dr. J. H. Beach, of Coldwater.

Dr. Shank being absent, the Vice-President elect was conducted to the chair by the retiring President.

On motion, Dr. Davis, of ———, was elected to membership.

Dr. Beach offered the following Motions; which were passed:

Moved, That the thanks of this Society be presented to the retiring President for his courteous administration, and especially for his able Address just delivered.

Moved, That the thanks of this Society are due to Dr. E. P. Christian, for the ability and assiduity which he has exhibited in his duties as Secretary during the whole period of his acting in that capacity.

Dr. Pratt offered the following Preamble and Resolution:

Whereas, The transactions of this Medical Society must contain much information relative to the preservation of health and the prevention of disease, which it will be important for the people of this State to have in possession; and,

Whereas, It is unjust to require the Medical Profession, at their individual expense, to publish this information for the benefit of the State; and,

Whereas, Other Legislatures have recognized it as their duty to spread before the people they represent all facts having an important bearing upon sanitary reform; therefore,

Resolved, That we respectfully request the Legislature of this State, now in session, to inaugurate the practice of publishing, as one of the State Joint Documents, the Annual Transactions of this Society.

The Resolutions were adopted; and, on motion of Dr. Miles, the members of the Society who are members of the Legislature were appointed a committee to bring the Resolutions before the Legislature.

The following members were then appointed delegates to the National Medical Society—the President having power to appoint substitutes in place of any delegate, such delegate giving him notice of desired substitution: Drs. Pratt, of Kalamazoo; E. Leach, of Owosso; H. S. Buel, of Oakland; Miles, of Flint; Cornell, of Ionia; Shank, of Lansing; Hoyt, of Oakland; Fairbanks, of Genesee; Wilson, of Port Huron; Enos, of Berrien; Shephard, of Grand Rapids; and Clark, of Detroit.

Dr. Pratt offered the following:

Resolved, That a committee of three be appointed to gather information in relation to the condition of the poor-houses, jails, prisons, penitentiaries, and houses of refuge in this State, particularly in reference to their sanitary condition, and the arrangements provided for the proper separation of sexes, and the general principles upon which, in their opinion, the poor-houses and jails especially should be built, and report at the next annual meeting.

Adopted; and Drs. Pratt, Hoyt, and Miles appointed as the committee.

The President appointed the following Committee on Medical Education: Dr. J. H. Beach, Dr. E. Leach, and Dr. Pratt.

Dr. Beach offered the following:

Resolved, That it is derogatory to the character of physicians and surgeons to admit into their offices, as students, any persons of whom they have not certain knowledge that they possess all the moral, intellectual, and educational qualifications demanded by the letter and spirit of the American Medical Association.

Resolved, That it is highly improper and inconsistent with professional honor for any physician or surgeon to allow his name to be used as preceptor by any individual aspiring to honors in any medical institution, unless he shall have full and certain information that said aspirant has complied with all the requirements of students, and is entitled to certificates of pupilage for the space of time which he claims to have studied.

Resolved, That we hail with gratification the zeal evinced by the American Pharmaceutical Association, and by many eminent pharmaceutists and druggists, to render medicinal agents agreeable as well as reliable; and that we hold in high estimation and fraternal regard that honorable portion who refuse to pander to the avarice of mountebanks or the stupid credulity of the populace, by trading in lying nostrums and factional fancies.

Resolved, That the character and appearance of the *Peninsular and Independent Medical Journal* have hitherto been highly creditable to all parties concerned in its matter and execution, and that it deserves the encomiums and support of the Medical Profession.

The Resolutions were adopted.

Dr. Stockwell then read a volunteer paper from Dr. G. B. Wilson, of Port Huron, on the Necessity and Proper Method of Obtaining Vital Statistics; which was referred to Legislative Committee, and thanks of Society returned for the same.

Dr. Beach then presented a paper embracing Vital Statistics of Coldwater for 1858; which was referred to Committee on Publication.

The President announced Drs. Shank, Christian, and Bartholomew as the Standing Committee on Publication.

Dr. Allen moved that Resolutions appended to Dr. Stebbins's paper be referred to Legislative Committee. Carried.

Dr. Beach offered the following; which was adopted, and referred to Legislative Committee.

Resolved, That this Society earnestly recommend to the Honorable the Senate and House of Representatives that they do, at the earliest practicable date, enact the necessary laws requiring and providing for the thorough registration of births, marriages, and deaths, occurring in this State.

On motion, the suggestions of Dr. Gorton, in relation to an enactment for Legalizing the Study of Anatomy, were laid on the table for one year.

The following persons were appointed to report upon the specified subjects at the next meeting of the Society, viz.:

Dr. E. P. Christian—On Criminal Abortions.
Dr. A. Cornell—On the Use and Abuse of Cathartics.
Dr. A. B. Palmer—On Infantile Therapeutics.
Dr. J. Adams Allen—On Nervous Action.
Dr. Abram Sager—On Ergot, and the various Proposed Substitutes as Ecbolics.
Dr. Moses Gunn—On Plastic Operations.
Dr. Pratt—On New Remedies.
Dr. M. L. Leach—On the Diseases and Topography of Clinton County.
Dr. G. B. Wilson—On the Action of Quinine.
Dr. Fairbanks—On Adulterated Liquors.

On motion, Dr. Van Dusan was elected an honorary member, and requested to furnish a paper at next meeting on some subject pertaining to his speciality (Insanity).

On motion of Dr. Stockwell, Dr. Thos. C. Brinsmade, of Troy, N. Y., was elected an honorary member.

The President-elect having returned, was conducted to the chair, and addressed the Society.

A vote of thanks was returned to the State Officers for the use of the Supreme Court room.

Dr. Beach presented an invitation from Profession in Coldwater, to meet there next year.

On motion of Dr. Pratt, a committee of three, consisting of Drs. Phelps, Collins, and Sachrider, were appointed to inquire into the charges preferred against Dr. J. C. Searles, of Ingham county, and report at the next meeting. The Secretary was requested to furnish this Committee with papers relating to the case.

On motion, the Society adjourned.

THE

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MEDICAL JOURNAL.

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Original Communications.

ART. LV.—Report of Mr. Whitney's Case—Dr. Green and New York Academy of Medicine.

By L.

As a case has recently occurred in our city which has produced a good deal of excitement in the community, as well as among physicians, I have thought that a condensed history of the matter might be interesting to the readers of your journal—I refer to the death of Mr. WHITNEY, alleged to have been caused by Dr. H. GREEN, in passing the probang into the larynx, or the injection of nitrate of silver into the bronchi.

The important facts of the case are the following, as gathered from the statements made last night, before the Academy of Medicine:

Mr. WHITNEY called on Dr. GREEN, on the 25th October last, to try his treatment. He had had considerable cough for a year or more, which had increased considerably of late. His health had been bad, as he stated, for several

years. His cough, at times, was accompanied with slight hemorrhage. His face was pale and thin, and his general appearance phthisical. On examination, a slight depression was found over the left thoracic wall, with less expansion on this side, flatness on percussion over the whole upper portion of the left lung, with slight dullness on the right side. Below the left clavicle a slight click was heard both on inspiration and expiration. His throat was granulated and inflamed, left tonsil slightly enlarged and ulcerated, epiglottis thickened and its border whitened with a line of erosions. The left tonsil was removed by excision, while the pharynx, epiglottis, &c., were cauterized (40 grs. nit. argent to ℥ j. water), and a drachm of the following mixture was advised night and morning:

℞. Iodid Potassæ, ʒ ij.
Proto-Iodid. Hydrarg. grs. ij.
Tinct. Rhei, ℥ i.
Syrup Sarsa. Comp. ℥ v.
M.

This medicine was used for the three following weeks.

Oct. 26.—The throat, fauces, and larynx were cauterized with the nitrate.

Oct. 27.—The same application made to the same parts.

Nov. 9.—Patient returned, and requested the treatment to be continued—accordingly cauterization of the larynx was repeated; and, also, on the 18th. At this time, the soreness of the throat had disappeared, and the cough diminished for a time, but latterly had increased. On the 20th, unequivocal signs of a cavity were found in the superior portion of the left lung, as indicated by cavernous respiration and humid râles. The following medicine was then prescribed:

℞. Manganesii Phos. ʒ ij.
Tinct. Cinchonæ, ℥ iij.
Syrup Sarzæ, ℥ iv.
Muc. Acaciæ, ℥ j.
Ol. Gaultheriæ, gtt. xx.
M. One drachm twice daily.

Dec. 4.—The sponge probang again passed into larynx.

Dec. 6.—A catheter was introduced into left bronchus, and a drachm of nit. silver solution (15 grs. to ℥ j.) injected—no irritation followed.

Dec. 9.—Patient expressed himself much better, both as to cough and expectoration, and desired the injection to be repeated; cauterization, however, was only employed.

Dec. 14.—The sponge probang was passed, in presence of Dr. Fay, as in all the previous operations, into the larynx; when it reached the glottis, the progress of the instrument was suddenly arrested by spasmodic action, so that it did not enter the windpipe at all; it was at once removed, no more force having been used than in the former instances. The patient remarked that the operation hurt him more than usual, but promised to return the next day to have the tube employed. Dr. Fay testified that the operation caused very trifling irritation—no more than he had himself experienced from having his uvula cauterized. The patient was taken worse the same night, called in Drs. Beales and Mott, by whom he was attended until his death, one week afterwards.

Dec. 14, 1 P. M.—Dr. B. found the patient with a pale and haggard countenance, irregular, and almost spasmodic, breathing, incessant cough. Spoke with great pain and difficulty, and in a hoarse, unnatural tone; skin cold and clammy, and covered with perspiration; pulse very feeble, frequent, irregular, and intermittent; very restless; great pain in region of larynx, shooting through to the cervical

vertebræ, and down the trachea to the chest; fauces and throat seemed much inflamed, but no satisfactory examination of patient could be made. He stated that he felt something give way in his throat when Dr. GREEN passed the probang in the morning, at which time severe pain began and increased up to the time Dr. B. was called.

The treatment was chiefly stimulating, with demulcents and soothing poultices and inhalations.

On the 15th December extensive emphysema was observed about the face and neck, which gradually extended over nearly the whole body. The patient gradually grew worse, and he died December 21st, "partly from exhaustion, and partly from asphyxia," to use Dr. B.'s words.

Post-mortem. Autopsy examination, 30 hours after death, revealed a cavity, containing pus, about the size of a large hen's-egg, situated beneath the cervical fasciæ, on the left side of the thyroid cartilage, extending a little in front of the pharynx, and downward behind and below the thyroid cartilage. At the upper and posterior part of this abscess, there was an opening into the pharynx, large enough to admit the end of the forefinger. This abscess was lined by a large quantity of destroyed filamentous tissue, hanging from different parts of it like wetted tow. The entrance into the æsophagus immediately below this was perfectly sound, internally and externally. No abrasion or aperture was found in the larynx; which, with the trachea, appeared perfectly natural and healthy. About an inch above the division of the trachea, a bright vermillion redness of the membrane commenced, and extended down each bronchus into the lungs. On opening the pleura, the upper lobe of left side seemed covered with thick pus, but, on examination, it proved to be soft, strumous-like fibrine, easily rubbed off. This, on the side and posterior part, connected that lobe in patches to the pleura costalis. These imperfect adhesions were easily broken down with the fingers.

The whole of the upper part of left lung was hepatized. Just at the root, or commencement, of the bronchial ramifications, there was an *open cavity*, about the size of a black walnut, of a reddish brown color, and irregular surface, as though a slough had separated. At the upper and anterior part of this cavity there was a small opening through both pleuræ. No tubercles in either lung were discovered. Right lung perfectly sound. No old adhesions on either side of the chest.

Dr. Beales, in commenting upon the case, said that he had often examined Mr. Whitney, and in October last, but found no evidence of tubercles in the lungs; that he had been for a long time subject to various derangements of the digestive organs, as want of appetite, torpidity of the bowels, deficiency of the biliary secretion, and occasionally a bronchial cough. In regard to the post-mortem appearances, he maintained that the cavity in the left lung was not a *tubercular* cavity, as it contained no kind of fluid, nor was it covered with lymph nor false membrane nor any remains of tuberculous deposit; "it was a shallow depression, or scooping out of the actual apex or superfices of the left lung" (to use Dr. B.'s words), "its surface was rough and irregular, as though a slough had separated. Communicating with it was a perforation in the two pleura, large enough to admit the little finger; all other appearances about the lung were of the most recent disease, the hepatization in its earliest stage, and the adhesions so recent that the parts seemed *glued* together, rather than adherent. No marks of chronic disease about the lung were visible." The epiglottis was perfectly healthy. Dr. B. would not say that he believed the cavity in the lung was caused by the injection of nit. silver into the left bronchus, but he regarded the operation as at all times attended with the greatest hazard and risk to the patient's life. He believed it perfectly unjustifiable, as he had never heard of a case where

it had effected a cure. He "believed, that a slough or eschar was formed at the apex of the lung, involving the pleura, which, at the time of the last operation, became separated by the violent exertions and spasmodic coughing, causing the air to pass into the cellular substance and cause the emphysema. As to the lesion of the pharynx," said Dr. B., "and the abscess connected with it, both were recent; for, had an abscess existed previously, Dr. G. would have discovered it." Dr. B. then went on to say that, to his mind, the evidence was irresistible that in the last operation on the 14th December, the pharynx was accidentally lacerated by the probang, the first effects of which were excessive irritation of the parts, and a severe shock, increased by the nervous temperament of the patient, and the conviction of the patient that the injury was fatal. Afterwards, Dr. B. supposed that portions of the various foreign bodies which the patient attempted to swallow, such as food and medicine, were forced into the wound, and after three or four days a sloughy abscess began to be formed, which, gradually increasing in size, formed a mechanical obstruction to swallowing, by pressure on the surrounding parts, prevented the epiglottis from properly closing, causing strangulation and regurgitation, till the patient sunk from exhaustion and asphyxia. It should be remarked that in the certificate to the City Inspector, Dr. B. returned, "died from effusion into the lungs."

Dr. GREEN replied at considerable length, maintaining that the cavity in the lungs was caused by the softening of tubercular matter, and not the injection of nit. silver, as intimated, and quoted ROKITANSKY (*Am. Ed. pp.* 103 and 112) to prove that what was supposed to be *hepatization of the lung* was nothing but *infiltrated tubercle*. He also referred to the recent discussions in the *French Acad. Med.* on the subject of injection and cauterization in diseases of the lungs, in which it was unanimously ad-

mitted, that this operation is not only performed with safety, but that great beneficial results follow therefrom. "Within the last few months," said Dr. G., "large numbers of young and delicate children, one, two, three, four, and five years of age, have been treated for croup by injection of nitrate of silver into the larynx, by such men as MM. Trousseau, Loiseau, and others." Dr. G. also quoted Prof. Bennett, of Edinburgh, who states that he had publicly injected the bronchi, recently, in seven cases in the Royal Infirmary of Edinburgh, with beneficial results, that he had often resorted to it in private practice, in one asthmatic case eleven times (℈ij. to ℥j.), with decided benefit, and *followed by no irritation whatever*, the only sensible effects being a relief to the cough, cessation to the expectoration, and a pleasant sensation of warmth in the chest. Dr. G. stated that he had used cauterization within the larynx 100,000 times since 1845, as his books would show, and without a single accident. He complained of not having been invited to attend the post-mortem, and his defense was followed by considerable applause.

Dr. Mott followed, claiming that the abscess in the pharynx was an acute and not chronic one, — that owing to emphysema it was impossible to discover it during the lifetime of the patient; the cavity in the lung did not appear to him like an abscess, or any cavity that he had ever before seen from disease of the lungs, or any disease of that description, intimating that it was caused by the nitrate solution injection. In reply to a question from Dr. Green as to the cause of death, Dr. Mott replied "Mr. W. died of an abscess in the left side of the larynx, and anterior to the pharynx; also of inflammation of the mucous membrane of the lower part of the trachea; of prodigious inflammation of the left bronchus, and less inflammation of the right bronchus; also, from a *cavity in he apex* of the left lung; also of a very vigorous inflam-

mation of half of the left upper lobe, with hepatization, and a hole leading through the pleura costalis and pulmonalis, through which he was extensively blown up with emphysema."

Various remarks were made by Drs. Wood, Barker, Douglas, Peaslee, Reese, Griscom, etc., and finally it was resolved by a large majority to lay the whole subject on the table.

But I have already occupied so much space in detailing the facts of the case, that I have no space left for comment. I may remark, however, that professional opinion is much divided on the subject; a majority, it is believed, entirely exonerating Dr. Green from all blame whatever.

New York, Jan. 22d, 1859.

ART. LVI.—A Case of Idiopathic Tetanus.

By H. C. Fairbank, M. D.

Thos. P., aged 25, bilious temperament, was taken on the night of the 15th of last August, while attending a relative in the last stage of delirium tremens, with trembling of the limbs and body. Chloroform had been administered to the victim of alcohol, when the subject of this notice experienced a sensation which he compared to an *electric shock*. The day following (Aug. 16th), the jerking of the muscles continued, with occasional intervals of rest; and at night, while in bed, there was such sudden and violent contractions of the muscular system generally, that he was thrown from his bed upon the floor. On the 17th, he had chill and fever, when I was requested to see him. These, however, readily yielded to treatment, and he was soon able to ride about.

On the 2d of September, he had a relapse, the fever

continuing uninterruptedly for some ten days, when it subsided. Within a day or two of this temporary improvement, the convulsive action of the muscles recurred, and accompanied by *hemiplegia* of the left side. His speech soon became affected, alternating with difficult respiration. *Opisthotonous* was now a troublesome symptom, rendering it almost impossible to lie upon his back, for even a short time, quietly. Dysuria also enhanced the uncomfortable condition of the patient, but the urine presented nothing peculiar in appearance.

It was now observed that when the muscles of the extremities were quiet, the dyspnœa and the difficulty in articulation were greatest, and *vice versa*. At times the patient would experience a sense of suffocation, the countenance wearing an anxious expression, the glottis acting spasmodically; but this would soon pass off by the use of diffusible stimulants with antispasmodics, to be succeeded again by a general shaking of the body and limbs. These symptoms continued, alternating with each other, for about six weeks, when it was found that the derangement in the action of the respiratory muscles was yielding to a normal condition.

After this, and next in order, he slowly regained the accustomed use of his vocal organs, and only the twitching of the muscles of the body and limbs remained to annoy him. But this was so great that he could neither stand nor sit still, and he sought relief in walking day and night about his room. For a change of exercise he would occasionally run for a short distance at full speed, then return much exhausted. At times when he could stand up, he would *dance* awhile in his room, until fatigue compelled him to desist. He at times also found relief while riding in a carriage, the motion of which seemed to quiet the agitation of the muscles very much. This would return, however, as soon as the vehicle stopped. He found it im-

possible to lie upon his back, the muscles of that region contracting so violently as to throw him off his couch and bed, whenever he took that position. For weeks he was accustomed to have some one press forcibly upon the sternum till he could get to sleep at night, and he often had little or no sleep for several nights in succession.

There was, from the outset, pain in the region of the diaphragm; occasional nausea and vomiting, a costive state of the bowels, alternating with diarrhœa, some thirst, which, however subsided after the first two weeks. The tongue was coated and flabby; often the surface was bathed in a profuse clammy sweat, and when dry it was not usually above the natural temperature. The pulse ranged from 80 to 100 per minute, though several times it was as high as 120. There was but little or no tenderness over the spinal column at any time of his sickness. For the most part he was hopeful and inclined to indulge in lively and cheerful conversation; but occasionally the opposite state of mind was noticed, with a corresponding aggravation of symptoms.

As to the origin of this, to me, somewhat unusual case, I have nothing to offer more than what doubtless, ere this, will have been suggested to the minds of most of you—viz., that it arose from spinal irritation. Pain in the præcordial region, extending back to the spine, was experienced by the patient during almost the entire period of his sickness, and, indeed, has not fully subsided yet. He himself imagined that it originated in sympathy with his relative, whom he was watching during the last agonies of that most shocking affection, the delirium tremens, or that animal magnetism had produced the various nervous phenomena he exhibited. The scene presented by the victim of alcoholic drinks was truly terrible, and well calculated to impress all who witnessed it deeply, but that it alone should produce the train of nervous and muscular derangements which were here seen may be questioned.

Treatment. — This was at first that which seemed appropriate for the chill and fever; as cathartics, followed by quinine. After this had been accomplished, counter-irritation to the spine and epigastrium were freely used for some time; *Tonics*, vegetable, and mineral, as quinine, zinc, iron, arsenic, strychnine, cimicifuga, etc.; *Narcotics*, and *Anodynes*, as aconite, opium, belladonna, hyosciamus, Hoffman's anodyne mixture, etc.; *Antispasmodics*, as camphor, assafœtida, chloroform, etc.; *Stimulants*, as carb. ammonia, brandy, capsicum, showering of the spine, etc.

But of these various remedies, none had the desired effect; or, if they did, it was not seen till some time after their exhibition; for there was no amelioration of symptoms till some weeks after nearly all treatment had been suspended, other than daily exercise in the open air either in a carriage or on horseback.

About the first of December, three months after the strange series of symptoms manifested themselves, he began to improve, and from that time on continued to do so, taking one or two trips to Detroit on the cars, which he thought benefited him; and at this time (January 6th, 1859), he can walk, talk, and sit without the least inconvenience, and complains of nothing, further than slight dyspeptic symptoms, such as he has had for a number of years.

I am inclined to regard the above case as one of *Idiopathic Tetanus*, believing that it more properly belongs to that affection than to some others, though it may very much resemble them.

GRAND BLANC, January 6th, 1859.

ART. LVII.—Veratrum Viride.

By M. A. Patterson, M. D.

(*Continued from the February No.*)

In the recent edition of Professor Paine's elaborate work on the Institutes of Medicine we find the following remarks, which, as bearing directly upon our subject, in a book designed to enlighten both students and physicians, are entitled to a passing notice.

"I know not to what extent this very limited view of Therapeutics may have prevailed, but it has been probably, the occasion of an effort now making in the United States to substitute for bloodletting that very violent agent the Veratrum Viride, which has been long known to lessen the frequency of the pulse by an acrid narcotic virtue which it possesses, and which belongs to some of the acrid cathartics. The whole of this practice appears to have been suggested by a similar error in respect to digitalis, and the attempts that have been made to substitute tobacco and aconite for loss of blood. Neither Colchicum nor Veratrum exert any antiphlogistic effect excepting upon those specific forms of inflammation which constitute rheumatism and gout; and both of them will aggravate these diseases in their acute conditions until they are effectually moderated by bloodletting, tartarized antimony, and other direct antiphlogistics."—*Page* 160.

This decided condemnation of the Veratrum Viride arises, probably, from three causes:

1. An apprehension on the part of the learned author that this agent will be improperly substituted for the lancet; and, in this view, a word of caution, fitly spoken by an experienced brother, is entitled to respect.

2. From the original error, apparent in Osgood's notice of Prof. Tully's views, of supposing that the powers and properties of Veratrum Viride are so nearly identical with those possessed by Colchicum, that the one may be substituted for the other.

3. From an absolute want of practical knowledge of the therapeutic capabilities of the remedy.

How are we to become acquainted with the remedial

powers of this, or of any other comparatively new medicine? Professor PAINE, when alluding to jalap, answers this question, most satisfactorily, in the following words:

"This comparative exemption from objection is rather remarkable when it is considered that, like scammony, the active principle resides considerably in a resinous substance, and that the resin of jalap is an acrid cathartic. *But this only shows us that we must consult the direct effects of remedial agents upon morbid conditions to ascertain their actual virtues as remedies. All that is of any value in this respect has been the result of experimental observation — observation limited to effects upon diseased states of the body.* And what a rebuke is this to the pretensions of Organic Chemistry!"

Precisely. And is it not a rebuke equally applicable to those who denounce a remedy which they have probably never tried? When I spoke of the Veratrum Viride as being *sui generis*, my object was to divert the mind from its habitual tendency to associate this remedy with the acro-narcotics of the books. And I now say, that all arguments against this medicine, founded upon the uncertain analogous action of any other article which systematic writers may please to class with this, will be fallacious, for the simple reason that, as are medial agent, it is, in a few most essential particulars, unlike the remedies with which it has been associated, whether classed with the narcotics, or with the arterial or nervous sedatives. It is unlike them in the safety and certainty of its action, and in its wider and more permanent influence over extended pathological conditions.

To regard it as a substitute, at all times, for the lancet, is simply an absurdity. Bloodletting does not belong to the Materia Medica proper, and I have no desire to institute a comparison between these important remedies at the expense of either, but shall continue to urge the use of one or both as our judgment of the requirements of the case before us may dictate.

Heretofore my remarks have been mostly historical,

I shall now present some views respecting the application of the remedy to distinct forms of disease. In this connection, I shall take the liberty of alluding to other remedies which, in my judgment, should precede, accompany, or follow the administration of the Veratrum, according to the existing indications.

Fevers.

As the treatment of common Intermittents is so well understood in this country, it will be only proper here to remark that, after the use of the ordinary evacuants, should the stages of exacerbation be unusually severe, and the intermissions not sufficiently prolonged and distinct, the Veratrum, pushed to the nauseating point, will aid materially in producing the desired intermissions, and thus prepare the case for the earlier use of quinine.

In those chronic forms attended with enlargement of the spleen and diseased liver, resulting usually from neglect or bad treatment, when the system is partially or decidedly in an anæmic condition, and the peculiar irritable fever following the cold stage continues until merged in the succeeding chill, the Veratrum, given until emesis, if necessary, is produced, will interrupt the morbid chain of nervous irritability which prolongs the vascular excitement, and, for the time being at least, will calm the pulse and relax the skin. This it will do, most happily at times, even though moderate doses of diluted brandy may, at the same time or soon after its constitutional action is apparent, be required to sustain the vital powers. But when a more distinct intermission is thus produced, quinine, in ample doses, with sufficient morphine to control its irritative tendency, must be promptly administered. For we know that in these complicated and perplexing cases, all treatment, with the view of remedying the organic lesions, or to improve the

general health, will be in vain, until the element of periodicity is either destroyed or held in strict abeyance. When this is done, I have found nothing better to aid the recuperative efforts of the system than a powder composed of one part of washed sulphur and two of charcoal, in teaspoonful doses, morning and evening, together with extract of gentian, ferruginous preparations, when these are clearly indicated, and wise dietetic measures.

Under this treatment, it is surprising how rapidly, at times, the spleen and liver will return to their natural condition, and the wretched victim of a badly managed Intermittent be restored to health.

Permit me here distinctly to impress upon the memory that until the patient is entirely freed from the disease, the slightest recurring fever, with or without a chill, must be promptly arrested. Of course, I allude to paroxysmal fever—not to the anæmic excitement arising from the existing lesions and aggravated by the impoverished state of the blood. The former may again and again require the antiperiodic; the latter will usually yield to the general treatment already named.

REMITTING FEVERS.

Physicians know that mild Remittents will yield as readily to simple treatment as common Intermittents. But we occasionally encounter cases of this variety which are almost continuous, in the treatment of which, our knowledge and best efforts are called in requisition. The practice of administering quinine during brief and imperfect remissions, with the view of "cutting short" the fever, although it may occasionally succeed, has been, upon the whole, productive of much mischief, and can not be too strongly condemned. The treatment which I have found most safe and successful is the old practice of endeavoring to shorten the exacerbations, prolong the remissions, and, as far as pos-

sible, change them into intermittents. This course is still recommended by systematic writers, but I have thought that the measures to accomplish this object have not been laid down with sufficient precision and minuteness.

We must bear in mind that some of our Remittents, and most of the cases in which the fever is so nearly continuous that the remissions are scarcely discernible, are constantly liable to produce congestive and inflammatory conditions of important organs. In my experience, the most dangerous, if not the most frequent, of these determinations is to the brain. We are gravely assured by systematic writers that when an inflammatory state of some portion of this organ arises in the progress of a fever, the symptoms can not well be mistaken. This is only true, in many fatal cases, after the inflammation has so far impaired the delicate organism that well marked symptoms of its inflamed condition are superadded to the ordinary febrile appearances, Pain in the head being seldom absent in this class of fevers is too apt to be regarded as the mere product of the general febrile irritation until the period for allaying, what is too often considered as mere functional disturbance, passes by, and alarming symptoms of cerebrites or meningitis are developed, too late, perhaps, for remedial treatment.

When called to a recent case of this form of fever, developed in a reasonably sound constitution, if pain, generally diffused and excessive heat, firm and rapid pulse, prevail, be the patient young or old, I have generally abstracted sufficient blood from the arm, rapidly from a large orifice while he was bolstered up in bed, to produce approaching syncope, and its concomitant general perspiration, and thus, at once, before the strength is reduced by the disease and subsequent applications, relieve the immediately urgent and most distressing symptoms. I then apply a cloth, wet with camphorated spirit, lightly sprinkled with aqua ammonia, over the stomach to guard against its usual irritability, and

immediately administer a bolus composed of blue mass and morphine, with occasionally a little ipecac, washed down with cold water made moderately alkaline by admixture with bicarbonate of soda. In three hours this is followed by some of the least irritating cathartics, until the alvine canal is thoroughly evacuated. This treatment, in many instances, will bring the case, almost immediately, within the reach of the antiperiodic remedy, especially if it is of marsh-miasmatic origin.

But it will occasionally fail permanently to produce the desired result, even in fevers of paludal origin. On repeating my visit, should the intermission have proved short and incomplete, with a return, more or less severe, of all the symptoms, the patient again feeling perfectly wretched—literally "the whole head sick and the whole heart faint"—dry hot skin, pain and aching all over the body, particularly in the head, back, and joints, with thirst and nausea, my duty is perfectly plain. I have no right to permit this sufferer to linger in distress a moment longer than is absolutely unavoidable.

But how can we relieve him in the briefest possible time? Bleed again? No.—Bleeding, alone, will not cure a fever; and on carefully feeling the pulse, we may find it perhaps more frequent, but less firm under the fingers. Shall we prescribe fever powders, neutral or other fever mixtures? No.—The veriest trash ever invented with which to afflict a poor sick mortal—to irritate and inflame his stomach and intestines, until they are deprived of every particle of the natural secretion designed to lubricate and soothe them, too often only suspected when the tongue becomes both red and dry—are the things laid down in the books with professional gravity as "fever powders and mixtures"—compounds of James' powder, camphor, antimony, nitre, and other antiquated preparations of narcotics, salts, and alkalies. Shall we give him the Veratrum Viride? No.—

His stomach is already so irritable that he can scarcely bear upon it a teaspoonful of cold water. Will not a dose of morphine, with or without a slight effervescing draught, do him good? No, not yet.—A light dose may irritate; a large dose may do incalculable mischief, until the heat is carried off, and out of the system, the brain and deep organs relieved, the nervous centres soothed, and the imprisoned capillaries set free. Shall we apply sinapisms or blisters, on the principle of revulsion, or as derivatives to relieve the pain and protect the threatened organism? No—assuredly not, while the heated blood is wildly coursing through its vessels, and the skin is hot all over. What, then, shall we do? Is there a conscientious physician among us all who has not more than once asked himself this question, while standing by the bedside of his fevered patient, and calling up, amid doubt and hesitation, the long catalogue of remedies just named?

Our answer is simply a recommendation to apply cold water, in accordance with the suggestions of most of our writers, from the days of CURRIE down to the present time. But we are frequently told that this has been tried already, by means of sponging, wet sheets, or dashing cold water over the body, and, that it has made the patient so chilly and uncomfortable he will not submit to a repetition of the remedy. Now, I have used cold water applications steadily and perseveringly for thirty years in almost every case of fever that has fallen under my observation, and have never yet found a patient unwilling to submit to this remedy when properly used. There must be a fault somewhere, or its general application would be less objectionable, and more universal. For, of all the methods devised to make a fevered patient speedily comfortable, I know of nothing equal to it. Let us then see what directions the books give us respecting its application.

WATSON condemns cold affusion, but says:

"A modification of this expedient is, however, often of great use in abating the morbid heat, and soothing the uneasy feelings of the patient. I mean the practice of cold or tepid sponging of the surface. This is one of the remedies which, when the symptoms appear to indicate it, deserves to be tried; and the propriety of continuing or of discontinuing it may be determined by a very simple test; *namely, the feelings and wishes of the patient himself respecting it.* It is most adapted to the more inflammatory, and least adapted to the more typhoid types of the malady."

Prof. WOOD remarks that

"The external application of cold water is also highly beneficial in the febrile exacerbations. Much comfort will be afforded by simply sponging the arms, feet, and face; but a more efficient method of application in reference to a solution of the paroxysm is that of affusion, as recommended by Dr. CURRIE, of Liverpool." . . . "The remedy should be employed only when the surface is universally hot and dry, *without any sense of chilliness on the part of the patient.*"

I quote from these authors because their works are deservedly held in high estimation in this country, and compose the text books for our students; and also for the reason that I have not found other writers much more minute in their directions respecting this "*sponging*" of the body with cold water. None of them are sufficiently explicit on this subject; and while the opinion prevails that cold water must not be applied while there is "a sense of chilliness on the part of the patient," it will be constantly neglected. For a sense of chilliness on the slightest change of position, or on lifting the bed clothes, is a very frequent accompaniment of the early stages of most fevers, particularly in damp and cold conditions of the atmosphere, when the temperature of the room is not properly regulated. And this is not strange, when we remember that every portion of the skin is richly supplied with nerves, which are in immediate contact with an equally close web work of minute capillaries, rendering its whole

surface acutely sensitive, when at fever heat, to the slightest atmospheric changes.

Now, it is actually inhuman, if not positively dangerous, to imitate the reckless disciples of PRIESNITZ, by rudely applying cold water to this excitable tissue, before its extreme susceptibility is blunted, and tolerance of the remedy established. Can this always be done? Certainly, by gentleness and tact. My mode of applying this remedy when the skin is hot and morbidly sensitive is as follows:

Cover the pillows with an oil cloth, if there is one at hand—if not, with two folded sheets; bathe the forehead and nape, and thoroughly saturate the hair with moderately cold water; then wring out two large towels, in water as cold as can be obtained, and cover the head entirely with them, passing the cloth under the ears. Next, dip your hand in water moderately cool, and very gently bathe the face, neck, and other parts of the body in succession. Be careful to keep the patient properly covered while you repeat the moistening of the hand and bathing, until the extreme sensibility of the skin is allayed, which will require constant applications for fifteen or twenty minutes. In the mean time the towels on the head must be repeatedly wrung out and carefully reapplied. Now, bathe the neck with a cold wet soft cloth —not with a sponge—freely, but gently, and then apply a towel wrung out in the coldest water entirely around it. In the same cautious manner—at this stage substituting for the naked hand a large soft cloth—proceed to cool the entire body until its temperature is considerably reduced, and then apply cold wet towels along the entire spine and over the chest and abdomen; constantly remembering to keep the head as cool as possible.

If the case is fever of the Remitting type, now is the time to administer the effervescing draught and anodyne. Continue the cold applications until the anodyne produces

sleep; and, in all probability, there will be a complete intermission within an hour.

But, should the case prove unusually obstinate, and fever again arise within a brief period, the constant application of cold water, especially to the head and stomach, will restrain the usual tendency to nausea, and now, the Veratrum Viride carefully, but steadily given, will probably arrest the further progress of the fever, or change its type into that of a distinct Intermittent.

Doubtless, there are those who may be disposed to smile—perhaps to sneer—at this simple attempt to describe how cold water may be applied to the skin of the most irritable child or the most sensitive adult. But there are others who will try this method before loading the stomach with irritating drugs, and these will be rewarded by the grateful thanks and permanent friendship of those they have relieved with this apparently simple, but really powerful remedy.

The moistened hand of the nurse should be applied at first, because it tempers the water, and there is a soothing feeling in the gentle touch of the human hand which can not be communicated by the application of a sponge or a cloth.

TYPHOID FEVERS.

For all practical purposes the Fevers of Michigan may be called Intermittent, Remittent, and Typhoid, and thus avoid the endless confusion arising from a multitude of names for things essentially identical. The whole of the Bilious Fevers of the West are merely modifications of Intermittents or Remittents, and Typhoid is a capital name for those continued fevers which can not be resolved into the former, and which, sooner or later, assume the appearance, without however the contagious character, of real Typhus.

Until it is proved that we have actually imported the

local contagion from the crowded cities of Europe, or from the equally crowded and filthy localities of our Atlantic border, I shall not believe that a genuine case of Typhus has ever been seen in Michigan. There is nothing in our atmosphere or circumstances to generate this deadly malaria. Our people are not packed together in closely confined dens, suffering amid the extremes of poverty and vice, but have the air of Heaven all around them, diluting and expelling the animal exhalations as they arise, and purifying each nook and corner of their abodes.

In consequence of the rapid agricultural improvement of Michigan, including extensive drainage, the swamps and marshes are steadily disappearing, and our climate is undergoing a corresponding change. Bilious Fevers with us are far less prevalent than formerly, but Typhoid Fevers have increased as those have disappeared — fortunately, however, by no means in the same ratio. Most of the Typhoid Fevers are of the variety named by Prof. Wood "Enteric," but we have occasional cases in which we find but little manifestation of intestinal irritation, the prominent symptoms being a dull pain in the head, which usually ceases after a few days, listlessness, drowsiness, continued fever, flushed checks, torpid secretions, tongue coated and of a clayish color. In the course of a fortnight, at times within a week, the tongue assumes a dark appearance, almost black, and usually has a greasy look and feel; occasionally, however, it is very dry. As the dark color of the tongue increases, unconsciousness increases also. The patient frequently falls into a comatose state, from which he is aroused with difficulty, and then we find the senses all impaired, and articulation thick and difficult; the skin remains dry; the pulse quick and feeble; the bowels inactive, but seldom largely tympanitic; the urine scanty and high colored; the stomach usually quiet. As he lies, apparently in a profound sleep, we notice sub-

sultus and other characteristic symptoms of general nervous involvement. Twenty-seven years ago I first noticed this variety of fever, and during the fall and winter of that year I treated upwards of thirty cases. For ten years after this, although in active practice, I have no recollection of meeting with a single case, but since the latter period I have occasionally seen the same disease, and readily recognized it as an old acquaintance. It resembles Typhus more closely than the Enteric variety, but the petechial spots are different, and it is not in the least contagious; —not so much so, indeed, as the other variety; as we now and then have several members of the same family prostrate with the Enteric form, but I do not remember noticing more than one case, at a time of the other malady, in the same house. I treated a lady for this disease last spring, who resided in a dwelling containing several other persons, not one of whom was in the least affected.

Having expressed my belief that our fevers, irregularly designated as Typhus, Typhous, and Typhoid, are mere varieties of the same disease, they may be regarded as Enteric or non-Enteric, and the general treatment must be essentially the same, wisely modified, however, in each case, so as to adapt it to the removal of the special local involvements of the organism, which so frequently diversify the symptoms as to induce the inexperienced to fear that they have before them an obscure and unknown disease.*

The Enteric variety is admirably described by Prof. WOOD, and his treatment is equally admirable. The oil of turpentine, given as directed at the proper time, is in-

*I am aware that this division of Typhoid Fever will not be regarded as strictly scientific, but with my views, I can not assent to the proposition that our continued fevers must be either Enteric or Typhus.

dispensable for the removal of intestinal lesions, and we are under deep obligations to him for bringing it so prominently before the Profession in the treatment of this malady.

In the hemorrhagic condition, in which the blood is in a dissolved and uncoagulable state, the muriated tincture of iron is an efficient remedy, and better adapted to remove this condition than acetate of lead, or the ordinary astringents. But when the bleeding is sudden and alarming, as a temporary expedient, I have found nothing equal to full doses of the lead.

Our non-Enteric Typhoids are analogous to the fever which, as stated, prevailed here, as an epidemic but not contagious variety, many years since. They usually pass more rapidly than the Enteric forms into a low condition, owing to the more immediate and profound impression made upon the whole nervous system, and consequently require supporting treatment earlier than the former variety.

When called to one of these cases, we must look well to the brain, as the greatest ultimate danger arises from involvement of this organ, rather than from any tendency to the peculiar intestinal lesions of the enteric form. An uneasy feeling in the head, amounting in most cases to a dull heavy pain, is rarely absent. The extremities are frequently cold, while the rest of the body is preternaturally warm. The treatment should be commenced by bathing, *precisely as heretofore directed, when the slightest feeling of chilliness is present*, omitting the extremities, which must be covered as long as they continue cold with cloths wrung out of water as hot as can be borne. Should pain in the head be an urgent symptom, a quantity of cold water must be poured over it from a slight elevation, and the cold wet towels immediately re-applied. The bowels must now be evacuated by means of a prescription similar to the one recommended when speaking of Remittents.

The Veratrum can then be tried. If it will do good at any stage of this fever, we must not longer delay its exhibition. But I have found, more than once, and even after the patient was brought so fully under its influence that stimulants were required to sustain him, that the coating of the tongue would assume the dark appearance customary in this disease, and the patient become more and more dull and stupid.

As previously remarked, pain in the head usually ceases in a few days; and I have attributed early relief from this symptom to the judicious and faithful application of water, which equalizes excitement and removes congestion. As soon as the tongue puts on the dark blackish appearance heretofore alluded to, the patient will require quinine and carbonate ammonia, and, if additional stimulants are needed, strong mustard tea, with perhaps a little brandy and water. In this, as in the other variety I seldom omit the use of mercurial alteratives. These remedies, with the addition of sinapisms and blisters, have been found so successful in combating our non-Enteric Typhoids that, when reflecting upon the usual termination of my cases I have great cause to be well satisfied with the result.

Although, as stated, our climate is undergoing a change, marsh miasma to some extent is still annually generated, even in the oldest improved sections of the State, and this element influences, more or less, the character of our Typhoid Fevers. Hence, we have Bilious and Typhoid, or Enteric and non-Enteric, Intermittents and Remittents, occasionally prevailing at the same time, and in the same localities. This causes an intermingling of types peculiarly embarrassing to physicians from non-paludal countries, who have recently settled as practitioners in the West, as our Typhoids frequently assume forms of periodicity which must be met by quinine in antiperiodic doses; not so much with the view of cutting short the fever, as to remove a condi-

tion highly unfavorable to the remedial action of our general remedies.

Dr. Norwood found the Veratrum Viride so efficient in the treatment of the Typhoid Fevers of the South, and recommended it so highly, that I commenced its use in our Typhoids, with my prejudices in its favor; but I soon discovered that although this medicine, when carried to the point of nausea or vomiting, would reduce the frequency of the pulse, and, for the time being, relax the skin, soon after the nausea subsided the general condition of the patient was not improved. I also found that doses less than sufficient to produce nausea had no beneficial effect, and constant nausea, or frequent emesis, produced by this or any other means, is positively dangerous, from its exhausting influence, in Typhoid Fevers.

I have tried it in the Enteric and in the non-Enteric varieties. The former partake more of a sthenic type at their inception than the latter, as these are frequently asthenic from the first. When used early, in those cases which present sthenic appearances, I have thought the Veratrum brought them more immediately within the influence of the other appropriate remedies, and rendered them milder and more manageable in their subsequent course.

But whoever expects that this medicine will exercise such remarkable powers over the Typhoid Fevers of Michigan as were witnessed by Dr. Norwood in his cases, will be sadly disappointed.

[*To be Continued in the May No.*]

ART. LVIII.—Meteorological Register for Month of January, 1859.

By L. S. HORTON, House Physician to U. S. Marine Hospital.

Altitude of Barometer above the level of the sea, 597 feet. Latitude, 42° 24′ N.; and Longitude, 82° 58′ W. of Greenwich.

Date.	Barometer.			Standard Thermometer		Hygrometer		Force of Vapor in Inches			Relative Humidity			Winds—Direction and Force.			Fall of Rain.		
	7 A.M.	2 P.M.	9 P.M.	7	2	9	7	2 P.M.	9 P.M.	7	2	9	7 A.M.	2 P.M.	9 P.M.	BEGAN.	ENDED.	INCHES.
1	29·00	29·00	29·05	32	32	32	30	30	29	·155	·155	·126	·79	·79	·69	W. 1	W. 1	W. 1	5, a.m.		
2	29·10	29·10	29·10	30	34	32	27	32	30	·113	·170	·144	·67	·80	·79	S.W. 2	S.W. 2	S. 2		5, p.m.	·15
3	29·08	29·02	29·00	32	35	32	30	32	28	·155	·142	·108	·79	·69	·59	S.E. 1	S.E. 1	S. 1	5, p.m.	7, p.m.	·30
4	29·00	29·00	28·95	31	32	32	28	30	30	·119	·144	·144	·68	·79	·79	W. 2	S. 2	S. 1			
5	28·90	28·90	28·85	37	44	34	34	40	32	·157	·195	·170	·71	·67	·80	S. 2	S. 2	S.W. 2			
6	28·88	28·88	28·90	34	38	34	32	35	30	·170	·165	·121	·80	·71	·61	S.W. 2	W. 2	W. 1	10.30 p.m.		
7	28·90	28·90	28·90	32	36	32	30	34	30	·155	·170	·155	·79	·80	·79	N.W. 2	N.W. 2	W. 1			
8	28·90	28·90	28·92	27	33	28	25	30	25	·112	·132	·100	·76	·70	·65	W. 2	W. 2	W. 2		11.30 p.m.	1·15
9	29·00	29·05	28·94	0	7	5		4	3		·018	·027		·30	·50	N.W. 2	N.W. 2	N.W. 2			
10	29·10	29·28	29·12	2	11	5	0	5	3	·021		·027	·43		·50	S. 1	N. 1	W. 1			
11	29·30	29·25	29·10	-11	7	27		5	25		·032	·112		·53	·76	W. 1	S.W. 1	W. 2			
12	29·10	29·00	29·00	28	38	35	25	35	33	·100	·165	·162	·65	·71	·79	W. 2	S.W. 2	S.W. 2			
13	29·00	28·90	28·80	40	42	38	35	38	35	·139	·177	·165	·55	·66	·71	S.W. 2	S.W. 2	S.W. 1	11, p.m.		
14	28·75	28·80	28·76	37	38	34	35	35	32	·178	·165	·155	·80	·71	·79	S.W. 1	S.W. 1	S. 1			
15	28·70	28·72	28·74	34	34	32	30	32	30	·127	·155	·144	·65	·79	·79	W. 1	W. 2	W. 1			
16	28·80	28·80	28·80	33	35	30	32	32	28	·138	·142	·130	·89	·69	·78	W. 2	S. 2	S. 3	3, p.m.		·09
17	29·00	29·15	29·20	27	30	24	25	28	20	·112	·130	·057	·76	·78	·43	W. 2	S.W. 2	S.W. 1	5, p.m.	8, p.m.	·04
18	29·30	29·25	29·20	16	33	32	14	31	30	·059	·151	·144	·65	·80	·79	W. 1	S. 2	S. 1			
19	29·10	29·02	29·00	31	39	34	30	36	32	·155	·173	·170	·89	·72	·80	S. 2	W. 2	S.W. 2			
20	29·00	28·90	28·90	40	47	37	38	45	35	·203	·273	·178	·82	·84	·80	S. 3	S.W. 3	S.W. 2	5, p.m.		·04
21	28·82	28·90	28·95	34	36	30	32	32	25	·170	·129	·078	·80	·71	·46	S.W. 2	S.W. 2	S.W. 2	11, p.m.	8, a.m.	·02
22	29·20	29·25	29·25	7	12	4	4	8	0	·018	·017		·30	·22		S.W. 3	W. 2	W. 1		2, a.m.	
23	29·35	29·35	29·30	2	11	8	0	6	4	·121	·051	·007	·43	·88	·11	S.W. 2	S.W. 2	S.W. 2			
24	29·30	29·30	29·25	18	38	32	15	35	30	·052	·165	·144	·52	·71	·79	W. 1	S.W. 2	S.W. 1			
25	29·20	29·15	29·15	31	37	32	28	33	30	·119	·136	·144	·68	·61	·79	S. 1	S.W. 2	S. 3			
26	29·18	29·10	29·00	27	37	34	25	35	32	·112	·178	·170	·76	·80	·80	W. 2	W. 2	W. 2			
27	29·00	29·00	29·00	33	40	32	32	36	30	·168	·160	·155	·89	·64	·79	S.W. 2	W. 2	W. 1	2, p.m.	6, p.m.	·18
28	23·80	23·80	28·80	32	37	33	30	35	30	·155	·178	·132	·79	·80	·70	S.E. 2	S.E. 2	S. 1			
29	28·80	28·80	28·80	30	37	32	29	34	30	·149	·157	·155	·89	·71	·79	N.W. 1	N.W. 2	W. 2			
30	23·90	28·95	28·95	23	32	30	20	30	28	·074	·155	·130	·59	·79	·78	W. 2	W. 2	S.W. 1			
31	29·05	29·10	29·10	26	34	28	25	32	25	·123	·170	·100	·87	·80	·65	S.W. 2	S.W. 2	S.W. 1			

Bibliographical Record.

BYFORD ON MUSCULAR EXERCISE.

The work under consideration is a pamphlet of twenty-six pages, containing an essay upon the "Physiology, Pathology, and Therapeutics of Muscular Exercise," by W. H. Byford, M. D., Professor of Obstetrics in Rush Medical College. The work contains, in addition to the ordinary sound doctrines on the subject, some points of special interest, as being new and worthy of more consideration than falls to the lot of most pamphlets.

The first few pages are occupied in stating the writer's position upon various preliminary points. He adopts the views of those who attribute to the capillary circulation a separate motor power, dependent upon the chemical attractions and repulsions of the contiguous tissues for the elements of the blood. Out of this grows his first main proposition — viz., that *The rapidity of the circulation of the blood depends directly upon the activity of chemical change in the tissues*, and not merely indirectly through the action of the heart. He allows *a share only* of the blood-moving power to the heart.

In this part of the essay, Prof. Byford gives an interesting account of a series of experiments conducted by him in what he terms "static exercise." By "static exercise" he means the strong and rigid contraction of all the muscles of a limb, at the same moment using both flexors and extensors in antagonism, so as to keep the limbs entirely

unmoved. Thus, one experiment was performed by bringing simultaneously into action all the flexors and extensors of one inferior extremity, and holding them thus by force of will, without allowing the limb to move. He finds that the effort of holding one arm thus horizontally accelerates the pulse from four to ten beats per minute. If a person, sitting quietly in a chair, put in traction in this manner all the muscles of one hip, thigh, and leg, the pulse will be accelerated twenty or twenty-five beats. If both inferior extremities are treated thus simultaneously, the pulse rises about thirty-five beats.

Prof. B. is of the opinion that this acceleration is not due to reflex nervous action upon the heart, but is owing to the fact that the contraction of muscle, on the principles before stated, causes an increased flow of blood through them, in consequence of the increased interstitial affinity and chemical changes; and that the torrent of blood thus thrown home to the heart, acts directly upon it to increase the frequency of its pulsations. These experiments are of much interest, on account of their practical bearing. They show that many of the physiological effects of muscular exercise, as evinced accelerated circulation, fatigue, increased secretion, etc., may be obtained perfectly by a patient, without stirring an inch in his bed. Dr. B. proposes to make application of this mode of exercise to keep up the health and vigor of patients who are confined by fractures, or other accidents and diseases which do not contra-indicate the muscular contractions of that sort. There is not a particle of doubt that this course would be in the highest degree beneficial and would save that long sequel of feebleness which attends the convalescence of some surgical patients.

In treating of the results of deficient exercise, Dr. B. gives an account of some experiments undertaken at his request by Dr. J. N. Graham. Dr. G. confined some

dogs in boxes, so arranged as to supply all their wants, but completely to prevent exercise. After a certain time the dogs were killed, and the lungs were found infiltrated with tubercle.

Finally, Dr. BYFORD powerfully illustrates the necessity of exercise, by the great truth taught by PAGET—viz., That the action of every organ *impresses chemical changes upon the blood which are necessary to fit that fluid for the nutrition of other organs.* Hence, if the muscles are not duly exercised, the blood is deteriorated —it is not fully *manufactured*—it is not prepared for its office.

The discourse closes with a series of practical directions respecting the choice of different exercises for different cases. The work is full of suggestive ideas which are well worthy of further development. X.

THE HISTORY OF PROSTITUTION, &c. By WILLIAM W. SANGER, M. D., etc.

IN our January issue we noticed the above named work, and made extensive extracts from it; we now, in accordance with a promise then made, propose to give a few statistics pertaining to New York Prostitution.

The *control* of the evil has never been, we believe, attempted in the United States. *Prohibitory* municipal law is generally found in the Statute-Books, but we venture the assertion that not a city of twenty thousand inhabitants can be found which is not a striking illustration of the impotence of such legislation. New York is as enterprising in Prostitution as she is in Commerce; and as wealth is the natural product of the one, so disease and death are the legitimate results of the other. We certainly shall be pardoned for dwelling so much upon this latter point; for it is truly fearful to contemplate the devastating influences which originate in the crime under

consideration, and it is ardently to be hoped that the attention of municipal, and even State, authorities may be directed, more earnestly than ever heretofore, to the hygienic view of the subject.

From our author we gather the following facts:

Four years only constitutes the average duration of a prostitute's life! There are *known* six thousand of this class in New York; consequently the annual mortality must be rated at fifteen hundred. Fifteen hundred out of six thousand! Fifteen hundred *new recruits annually drawn from the yet uncontaminated, to keep good the number!* The amount of mortality in the other sex, consequent upon Prostitution, can not be estimated, but physicians are aware that, either directly or indirectly, it must be very considerable.

The ratio of mortality in the offspring of prostitutes is four times greater than that which is observed in the offspring of all other classes in New York. It would be interesting in this connection, were it possible, to ascertain the proportionate relative mortality among those children who are born of healthy parents, and those one or both of whose parents are, or have been, affected with constitutional syphilis. This ratio it is impossible to establish, but all practicing physicians know that could it be ascertained, it would be startling in its exhibition.

One-half of these six thousand prostitutes are mothers, and, as would be naturally expected, more than half of their children are illegitimate.

One-fifth of the six thousand are married women.

A large majority are from fifteen to twenty-five years of age.

Four millions of dollars ($4,000,000) are invested in the *business* of Prostitution; and an annual expenditure of more than seven millions ($7,000,000) is made in consequence thereof! Add to this sum the amount expended

privately, which will materially swell the aggregate, and we may well conclude that Prostitution is a costly crime.

With regard to the amount of syphilitic disease in New York only an approximate result can be obtained. There were treated at all the public institutions, during 1857, nine thousand eight hundred and forty-seven cases. This number includes only such cases as were *registered* as syphilis, many patients registered for some more prominent disease suffering undoubtedly at the same time from some form of venereal malady. This number, too, is probably hardly more than a tithe of the whole number who either treat themselves or apply to the private practitioner for aid. Our author reckons the whole number to be *seventy-four thousand!*

In conclusion, we feel constrained, in behalf of the Profession, to express our great obligations to Dr. SANGER for the work before us. It has evidently cost a vast amount of labor, and may be made productive of a corresponding amount of good. G.

BOOKS RECEIVED.

Twentieth Annual Report of the Board of Trustees and Officers of the Central Ohio Lunatic Asylum, to the Governor of the State of Ohio, for the Year 1858.

Editorial Department.

The Importance of a Knowledge of the Ancient Languages as a part of a General Education, and as a Prerequisite to a Medical Education.

In a former article an intimation was given that, on a future occasion, some suggestions would be offered on the above general theme. It was then also stated that the agitation of this subject, however important and interesting in itself, has not been of our seeking. Our relations to the Department of Science, Literature, and The Arts, in the University of Michigan, are such that had we not been urged into the expression of opinions in a manner not to be resisted, we should have avoided making comparisons of the studies pursued there, which, like other comparisons, are in danger of being odious. Our sole object, however, is to arrive at the truth; feeling at the same time confident that if anything we may say or quote shall have a tendency to unduly exalt the importance of a thorough study of the English Language and English Literature, and the Natural Sciences, or to disparage the Ancient Languages and Classics, influences will not be wanting, sustained by precedent and ancient custom, to turn the tide in the opposite direction, and keep the study of Nature and English within, at least, due limits.

A full discussion of this subject would require more time than will be consistent with other duties, and more space than can be afforded in these pages. Brevity will therefore be studied; and we shall endeavor to make our remarks suggestive rather than elaborate.

Education, in its broader sense, is understood to be the cultivation of the individual, and the development of all his powers. In its more limited sense, as applied to schools and studies, it consists in imparting knowledge and discipline to the mind, and furnishing it with the means of acquiring further knowledge and discipline, thus developing the mental powers, and supplying the mind with such ideas as will increase the enjoyment of the recipient, and his usefulness to others. It has been concisely defined, "the process of acquiring that knowledge of our CREATOR, of ourselves, and of external nature, and of the formation of those habits of enterprise and activity, which are necessary to the evolution of our highest qualities, and the performance of our parts with intelligence and success, in whatever situation placed."

All true systems of education must have reference to the powers of the mind, and the objects on which those powers can be exercised, in order properly to secure the great purposes of enjoyment in ourselves and usefulness to ŏthers.

The powers of the human mind may be divided into the sensational, emotional, and intellectual, to which must be added the active governing power, or will. This is essentially the same as the division recognized by COUSIN,—into Sensibility, or feeling; Intelligence, or knowing and reasoning; and Will, or activity; and all these powers are conjointly employed in most acts of life. A well trained man must have all these powers cultivated. Education consists in their proper supply of aliment—in their proper development in harmony. Each set of faculties must be supplied by its own proper nourishment, though the whole are so bound together that the successful cultivation of any one, in some measure improves the rest.

An able recent writer (Rev. T. HILL, of Massachusetts, in an address before a learned Society of Harvard College),

includes all the objects of knowledge—all possible sciences—under the following heads, viz.: Theology, the science of the Divine Being; Psychology, the science of the human mind; History, embracing a knowledge of all the thoughts and achievements of men; Natural History, including not merely Zoology, Botany, Geology, &c., but also the Chemical and Mechanical Sciences; and, lastly, Mathematics, or a knowledge of numbers, quantity, and form.

These divisions of science have a natural dependence, and, in a certain sense, grow out of each other; the last named being the primary or elemental, the others following in succession. The powers of the mind, though existing and expanding together, are more naturally developed in the order of its ability to grasp these divisions of knowledge. The child first conceives ideas of number and form; next, of the character of objects around him; he then has conceptions of the acts and thoughts of others; subsequently, he rises to the contemplation of the powers of the human mind itself, and lastly, to the Divine Mind, the object of Theology.

The mind should be cultivated in the order of its development. It should first be taught and exercised in numbers and forms; next, in the objects of nature; next, in the acts and thoughts of men; and, lastly, in the philosophy of mind itself, human and Divine. As the powers of the mind, to some extent, expand simultaneously, all mathematics are not to be taught before natural history begins, and all of natural history is not to be learned before history commences; neither is psychology and theology to be entirely neglected until every thing else is sufficiently learned. Indeed, as no young mind can master all the higher departments of the primary studies, and as no human being can possess all knowledge, the learner with very imperfect attainments in one division, must proceed to the next, and, at last,

after a lifetime of varied and recurring efforts, many things must be left unexplored by those of the most extended attainments. Yet, as before stated, there is a succession in the development of these mental powers, and of the adaptedness of these studies in the order of nature, and reference should be had to them in the systems of education.

Now, as attainment of all human knowledge is impossible to any one man, and as the sum of acquirements by most, in comparison to the whole, must be limited indeed, the subjects of study to be selected, and the amount of labor to be devoted to each, become matters of the most serious moment. There can here be no absolute rule—no Procrustean bed; a judicious selection must depend upon the capacities of the student, and the length of time he can devote to study; and reference also must be had to the professional pursuits he is to follow in life. It is an old, but none the less true, observation, that "the most useful things for boys to learn are those which they are to practice when they become men."

As a general statement, however, it may be averred, that the relative importance of the different departments into which science is divided, must, as means of mental development, be in proportion to their elemental character. A knowledge of numbers and forms must stand first. Those savage tribes most limited in their knowledge of numbers are lowest in the scale of intelligence. Next to mathematics would be a knowledge of external nature, or natural history; next, history in its broad sense, including the languages, thoughts, and actions of men; and, afterwards, psychology and theology—these belonging to higher departments it is true, and essential to a full educational development, yet, as speculative sciences, they must come last in a system of mental cultivation.

Languages, as subjects of study and learning, belong to the department of history; they belong to the thoughts

and acts of men, and would be placed third in importance, though a knowledge of the use of words—of one's vernacular tongue—is essential, as an instrument of progress, in every kind of knowledge.

It is alleged by some that the study of the Greek and Latin classics comprises more valuable discipline for the mind, and furnishes more food for thought, than is to be found in the pursuit of the whole range of the natural sciences; and it is true that even at the present day many of our educational institutions are conducted upon this assumption. But, says the author before referred to:

"This opinion can be sustained neither from experience nor from the nature of things." "The Greek and Latin classics, however thoroughly studied, give us nothing of Natural History, or almost nothing." . . . "That an undue estimate of the value of Greek and Latin should have been made in the sixteenth century is by no means surprising. The culture of Europe had for a long time been very narrow. When the importance of knowledge began to be felt the happy change was in a great measure due to the influence of Greek authors. . . . The Greek literature appeared thus to be the California from which these precious treasures of science came, and the Latin language was, at that day, the easiest mode of approaching the Greek. Thus a knowledge of these two tongues was a key to all the learning of that period. But those languages hold now a very different place. There is not a single department of human thought in which modern nations have not surpassed the achievements—I do not say the ability—but the achievements, of the ancient Greeks; new sciences have within the past century sprung into existence, and attained rank of the highest importance, the germs of which were, in ARISTOLE's day scarcely visible. New applications of science to the useful and to the fine arts have changed the whole aspect of civilized society. The scholar of the present day is to labor with, and for, a people whose whole mode of life and mode of thought is different from that of the people of a hundred years ago. Shall the training which prepares him for his work be the same as that of a hundred years ago? As the course of events in the world's history runs on, and more important changes are developed in the state of human society, can it be expected that all those who desire a liberal culture for themselves or their children, should be still satisfied with a course of instruction that devotes a principal part of the student's time to a critical investigation of the structure of the dead languages?"

He further says:

"I am assuming that the attainment of knowledge itself is one of the objects for which the student should aim."

He protests against the assumption that

"The student should look upon knowledge as valuable only as it exercises, and by exercise, invigorates the mind."

"It is not a question of expediency, or a question of the times, a concession to the popular desire; but a question of inherent necessity; a question of absolute duty. There can be no true education that is not founded upon a knowledge of the mathematics; a thorough cultivation of the physical powers, including a discipline of the senses; and an acquaintance with the laws of the material world, both organic and inorganic." . . . "In this scheme of education the classics hold a *subordinate*, but still a prominent and honorable place, in the great department of *History*, while the new sciences of Chemistry and its allied branches, in all their multiform applications, . . . take an equally honorable place in the great department of Natural History."

So much for Mr. HILL before the learned gentlemen of Harvard, where his views seemed to be highly approved.

The distinguished GEORGE COMBE, who, whatever may be thought of his views respecting the physiology of the brain, must be regarded as a man of liberal culture, of the clearest perceptions, and of the most practical common sense, in his *Lectures on Education*, presents many thoughts worthy of consideration. On the subject of Language he says:

"Words are mere arbitrary signs for expressing ideas in the mind; and the best condition of an individual is to possess ample ideas, and an equally extensive stock of words. It is better, however, to have ten ideas, and only ten words to express them, although all the words should belong to one language, than to have only *one* idea, and *ten* words in as many *different* languages for communicating it. For example, a monk who has only seen a horse passing by the window of his cell, may know that this animal is named in Greek, *hippos;* in Latin, *equus;* in English, *a horse;* in French, *cheval;* in Italian, *cavallo;* in German, *Pferd;* and, by some persons, he might be supposed to be, in consequence, highly learned. He is indeed

considerably learned, but not on the subject of the horse itself, but only on the names by which it is designated in different countries. His *real* knowledge would be only that which he had gained by looking at the creature through a window, and would not be increased by the acquirement of the *six* words to express the *name* of the animal. The person of a man is neither stronger or taller, nor more graceful, because he has six suits of clothes, than it would be if he had only one; and so of the mind. A stable-boy would know more of the horse than the monk. Hitherto, education has been conducted too much on the principle of looking at the world only out of the window of the school and the college, and teaching the *names* of things therein in a variety of languages to the neglect of the study of things themselves; whereas man requires positive knowledge of creation, its elements and laws, and has little use for words which go beyond his stock of ideas."

Keeping in view the principle that ideas of things are of first rate importance, and that words are only useful in expressing them, he proceeds to discuss the value of Greek and Latin as elements of education, and after giving an account of the origin of introduction of their study in the dark ages, when there was no refined literature but in those languages, and no one could become learned without studying them, he says:

"In the course of time, however, the nations of Europe, aided by the invention of printing, and, latterly, by the stupendous discoveries in science and the arts, as well as by the wide diffusion of Christianity among the people, far outstripped the Greeks and Romans in their attainments. The modern nations made gigantic strides in knowledge, morality, and religion; and their languages kept pace with the multiplication of their emotions and ideas. England could long ago boast of a BACON, a SHAKSPEARE, a MILTON, a NEWTON, and a LOCKE; and she is now able to exhibit an additional list of names of men who have embodied in her language thoughts and inventions so profound, admirable, and useful, that the philosophy, the science, and the arts of the ancients would sink into comparative insignificance before them.

"This change of circumstances has clearly altered the relative value and importance of the Greek and Latin. There is now no *knowledge* relating to the physical and moral worlds contained in these languages, which does not exist, clearly expressed, in English; and there is no mode of feeling or of thought relating to the practical

purposes of life, that may not be as forcibly and elegantly clothed in our native tongue as in them. Human institutions and practices, however, often long survive the causes that gave them birth; and from five to seven precious years of our lives in youth are still dedicated to the study of the learned languages, as if all their original importance remained." . . . "Pupils in the schools have wasted in studying — or attempting to study — Greek and Latin, the only time which their occupations left at their command for obtaining information. They have been sent into the world absolutely ignorant of the vast store of moral and intellectual instruction presented by the works of the CREATOR." . . . "The CREATOR has constituted the external world in admirable adaptation to the human faculties, but Natural Science and accurate knowledge of things that exist, and their influence on human happiness, has not yet sufficiently reached our schools. The elementary principles of all the natural sciences, constitute the native food of intellect. . . . It is of greater importance to furnish sound principles for the future, than to load the memory with minute knowledge of the past."

He sums up the consequences of keeping boys chiefly at the languages, by saying, among other things, that "this course of study, being an outrage upon Nature, tedium, disgust, and suffering invade the mind"; that "nine out of ten drawl away the years of their allotted penance, and, within a brief space after its close, forget every syllable which they had learned with so much labor and pains," &c.

He farther states that,

"It is erroneous to say that Greek and Latin are indispensably necessary to enable one to understand his own language. This must be the case only where no adequate pains have been bestowed by teachers to convey fully the meaning of English expressions. All words are mere arbitrary sounds; and, in itself, a sound invented by an Englishman is as capable of being rendered intelligible by proper definition, as if first suggested by a Greek or Roman. A great proportion of the words which compose the English language are derived from the Saxon; yet few persons think a knowledge of that language necessary for an understanding of their native tongue. The grand requisites to the right use of speech are two — clear notions, and accurate definitions of the words used to express them. The *former* will be best attained by studying *things*, and the *latter* by a careful exposition of our mother-tongue, by teachers who know

scientifically both the thing signified and the genius of the language. *The derivation of words is not always an index to their true signification; artery* means literally air-vessels, yet it circulates blood; *physiology* is derived from the Greek words signifying nature and discourse, yet in English it is used to designate only the doctrine of animal and vegetable functions. In teaching etymology, therefore, we must often guard the student against the errors into which it would lead him; so that the difficulty of his understanding his native tongue, is to that extent increased by his studies in the Greek and Latin."

He recommends as a substitute, teaching the English language so as to unfold its structure, idiom, and power, by those possessing extensive information and proper talents; and it is only after English has been taught in a way best adapted to the human understanding (and, he might have added, for a sufficient length of time), without success, that the conclusion ought to be drawn, that it can not be understood sufficiently for all useful and ornamental purposes, without a previous knowledge of Greek and Latin.

The fact is recognized that as new truths in science are discovered, new terms are necessary to express them, and that the custom is to compound words mostly from the Greek, thus constantly introducing new Greek words, or words from Greek roots, into our language. It is often impossible to find Greek or Latin words, or roots, which express precisely, or even very nearly, the idea intended to be conveyed, each word having a technical meaning requiring a special definition. These are given in explanatory dictionaries, which must ever be referred to, even by the best Greek and Latin scholars, and their explanations can be understood by the English scholar, so that, in the language of Mr. COMBE, "no one is compelled to study ancient tongues for six or seven years, for the sake of understanding a few hundreds of scientific terms."

It is urged in favor of studying the ancient classics, that by a knowledge of several languages alone can one attain a skillful use of his own. In answer to this, there

need only be stated, what is admitted by all, that the ancient Greeks attained to the most exquisite delicacy and dexterity in the use of their language, yet it is well known they studied no other than their own. In learning the Greek at the present day, as well as anciently, the student must connect the thing signified directly with the expression, as there are no derivative words — no etymology — to render it intelligible. If Greek can be comprehended thus, why can not English?

That, as a matter of fact, men have attained to the highest skill in the use of the English language without studying any other, we need only refer to such specimens as SHAKSPEARE, COBBETT, BURNS, and a host of female writers; while others, like BENTLEY, might be found, whose extended classical knowledge did not enable them to write in their native tongue with tolerable correctness, gracefulness, and ease. Lord BYRON is said by his friend Mr. MOORE to have been a miserable Greek and Latin scholar while at school, hating his tasks, and avoiding them when he could; and that he acquired his wonderful style by extensive miscellaneous reading in his native tongue.

There are not wanting those who agree with Dr. SPURZHEIM when he says, "I do not find that the English style is improved by learning Greek. Literal translations, the common mode practiced by students, it is known, are miserably bad. Hence those who do not make a peculiar study of their own language, will not improve in it by learning, in this manner, Greek and Latin."

Among our own countrymen, — as if to rebuke the assumption that a knowledge of the ancient languages is essential to the highest development and the greatest usefulness we find that the men who stand preeminently above others — WASHINGTON in patriotism and statesmanship, FRANKLIN in science and diplomacy, and HENRY in stirring oratory—so far from owing any of their success to the study

of these languages, were nearly, if not entirely, unacquainted with them both.

Driven from all grounds of real necessity or direct practical utility, the advocates of the predominance of the ancient languages in systems of education cling to the opinion that their study gives to young men a refinement of mind, a high-toned dignity, a noble bearing, and a general polish which nothing else will do. That many graces of this kind are communicated in a long course of study, and in the society which usually surrounds institutions of classical learning, is very true; but is it equally obvious that these graces are conveyed by these particular studies? Are not such qualities communicated in a large degree by associating with the refined, and by reading works of polite literature, outside of the regular course? Would not, indeed, an extended course of study in natural history, in political, social, and moral philosophy, and in the English language and literature — the careful analysis of the best models in the latter, etc., do even more, in elevating and refining? Are the ancient works remarkable for the delicacy of their subjects, the unselfishness of their heroes, the purity of their men of rank and fashion, the virtue of their women, or even the decency of their gods? Is not real refinement based upon pure and generous affections, just and upright sentiments, a kindly regard for man, and a lively appreciation of excellence, beauty, and grace, wherever found? Do not those writings of the ancients that are studied breathe a spirit of contempt for the people, and an indifference to mankind as a progressive race? Do they contain any of the important principles of practical Christianity, enlightened policy, or true philanthropy? If not, do the study of these works themselves convey that refinement which is needed for the young? A writer in the editorial pages of a late No. of *Harpers Monthly* inquires, "How many graduates of Yale or Harvard last year

can write tolerable Latin, or translate tolerable Greek verses, this year? How many retain more than the Greek alphabet, or the meaning of a few Latin phrases, after ten years? Is not the best result of the four years' course, as a general rule, that which was done by the students from preference, and outside the college requirements? Experience shouts the reply." He concludes that if a young man "of no particular tastes, is to pass four years in study, he had better pass it in becoming familiar with English, than Greek or Latin literature," for any purpose, either of utility or refinement.

But there are young men who should doubtless study Greek and Latin. A knowledge of these languages the world should by no means lose. Extended philological studies have their uses. They afford much pleasure to those who have a taste and a genius for them, and lead to a more extended and accurate knowledge of man — his thoughts and his deeds. There are indeed many arguments in favor of such pursuits; not for the many, but for a few, whose tastes, ambition, and inclinations, lead them in that direction, and who have the time and the energy to bestow. It is alleged by the friends of classical learning, and with much truth, that the difficulties in mastering these languages, particularly the Greek, afford an admirable means of training the intellectual faculties to contend with obstacles. There are doubtless minds that would be benefited by such a struggle—more perhaps than by any other variety of labor; but the mass of men engaged in liberal studies, will find sufficient difficulties in mastering the natural sciences, the various questions in political and social economy, in mental and moral philosophy, in becoming familiar with the genius and powers of their own language, and in the practical exercise of the art of composition under the eye of an acute critic. It can not be questioned that the study of nature calls into activity a greater *amount* of *thought* than

does the study of languages, though the latter may exercise some of the faculties in a more intense degree. We repeat, that we raise no objections to the pursuits of linguists; on the contrary, we would afford every encouragement to those having the inclination and the time, to study as many languages as the world was cleft into at the Tower of Babel; we only contend, in the language of the philosophical SPURZHEIM, "that a knowledge of Greek and Latin ought not to be required as indispensable from every student," believing with him, that for, at least, *many persons*, their study leads to the loss of "much time and labor, which might be more usefully employed."

In favor of these general views, the testimony of many of the greatest masters in English literature might here be quoted—a few specimens from English writers must suffice.

COWLEY says:

> "It is deplorable to consider the loss which children make of their time at most schools, employing, or rather casting away, six or seven years in the learning of words only, and that very imperfectly."

LOCKE asks:

> "Would not a Chinese, who took notice of our way of breeding, be apt to imagine that all our young gentlemen were designed to be teachers and professors of the dead languages of foreign countries, and not to be men of business in their own?"

Dr. ADAM SMITH, in his *Wealth of Nations*, observes:

> "It seldom happens that a man, in any part of his life, derives any conveniency or advantage from some of the most laborious and troublesome parts of his education."

Sir FRANCIS HEAD, late Governor-General of Canada, whose forcible and benevolent writings, a few years ago, took the cruel check-reins off the horses of England,

speaking of the sons of the most estimable people of that country, says:

"After certain preparations they are sent to those slaughter-houses of the understanding — our public schools, where, weaned from the charms of the living world, they are nailed to the study of two dead languages — like galley-slaves they are chained to these oars, and actually flogged if they neglect to labor. Instead of imbibing knowledge suited to their youthful age, they are made to learn the names of ACTÆON's hounds — to study the life of ALEXANDER's horse — to know the fate of ALCIBIADES' dog — and other tales and rubbish of this description. The poor boy at last "gets," as it is termed, "into Ovid," where he is made to study everything which human ingenuity could invent to sully, degrade, and ruin the mind of a young person. The ALMIGHTY CREATOR of the Universe is caricatured by a set of grotesque personages, termed gods and goddesses, so grossly sensual, so inordinately licentious, that were they to-day to appear in London, before sunset, they would probably be, every one of them, where they ought to be — at the treadmill."

Speaking of these young men leaving the Universities, he says:

"Let any one weigh what they have *not* learnt against what they have, and he will find that the difference is exactly that which exists between creation itself and a satchel of musty books. I own that they are skillfully conversant in the latter; I own they have even deserved prizes for having made verses in imitation of SAPPHO — odes in imitation of HORACE — epigrams after the model of the Anthologia, as well as after the mode of MARTIAL; but what has the University taught them of the former? Has it given them the power of conversing with the peasant of any one nation in Europe? Has it explained to them one of the wonderful works of Creation? Has it taught them a single invention of art? Has it explained to them the principle of a common pump? Has it given them any agricultural or commercial knowledge, any acquaintance with mankind, or with business of any sort; and lastly has it made them modestly sensible of their own ignorance? — Or has it not done all in its power to make them feel not only perfectly satisfied with their own acquirements, but contempt for those whose minds are only filled with plain, useful knowledge? . . . This education has for centuries been coupled with the most flattering adjectives; — it is termed polite — elegant — accomplished — good — complete — excellent — regular — classical, etc. etc."

This language respecting the Colleges of England, we are rejoiced in saying, does not apply to the better class of institutions of our own country. A great reform is in progress among us. At Harvard, and other Eastern Colleges, a large amount of scientific knowledge is imparted. In the enlightened and liberal policy of the University of Michigan a *Scientific Course* has been established, equal to the Classical in time, in dignity, in importance, and in the mental cultivation given; and, when properly developed, will be *superior* in the amount of real knowledge conferred, in which Latin and Greek are not required, and, as a substitute for which a more thorough study of our own language and literature, of the modern European tongues, the Mathematics, Philosophy, and especially the Natural Sciences, is contemplated. The Board of Regents have considered (and in this we recognize the indisputable progress of reason) that the time has come when the old absurdity, that men could not be regarded as liberally educated without a knowledge of the dead languages, should receive a check and a rebuke; and we understand their policy to be to so develop the Scientific Course as to demonstrate to the world that, as profound scholars, as polished gentlemen, and at least as sensible and useful citizens, can be produced by studying our own copious language and literature, as the Greek and Roman—by studying modern thought, as ancient—Christian, as heathen—the truths of God, as the fictions of men.

We have not space to discuss at any length the question, Whether English Grammar can be well learned and understood without the Latin? On this point, one of the teachers of our State Normal School, whose reputation in his profession is high, has written:

"It is time that the doctrine, old as the hills, and false as it is old, contained in these words, 'The best way to learn English Grammar is to begin with the Latin,' were fully and completely ex-

ploded, as it will be, when we, as teachers, learn to have less reverence for grammatical precedents, and begin to be awake, and do our own thinking."

But are there not special reasons why medical men should have a knowledge of the Ancient Languages? Can the technical terms of the sciences be understood without this knowledge? Is there not a professional shibboleth which demands a familiarity, at least, with Latin? A very brief consideration of these questions is all that our space, and the length of this article, will permit.

We do not deny that, considering the number of words used in Medical Science taken from the Greek and Latin, and particularly considering the custom of many medical writers of presenting their prescriptions in Latin, and indulging in classical quotations, that some knowledge of these languages is convenient and desirable. As such customs are more common among British writers, where almost every one who has been to school at all has been drilled in the classics, a knowledge of the Latin to the British physician and druggist is much more important than with us, where, druggists being not generally Latin scholars, prescriptions are more commonly written in English, and where directions for taking the medicines, almost invariably, are given in the mother tongue. A knowledge of Latin, so far as is necessary to read prescriptions, however, may be very superficial, and can be speedily acquired. The Latin names of the different medicines, and the few words indicating their preparation, can be very readily learned; and those who have a knowledge of Classical Latin are not relieved from the necessity of referring to glossaries, and committing to memory these signs, words, and phrases, like others. To spend several years in studying Latin for this purpose only, would be a mere waste of time. No one having the slightest acquaintance with the subject, will question this assertion.

As to the importance of a knowledge of the languages for the purpose of understanding scientific and technical terms, sufficient, perhaps, has been said in the quotations already given. It is well known that any amount of knowledge of Greek and Latin roots or combinations will not lead the student to an accurate knowledge of technical or scientific terms: on the contrary, such knowledge will often lead astray. There are no means of becoming acquainted with technical terms but by studying specific definitions, and becoming familiar with the things they represent. We repeat, that a knowledge of Classical Greek and Latin will not lead to a correct knowledge of the technical terms of Scientific Medicine; and, among others, for the very obvious reason, that the scientific objects and facts which these terms represent were entirely unknown to the ancients.

Classical scholars, and others, ignorant of the history and science of Medicine, often suppose that a knowledge of Greek and Latin is important and necessary to the physician, to enable him to become acquainted with works of the ancient writers on Medicine. In order that this matter may be understood in its proper light, it is necessary to state to those unacquainted with the subject, and to remind medical men, that *Scientific Medicine is modern*, and, whether important or not, that every thing written by ancient physicians, of any value, exists in accurate and elegant translations. To spend six or seven years of one's short life in studying Greek and Latin, when so much in science and art demands attention, merely for the purpose of being able to read, in the original, ancient medical authors, is a shameful waste of precious time. All Christians are expected to read the Old Testament Scriptures; but all are not, therefore, required to master the Hebrew language, in which they were originally written.

The preliminary education most important to the phy-

sician, is that which shall make him the best acquainted with the real things of the world around him. He should have a thorough knowledge of his own language, its genius and power—a respectable acquaintance with its literature, and with the art of composition. If he have time and opportunity to extend his knowledge of languages beyond his own, the French and German are to be preferred to the Greek and Latin, as so many important works on Medicine are constantly being produced in these languages; though the importance of the *mass* of physicians knowing these tongues is diminished by the fact, that all the most valuable works are speedily furnished to them in correct translations. He should have a proper training in mathematics and physics; in mental, moral, social, and political philosophy, somewhat special attention should be given to the art of reasoning; and he should be well instructed in the Natural Sciences. These studies, so nearly allied to his professional pursuits, will prepare him much better for their successful prosecution than any amount of classical learning, foreign as is the latter to the necessary subjects of his daily thoughts and acts.

Space will allow of a reference to but a single authority in our Profession, for confirmation of these views, but that authority is so high, sustained as it is by the preceding considerations and the principles of common sense, that perhaps nothing further will be required.

Prof. R. Christison, of Edinburgh, the author of a Dispensatory and various other important medical works, and who has recently been appointed a member of the *Council* under the new Medical Law of the Empire, having, in connection with Parliament, charge of Medical Education and Registration throughout the Kingdom, when examined before a Royal Commission to the University of Edinburgh, in which he was Professor, stated that when at school he was *dux* of the Greek class, and

in college gained prizes for his knowledge of the language, yet, from the time he began to study medicine, he abandoned it completely; finding so little practical use for it, he had so far dismissed it from his mind, though yet a comparatively young man, that he could not translate a single passage which might be placed before him. In a published letter he says:

"For direct professional purposes, it is of so little consequence, both in itself and likewise as compared with modern languages and the exact sciences, that, considering the great augmentation of the branches of proper medical study in these days, the pursuit of it as a compulsory measure for *medical students*, is a mere waste of time and labor. . . . *These sentiments coincide with those entertained by most qualified judges whom I have conversed with on the subject;* and I am most anxious that unprofessional men of common sense be not led away by the natural partiality of classical scholars for their favorite pursuit, or by the recollection, that, in *former times*, when medicine and the medical sciences were in small compass, and the student had therefore ample time for collateral studies, this was naturally enough considered a necessary branch of knowledge, because it was then one of the almost indispensable tests of a man of cultivated mind or a learned profession."

In these statements, Prof. CHRISTISON designated more particularly the Greek, but it will be readily seen that they equally apply to an extended study of the Latin. Many more scientific terms are compounded from the Greek than the Latin.

We hope those who have seen fit to cavil at the opinions which we expressed before the Board of Regents, and which have given rise to this discussion, are convinced that we do not stand alone in preferring living sciences to dead languages, and a knowledge of things to a knowledge of mere words, as a preparation for Medical Studies.

A. B. P.

Dr. Green, and his Traducers.

We publish in the original department of this No. a communication from the pen of a New York physician, giving a sketch of the discussion which occurred in the New York Academy of Medicine, concerning the death of Mr. WHITNEY, and the relation thereto of Dr. GREEN'S probang and tube. From it our readers will gather all the important facts in the case. The reporters of *New York Tribune* furnished that paper with an account of the *Academic* transactions, so full and graphic as to enable the professional reader to catch the spirit of the speakers, and learn the sympathies of the silent members. The *American Medical Gazette* also furnishes a fuller account of the discussion than our space will permit us to devote to merely personal matters.

There is, however, a standpoint from which the affair gains an importance which far transcends that of a strictly personal concern. That standpoint is in the domain of professional ethics. Truly, some of our Metropolitan brethren are occasionally engaged in dignified pursuits! They manifest, too, excellent judgment! For it is extremely dignified to attempt to extinguish a professional brother! and they take such certain methods to accomplish the end, that they compel us to honor their good judgment. (?) This we believe is the third time that members of the New York Profession have engaged in the *honorable and successful* (?) enterprize of blotting out Dr. GREEN. This last attempt has the merit of bold folly — senseless infatuation! Have our New York brethren yet determined satisfactorily to their own minds whether Dr. GREEN does really penetrate the larynx and trachea? We have a faint recollection of some Academic Committees upon this subject, some years since. We advise them to look upon *this* picture — then upon *that!* Really, old fogyism is a universal element in human nature, and it requires all the

rampant impetuosity of "Young American colts" to drive the dog from his position in the manger.

With regard to the merits of the present case, just two points are to be considered. Did Dr. GREEN'S probang cause the pharyngeal abscess? or, Did his injection of one drachm of nitrate of silver solution (15 grs. to the oz.) produce a slough, and the resulting cavity which involved both pluræ, and thus gave rise to emphysema? The answers to these two questions determine the whole matter, and there is no difficulty in giving a correct response to both. If the probang was in order, it could not have produced the abscess: if it was not in order, it *possibly* might have done so; but the *probabilities* are against the supposition. Is pharyngeal abscess so rare a disease as to induce the supposition of a *necessary*, or even *probable*, mechanical cause? Shame on the sophistry that seeks to establish such relations! With regard to the cavity in the lung, Dr. GREEN'S injection had no more influence in producing it than had the dog-star.

We have no particular friendship for, or interest in, Dr. GREEN. We respect him as the originator of an ingenious, useful, and bold method of treatment. He has, however, we think, ridden his hobby at a rapid gait; and his probangs and tubes have been upon many expeditions of doubtful utility. But in this disgraceful affair we certainly admire his dignified and manly conduct.

We await, with interest, the appearance of the next No. of the *Scalpel*. "Lay on," Bro. DIXON! Scarification is clearly indicated. G.

Slanderous Statement of the "Cincinnati Lancet and Observer."

In an editorial article in the March No. of the above journal, among much other personal abuse of less consequence, the following statement is made:

"Dr. P., although he appends the title of A. M. to his name, has no such title from any College or University; and the same, we believe, is true of Dr. SAGER."

As this is an accusation calculated to vitally affect our honor, we can not let it pass as we shall the rest of the abuse from the same source.

All we have to say at present is, that if the Editors—EDWARD B. STEVENS, M. D., and JOHN A. MURPHY, M. D., —do not retract the statement, and apologize for the same —giving the retraction as extended a circulation as the slander, it will be necessary to publish them to the Profession as Common Libellers and Defamers, besides considering such other means of justice and redress as may be necessary to restrain a vicious license of the Press.

A. B. P.

NEWS ITEMS.

August Wilhelm, a surgeon of Liverpool, England, was recently found guilty of murder, and sentenced to death, for causing the death of a female by an attempt to procure an abortion.——Two gentlemen of Baltimore have recently taken out a patent for converting a mixture of pearlash, powdered sal ammoniac, lobelia, oil of anise and caraway, alcohol, grass, rope, rum, cascarilla bark, opium, sumac, and stems or refuse of tobacco, into sheets for wrapping woolen goods, to prevent moths from eating them, lining for cases of the same, and wrappers for cigars or tobacco.——*Comptonia asplenifolia*, or Sweet Fern, has found a new use, aside from its medical one, which is the substitution by it of hemlock or other barks, for tanning leather.——An enterprising Californian has patented the use of hydrated alumina as a decolorizer and defector of saccharine liquid and vegetable juices, in the refining of sugar. The idea was that of a French savant, published last year.——The proportion of insane to the whole population of Scotland is 1 to every 390.——A tribe of aborigines has been found in Australia presenting the remarkable peculiarity of being entirely without hair, neither males or females having hair on their bodies, at any period of life.——A course of lectures on Chemistry, and its appliciation to Pharmacy, is now being delivered by Chas. T. Carney before the Massachusetts College of Pharmacy.——In the account of a people called Náh-pih-shen, near Manilla, parturient women are placed into a tub, into which water is poured, with the design of facilitating the accouchment.——There are five thousand practicing dentists in the United States, who consume over two million and a half dollars in gold foil and plate.——Hypophosphiteopathy is the term now applied to Dr. Churchill's hobby in treating consumption.

Pharmaceutical Department.

Chloroform.

The yearly increasing use of this valuable anæsthetic renders any suggestions in regard to improvements in the manipulatory details connected with the processes of its manufacture of value to its producers; and especially does the discovery of practical and simple tests, whereby the purity and availability of any sample may be ascertained by the consumer, deserve the approbation of professional men.

Dr. E. R. Squibb, in a paper read before the New York Academy of Medicine, in 1857, called attention to the necessity of Chloroform being put into market holding in solution a small percentage of alcohol, to prevent its being decomposed by light and other agencies. He says in that paper, that

The writer is convinced by observations upon Chloroform made by himself, that a tendency to decomposition becomes very strong when Chloroform has a purity, indicated by a density above 1·497, and that decomposition will be almost inevitable when the density is above 1·498, and he believes that this circumstance explains the fact that chloroform which has been purified with concentrated sulphuric acid alone, rarely keeps well, although known then to be almost chemically pure. The acid abstracts not only the impurities as such, but also the last portions of water and alcohol. Then when a single point of decomposition is determined by light or other incitant to chemical reaction, that reaction proceeds as in a process of fermentation until the whole is decomposed. The small proportion of alcohol may prevent this in many ways, but probably by closing the circuit of the composition of the compound as the circuit of the magnet is closed by its keeper, or as the decomposing forces of some acids are controlled by combination. Thus, if the balance of affinities is disturbed in the direction of decomposition, the disturbing forces being equally efficient for recomposition when material is present in the proper condition — alcohol, the original matrix being present, the chain is again closed and complete.

We, however, wish to call the attention of our medical friends more particulary to Dr. Squibb's tests for the purity of Chloroform — that is, in regard to its freedom from foreign products, complicated and subtle, which are formed with it in the reactions occurring in the process of its manufacture, and which more or less are apt to contaminate all commercial Chloroform, and are only removed by the careful rectification of the crude product; for which rectification Dr. Squibb gives a process. The tests are as follows:

When equal volumes of colorless, concentrated sulphuric acid (good commercial acid answers every purpose) and chloroform are shaken together in a glass-stoppered vial, and then allowed to separate, there should be no color imparted to either liquid, or but a faint yellowish tinge to the acid after twelve hours' standing; and there should be no sensible warmth developed at the time of mixing.

A drachm or two of Chloroform spontaneously evaporated from bibulous paper, should give during the evaporation of the last portions, but a faint, momentary, foreign, aromatic odor, and leave the paper odorless. Half a fluid ounce or more, spontaneously evaporated from a breakfast plate, by causing it to flow back and forth, leaves all the impurities to pass off with the last portions, when, by the odor, their character and quantity may be estimated to a practical degree of accuracy. There should be no disagreeable, empyreumatic, mawkish or chlorine-like odor whatever, and only a slight degree of transient, aromatic odor, free from pungency, and the plate should be left with an odorless, tasteless residue of condensed moisture only, upon its surface.

. . . . . .

The odor test is quite as valuable, and more simple, since under proper management it detects, in a minute or two, all hurtful impurities (though not the diluents), as unerringly as is possible. The application upon the hand, as proposed by Dr. GREGORY, is much less delicate than when the evaporation takes place from bibulous paper, or a clean glass or porcelain surface. A piece of ordinary white wrapping paper, such as is to be found upon the table of every physician and pharmaceutist, is all that is required. Enough Chloroform to wet the centre of a piece five or six inches in diameter, say a drachm, is poured upon the paper, and the paper is then held until it acquires a greasy rather than a wet appearance. Up to that time the odor of Chloroform alone is noticeable, but afterwards the impurities begin to evaporate in the order of their volatility. As most of these impurities are very volatile in all tolerably good specimens, at least when held in solution by the Chloroform, it is necessary to observe closely, in order to detect some of them when present in minute proportion. Two or three different odors may often be detected momentarily, and in very faint degree, in good Chloroform, but in all good Chloroform the odor is very slight and not disagreeable, and is entirely gone by the time the paper is quite dry again, so that it is left odorless.

They are perhaps best observed by holding the paper over the nose and mouth, and inspiring with the mouth a little open. With a larger quantity of Chloroform on a breakfast plate, as in testing ether fortior, the test becomes far more critical, so that by this means a medicinally pure Chloroform will yield an amount of odor, though not of the more hurtful, disagreeable kind, which if found by the paper test, would cause the sample to be rejected. To a practiced manipulator, with this test, the amount of alcohol even, is very usefully estimated.

A new test for the purity of Chloroform has been proposed by M. L. ROUSSIN, in the *Journal de Chemie Médicale*, founded upon the solubility of the nitro-sulphurets of iron in water and alcohol, but entire insolubility in pure Chloroform. To the former they communicate a dark red color; and this color-test will detect one part of alcohol or water in one thousand of Chloroform. As a test of practical value, it is useless when, for medicinal purposes, it is assumed that a minute proportion of alcohol in Chloroform is beneficial rather than detrimental to it.

F. S.