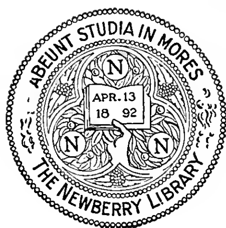
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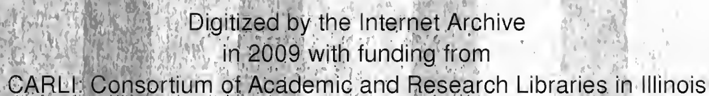
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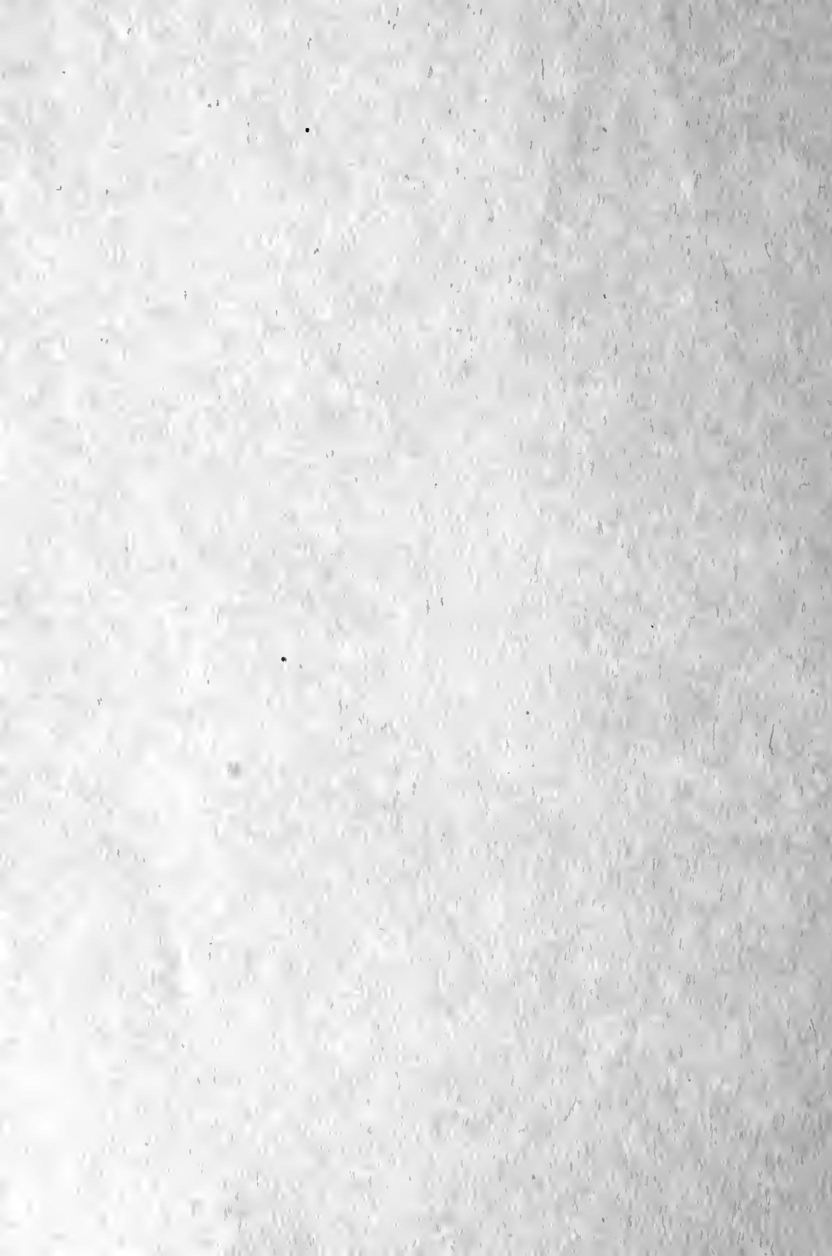

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DEVOTED TO THE RELIGION OF SCIENCE.

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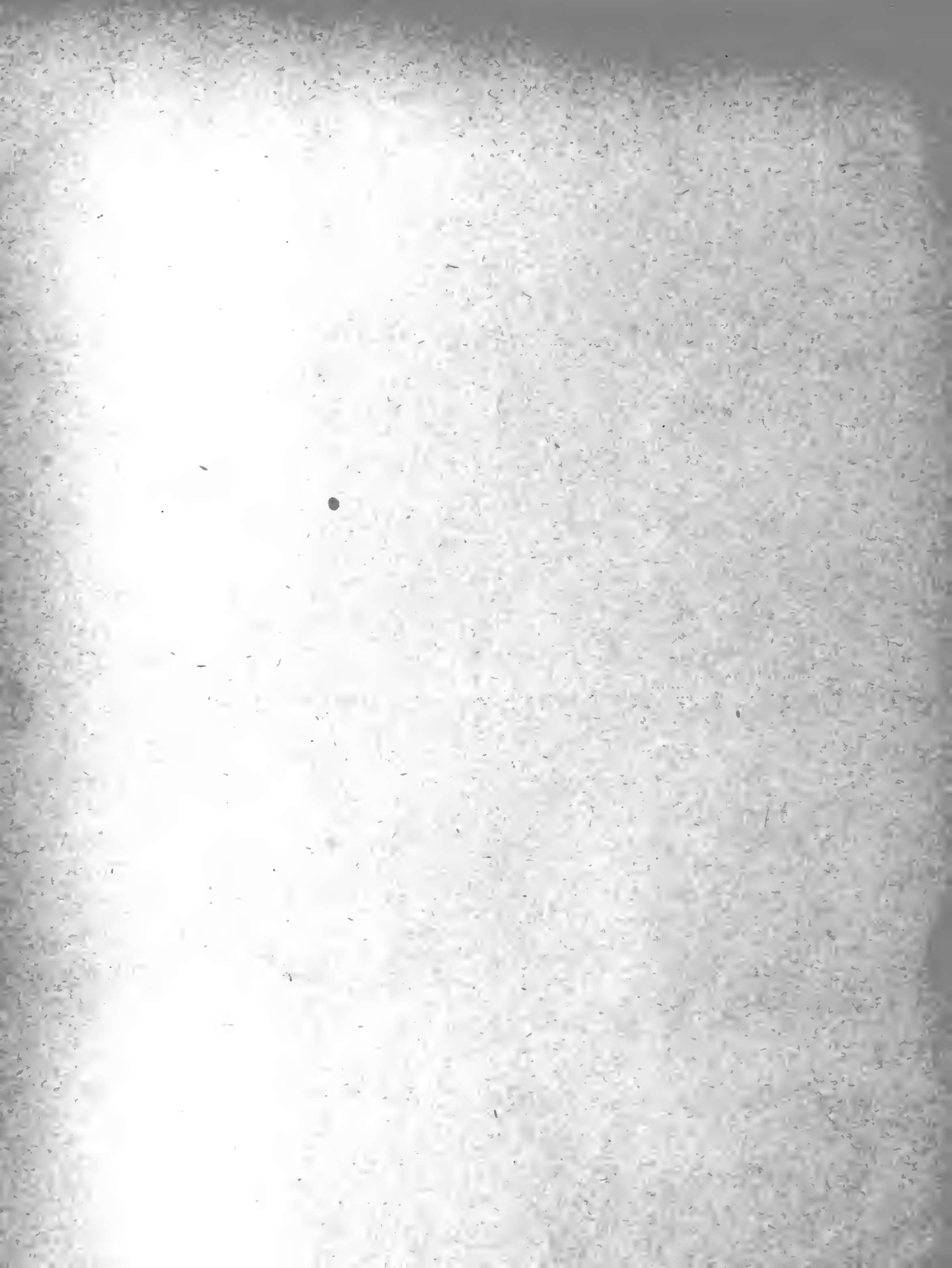

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AN APOSTLE OF SCIENCE.

BY DR. FELIX L. OSWALD.

If the worship of Truth for her own sake can be called a form of religious enthusiasm, the nineteenth century may be said to have already solved the problem of reconciling religion and science. Humboldt, Goethe, Renan, and Darwin ventured and labored for the cause of knowledge as much as any missionary for the cause of faith, but it may be questioned if since the days of Voltaire any individual thinker devoted himself more successfully to the task of carrying the torch of truth into dark places than the self-made scholar and independent investigator John Tyndall.

Like his countryman Bacon, Tyndall was an apostle of popular science. His love of truth made research its own reward in a sense that enabled him to ignore the opposition of envy and bigotry, and he possessed in an almost unparalleled degree the gift of interesting the masses in the results of his inquiries. It has often been said that Robert Ingersoll owes his popularity to his rhetorical gifts, rather than to the attractiveness of his doctrine; but let an Ingersoll or a Moody announce a lecture on such topics as "Calorescence"; "The Transmission of Heat through Gaseous Bodies"; or on "Sounding and Sensitive Flames," and see if they can still keep a mixed audience spellbound for hours together.

Tyndall has repeatedly wrought that miracle. At the Royal Institute and the School of Mines his lectures on the most abstruse subjects were attended by crowds of workingmen, and deserved to be studied by teachers and orators from a subjective point of view, since to an intelligent observer an hour's attendance revealed the secret of his success. With an unerring instinct he gained the attention of his audience by selecting the most generally-interesting points of his theme, and maintained that interest by a discursive chat in which wit, humor, and amusing anecdotes were strangely blended with philosophical revelations and sarcastic sallies against non-philosophical dogmas. He could play on an apparently one-sided topic like a virtuoso on a one-stringed harp, and in the lecture-hall his motto of "Low Fare and High Sentiments" was supplemented by the maxim of acute thought and blunt speech. He detested scholastic pedantry as he hated obscurantism in all its forms, and could make the language of the Swiss peasants express his theories on complex geological problems.

Professor Dryasdust: "The metamorphic strata of this defile are specially fit to illustrate the erosive action of descending glaciers and sub-glacial waters, the transverse section being characteristic all along the southwestern boundaries of the chasm,"—and so on, till even his educated hearers wish him at the bottom of that chasm, and themselves back to the tavern of Pfeffer's.

Professor Tyndall: "Hasn't this river washed out a wonderful kettle! Wouldn't a railroader prefer to tackle a job of that kind by day's wages, rather than by contract—unless he could get hold of that consecrated wheelbarrow at the Rigi Chapel your friend was telling us about."

Farmer: "Yes, and with a receiver to control the paymaster of the Rigi tramway. For my part I shouldn't like the contract. Wonder how many years it took the river to finish the job?"

Tyndall (feeling his way): "I would give something to know. Anyhow it seems clear that the water did it, and nobody else; or do you think it possible that every river in the country found a ready-made gap on its way to the sea?"

That Socratic method of interrogation could in case of need give way to a quick-fire of irresistible arguments, or a rocket-swarm of humorous sallies that reconciled the most unscientific hearer to the weightiness of the topic.

But the consciousness of his conversational abilities did not prevent Tyndall from pursuing his philosophical inquiries into the depths of solitude. During the two years following his return from Berlin he often passed weeks in his London laboratory, stinting himself in meat to preserve his clearness of mind, and in favorite intellectual diversions that might interfere with the concentrations of his thoughts. On such occasions he locked his doors against gossiping idlers, and thus avoided the alternative recommended by Ernest Renan, who informs us that he had often to "make himself tedious on purpose," to shorten the visits of troublesome friends.

In the Alps, too, Tyndall frequently dispensed with

the society of his countrymen, in order to follow a train of geological speculations, with the echoes and the whispering winds for his only respondents, and on one memorable occasion he gave a personal friend and even his guides the slip and picked his way alone across the crevasses of the Görner Glacier to the slopes of the Matterhorn and back to the hostelry of Breuil, a twenty-mile trip over ground where the survival of the traveller constantly depended on the choice of the trail, but where the risk of the vast precipices seemed for once preferable to the deadly bother of small-talk. "There are moods," says the perpetrator of that escapade, "when the mother is glad to get rid of her offspring, the wife of her husband, the lover of his mistress, and when it is not well to keep them together. And so at certain intervals, it may be good for the soul to feel the full influence of that 'society where none intrudes'; the peaks wear a grander aspect, the sun shines with a more inspiring fire, the blue of heaven is more deep and awful and the hard heart of man is often made as tender as a child's."

Tyndall's analytical talents were now and then applied to the task of self-study, and he may have asked himself if his fondness for communion with Nature, had not an ultra-scientific significance, like the homesickness of an exiled Highlander. "I have sometimes," he says, "tried to trace the genesis of my interest in fine scenery. It cannot be wholly due to my own early associations, for as a boy I loved nature, and hence, to account for that love, I must fall back upon something earlier than my own birth. The forgotten association of a far-gone ancestry are probably the most potent elements of the feeling. There was a time when the pleasurable activities of our race were among the mountains, woods, and waters, and I infer that the hereditary transmissions of that time must have come with considerable force to me."

As a consequence, Tyndall had become so much at home in the Alps that, in the words of one of his Swiss friends, "he could have fallen back on the chance of being able to make a tolerable living in the rôle of an Alpine guide, if the British bigots should have contrived to expatriate him for his sins of heresy." He ascended the Jungfrau twice, was the first foreigner to reach the pinnacle of the Weisshorn and all but forestalled Sir Charles Whymper in his triumphant attack on the cloud-castle of the Matterhorn. Johann Bennen, the explorer of the Lepontine Alps pronounced him the only Englishman able to *climb* a first-class peak to the very top and long after the rest of his countrymen are merely able to stagger (*wanken*) along," and Joseph Jenni, the veteran of the Pontresina guides, once went fifty English miles out of his way to compete for the honor of accompanying the famous Briton on a specially perilous glacier expedition. Their mutual friend, Bennen, had been killed by an avalanche a few months before, and Professor Tyndall came very near sharing the fate of his old companion, but in the very crisis of the terrible *glisade* had sufficient command of his mathematical faculties to calculate the chance of neutralising the momentum of his sliding travelling companions by a well-timed sideward pull, but to recognise the difficulty of checking the impetus of their descent, *plus* that of the sliding snow!

During a forced march across a gap of the Aegisch horn, he found time to stop and shake with laughing at his guide's anecdote of an honest Tyrolese who had been informed by his father-confessor that the hope of attaining the kingdom of heaven could not be reconciled with a passion for the fair sex. "Herr Pfarrer, es *muss* gehn," replied the Tyrolese.

Tyndall did not class his memoirs of those diversions under the head of wasted time, but held that a clear brain and even a clean bill of morals, were products of physical health as directly as health itself is a product of fresh air and exercise. "Take what hypothesis you will," he says, "consider matter as an instrument through which the insulated mind exercises its powers, or consider both as so inextricably mixed that they stand or fall together, from both points of view the care of the body is equally important. The morality of clean blood ought to be one of the first lessons taught us by our pastors and masters. The physical is the substratum of the spiritual, and this fact ought to give the food we eat and the air we breathe a transcendental significance. In recommending this proper care of our physical organism," he adds, "it will not be supposed that I mean the stuffing or pampering of the body. The shortening of the supplies or a good monkish fast at intervals is often the best discipline for the body."

That discipline enabled him to preserve his health under circumstances of peculiar difficulty: A man of naturally feeble lungs and sensitive digestive organs obliged to breathe the tainted atmosphere of crowded lecture-halls, and exposed to the dietetic abominations of South European taverns and English railway-restaurants.

Lung microbes could not always be parried, but Tyndall had an instinctive dread of strong stimulants, and contrived to utilise even the leisure of the sickroom in a way that enabled him to turn his head into a cyclopædia of secular science. He was an accomplished naturalist, next to Davy perhaps the foremost chemist of his native land, an acknowledged authority in astronomy, biology, physiology, and general physics, and in addition to his technical and geographical studies found time to master a number of foreign languages. His family traced its origin to the Saxon immigrants of Ireland, and there was an English free-

thinker Tyndall (or Tindall) in the seventeenth century, still the versatile philosopher's temper now and then seemed to indicate an admixture of Celtic blood, and it is perhaps a suggestive fact that he spoke French with a much more facile accent than German, though he passed several years in Marburg and Berlin, and made the German-Swiss cantons his favorite summer head-quarters. When I first met him in Hermance near Geneva in the winter of 1869, he pronounced the word *gütig* alternately like *geetik* and *gootik*, and seemed to labor under the delusion that *all* foreign words of the German language have to be accentuated on the last syllable, while he betrayed a curious, natural talent for imitating the patois of the French-Swiss peasant children. But his lexicographical mastery of that mispronounced *Hochdeutsch* was almost incredible, even in consideration of his sojourn at the intellectual metropolis of Germany. He used synonyms with a subtle appreciation of their etymology, and had collected data on the propriety of new-coined words and such rare archaisms as *Recke*, a heavy-weight athlete, and *ungeheuer*, in the sense of uncanny. "*Alle Eulen des Gedankens* are roosting in his head," I heard him once say in one of his bilingual *bon-mots* for the benefit of a limited number of bystanders; and on a garden-bench of Hermance (where he was nursing his sprained foot) he once handed me a newspaper with a red query-mark opposite a quotation from another German poet:

> "Nun eilet aus des Lebens wildem Lauf
> Mein grosser Schatten zu des Grabes Frieden."

—"*Schatten?* what does that spitlicker mean?—*grosse Schattenseiten*, I suppose,"—the passage having been intended as an apotheosis of an individual whose crown had been his chief claim to distinction. The *Unterthänigkeit*—constitutional servility of a certain class of German contemporaries was a subject of his constant banter, and he could chuckle for minutes together at the mere mention of a passage from a biography of Frederick the Great, where the author describes an official chronicler recording certain court-ceremonies with "trembling exactness." The democratic irreverence of Yankee travellers amused him all the more since he had reasons to predict the decadence of that spirit of sturdy independence. "North America," he said, "is drifting into a sort of cosmopolitism that endeavors to efface the most distinctive characteristics of the freedom-loving old pioneers, and I am afraid you will soon have to go pretty far West to find such champions of self-help as Jackson and Boone."

Withal, he often quizzed the unscrupulous land-greed of those primitive patriots. "What's the matter with your Spanish Americans," he once asked me in discussing the chronic revolutions of the Mexican Republic, "are they really unable to hit a medium between anarchy and despotism, or are they trying to turn their country into a desert to lessen the temptation of their enterprising neighbors to cross the border again?"

Aside from that penchant for banter, the practical sagacity of his remarks was often striking, and, I cannot help thinking, had something to do with the fact that, like Thomas Carlyle, he was a poor man's son and was schooled in the stern realism of life before he applied his mind to speculative problems. "Can the effect of prejudice be illustrated by a more glaring instance," he said, "than the fact that Heinrich Heine's works are not by this time found in every library of the civilised universe! What an incomparable series of intellectual pyrotechnics—rocket after rocket blending its sparks with the very stars and paling the brightest sparkle of De Staël and Voltaire! Leland's translation is almost an equal marvel, and they can soar into sublime pathos, too, but, as Byron says, they are guilty of the never-pardoned offence of opposing tithes. As an orthodox court-poet of . . . . he would have achieved fortune and statues, but the trouble is that the Muses decline to answer an invocation on such topics."

"A locomotive," said he in a conversation with Mons. Boissonnet, "is really a highly complex piece of mechanism, so much so, as to account for the late date of its invention, but how is it that the simple idea of a horse-car railway did not occur to the practical Romans? And why did the shrewd First Consul not offer a premium that could hardly have failed to lead to the construction of iron-clads, a couple of years before Trafalgar? Any floating tin wash-basin ought to have suggested the possibility of an armor-frigate, and the necessity of anti-commercial measures might have been obviated."

"That Rhadamanthus of atheism, the editor of the * * has impeached Napoleon for his death-bed recantations, but he should not be so hard on a man in such circumstances," said he on another occasion. "His grenadiers were gone, and he probably saw no other way to spite the British heretics."

In proposing his famous prayer-test, Tyndall himself possibly intended only a demonstration of that sort and greatly regretted the consequent controversies, partly from an aversion to that sort of notoriety, partly from a constitutional preference for the practical polemics of science. He was an agnostic, absolutely free from the dread of the unknown beyond, and with only a faint, though long lingering, faith in the possibility of a *post mortem* existence. When his friend Bennen perished on the Haut de Cry in the winter of 1864, Tyndall, Sir John Lubbock, Prof. Vaughan Hawkins, and a few others, contributed to the monument-fund of the famous guide, and delegated the supervision of the work to a Vallais curate, who,

as the chief promoter of the project informs us, made but a poor use of his trust. Still, a sort of memorial column was at last procured, and the supervisor forwarded his plan for a lengthy epitaph (in French, I think), concluding some biographical data with the information that the champion of so many mountain expeditions had departed to explore still grander heights. Tyndall rather liked the conceit, though not the manner of its expression, and contented himself with adding one touching line in the brave guide's own German: "Ich komme nicht wieder, Ihr Lieben." In the "interest of public morals" that supplement of the epitaph was, of course, suppressed, but Tyndall held with Arthur Schopenhauer, that philosophy should not be fettered down to an alliance with gnosticism, deism, nor even with the established system of ethics, but only with truth, and that if rightly understood, the uncompromising cultus of that truth, can never be unmoral. Though liberal to a fault, he was not fond of parading his philanthropy, and refuted the charge "agnostic egotism" in his own way, by donating the entire proceeds of his American lecturing tour —some thirteen thousand dollars, I think—to the promotion of scientific studies in the United States.

Tyndall's temperance and methods of outdoor exercise had endowed him with a reserve-fund of health that sustained him in the severe scientific labors of the last fifteen years, and there is no doubt that the fatal issue of his last illness was a direct result of his nurse's blunder in administering an enormous dose of chloral, instead of magnesia, and dismissing his medical friends upon the first symptom of improvement.

It is, indeed, probable enough that those mistakes robbed him and the world of twenty years of his life, but according to Tyndall's own principle, a teacher may depart contented, if he has lived long enough to see the seed of his doctrine bear fruit.

MENE TEKEL.

WINTER is always hard on the poor, but this year it seems to be severer than usual. Thousands of penniless tramps are overcrowding our great cities, and there are also many diligent laborers out of work, while charity institutions have been created to bring wholesale relief to the most needy. Yet it will be observed that those who deserve our sympathy in the highest degree receive but a small benefit of all this, and for the most part are left to rely upon their own reduced resources. The improvident vagabond is fed while the fate of the thrifty father of a family, who has mortgaged his home dearly bought with the savings of his wages, is scarcely considered in the general commiseration of wretched existences.

The reasons of our present calamity need not concern us now; to a great extent they are obvious enough. Fear of the depreciation of our money by substituting silver for gold caused a withdrawal of credit from banks and commercial enterprises and produced a sudden contraction in the business-world which almost amounted to a panic. Many factories have been shut down and almost all the others reduced their product. Although less has been produced during the last months than at other times, the market is overstocked so that our protective tariff has ceased to benefit even the few and our want of export opportunities is more felt than ever.

We have learned, or at least have had occasion to learn, a lesson; we ought to know now that the laws of economics cannot be transgressed with impunity. We Americans have been spoiled by Mother Nature and are under the impression that we are her favorites, that we can do many things which other nations cannot, and that famines or other calamities will never befall us. Thus we have adopted the habits of prodigals, which are often shocking to the frugal and economic European, and it is rarely that we are prepared for hard times.

The hard times prevailing now are not as yet so disastrous as the visitation under equal conditions in other countries might have proved; yet they are severe enough to be a *mene tekel* to us. Hard times may come again, and they will come again; some will come because we ourselves conjure them up through our national follies and political sins, others through complications in the natural forces of the world, be it by droughts, cyclones, or epidemics, and in the face of such possibilities it is our duty to be prepared for them.

We must first become aware of the fact that the typical American is extremely careless as to the possible rise of future emergencies, and frivolously wasteful of food, money, and all the other little items that go to make up the conditions of human life. And this is, upon the whole, as true of the employer as of the laborer, of the master as of the servant, of the rich as of the poor.

This is no secret to those who know the habits of European countries, especially of Germany; but very few of us think that we are wrong; on the contrary, there are many scoffers among us who ridicule foreigners on account of their stinginess and miserly habits; there are many who look with contempt upon the man who cuts down his expenses or denies himself luxuries in order to save a part of his wages for emergencies or times of need. We are a nation of spendthrifts and take pride in throwing away our money freely and indiscriminately. Such being the ambition of the great majority, many families live pretentiously who cannot afford it, and would rather dispense with wholesome food

than with jewelry and costly clothing or an expensive residence in the most fashionable part of the city. Forced to economise somewhere, they cut down their expenses in the wrong place.

Now it is true that America has been blessed with extraordinary prosperity, a prosperity which greatly exceeds that of most European countries, but it is also true that, sooner or later, hard times will come to us also. Anxious to preserve our natural advantages, we have erected a Chinese wall of protective duties about our frontier which so far has tended to make bread dear and money cheap. Like the stag in the fable who praises his horns, we are very proud that American money so valuable abroad has but little purchasing-power at home. How often do our smart innocents abroad boast that a dollar has no more value in the United States than a shilling in England.

We have artificially produced these conditions by fencing in a part of the world-market, and we imagine that our prosperity has been due to a sharp little trick of ours, while in fact it is due to the great resources of the country, which yield us their wealth in spite of these self-imposed fetters and burdens.

So long as we are prosperous we shall be able to stand the pressure of our heavy import duties, but in times of great emergencies they will make themselves felt. Nothing short of a famine in England opened the eyes of the people to the errors of a protective policy, and, considering the impervious tenacity of our protectionists, it is possible that we shall have to pass through the same ordeal, for our people refuse to learn from history and prefer the more impressive and more expensive way of learning by direct experience.

Being prosperous, we can sin against the natural laws that regulate economics and society for a long time, but it is certain that we cannot do so forever. We now exclude, as much as possible, foreign competition, and thus weaken our ability to compete with other countries. What shall we do when the time arrives in which competition becomes inevitable? Even now we see the symptoms of it. There are toys made in Germany and France, ingeniously contrived and economically made, which sell here for exactly double their value, and when we see them we exclaim, "Oh, how cheap!" With our conditions, and with cheap money our manufacturers cannot compete with Europeans. The benefit of protection is a two-edged sword. Its advantages turn out to be very disastrous. Our laborers are better paid, but the higher figures of money-values are very misleading. They would be better situated with less money of a greater purchasing power. We might better expect to fence in a part of the ocean, artificially to raise or lower in that part its level than to create forever exceptional conditions in one part of the mercantile world. The value of goods will after all seek its natural level and will thus produce a disturbance, which may prove dangerous to the welfare of the community. The fear of a cataclysm actually and naturally keeps many free-traders within the camp of protectionists. That is the curse of all errors, wrong-doings, and sins—their chains are lingering.

* * *

Whatever the future may have in store for us, one thing is certain, that our wastefulness will some day come into conflict with European economy. We enjoy great advantages, such as inventiveness and boldness of enterprise, but those Europeans who are well acquainted with our conditions imitate us and adopt our machinery. In the same way our industries must acquire the virtues of their competitors or succumb to their greater fitness in the struggle for existence. Uneconomical employés will have to be discharged or the whole plants will by and by pass into other hands. There is no hope for those who are unable to adapt themselves to the conditions of life; they must make way for others who can.

If Jeremiah were to appear among us, he would raise again his voice of warning. Hard times will come and how many among us have in their short-sighted vanity made themselves unable to face them. It is not possible to establish economic habits among large classes of the people as quickly as the tide of destruction may rush upon us; for visitations come sometimes like a whirlwind, and smite the proud more severely than the humble.

A passage in Prof. Lloyd Morgan's book, "Animal Life and Intelligence," in which he discusses the influence of good and hard and intermediate times on the production of varied forms of life, seems to me instructive. He shows that good times, in which by some favorable circumstance the area of life increases, will produce innumerable varieties; they create many new species, giving them a chance to prove their fitness for life, while hard times, in which a contraction of life-sustaining forces takes place, do the pruning; they cut down with ruthless cruelty those kinds which have not used their opportunities to their advantage. He says:

> "During the exhibitions at South Kensington there were good times for rats. But when the show was over, there followed times that were cruelly hard. The keenest competition for the scanty food arose, and the poor animals were forced to prey upon each other. 'Their cravings for food,' we read in *Nature*, 'culminated in a fierce onslaught on one another, which was evidenced by the piteous cries of those being devoured. The method of seizing their victims was to suddenly make a raid upon one weaker or smaller than themselves, and, after overpowering it by numbers, to tear it in pieces.' Elimination by competition, passing in this way into elimination by battle, would, during hard times, be increased. None but the best organised and best adapted could hope to escape."

In order to illustrate his law in the animal world, Prof. Lloyd Morgan calls the attention of his readers to the correspondent events in the history of man. He says:

> "The alternation of good times and hard times may be illustrated by an example taken from human life. The introduction of ostrich-farming in South Africa brought good times to farmers. Whereupon there followed divergence in two directions. Some devoted increased profits to improvements upon their farms, to irrigation works which could not before be afforded, and so forth. For others increased income meant increased expenditure and an easier, if not more luxurious, mode of life. Then came hard times. Others, in Africa and elsewhere, learnt the secret of ostrich-farming. Competition brought down profits, and elimination set in—of which variety need hardly be stated,"

Prof. Lloyd Morgan continues:

> "I believe that the alternation of good times and hard times, during secular changes of climate and alternate expansions and contractions of life-areas through geological upheavals and depression of the land, has been a factor of the very greatest importance in the evolution of varied and divergent forms of life, and in the elimination of intermediate forms between adaptive variations."

Speaking of the present era he says:

> "These are the good old-fashioned times of slow and steady conservative progress. They are, perhaps, well exemplified by the fauna of the Carboniferous period, and it is not at all improbable that we are ourselves living in such a quiet, conservative period."

Let us mind the lesson ere it be too late. The hard time of this winter is only a moderate admonition of worse possibilities. Bad laws made by demagogues, fools, or impostors, will bring misfortunes upon the people, and if the people do not learn to watch our legislators we shall have to pay dearly for it. But even if we cease to make blunders ourselves, the time of trials will come, for the balance of life is very unstable and often hinges upon trifles. We cannot continue for good in our wonted wastefulness, and it is unavoidable that those who refuse to learn the lesson shall be doomed in their future generations to hopeless perdition. How many, incredibly many, of our people are unable to live through periods of hardships, and we must shudder to think how terrible the pruning will be, should the metal of our nation be assayed in the crucible of some great visitation.

Those who have ears to hear, let them hear; those who have eyes to see, let them see; and those who have voices to speak and sufficient understanding to see that there is danger ahead, let them raise the cry of alarm, so that the day of judgment may not be too severe on us.

We proclaim no pessimism, for after all we are confident that this is the country in which a higher species of man is to be developed. Even the visitations, which, as we fear, will not be spared us, must contribute to mature the fruit of a nobler humanity.

So must it be, and may we all be found worthy to contribute our mite to the realisation of the noble destiny of our nation.

P. C.

A HYMN OF HOPE.

BY J. S. CLARKE.

Spirit of life and love,
Music and flowers!
Ruling the seas and streams,
Filling the night with dreams,
Smiling with sunny beams,
Weeping soft showers!

Sweet is thy sovereign grace,
Mighty thine art!
The soul-storm thou dost calm
With a celestial psalm,
And pour thy healing balm
On the torn heart!

What though pain's arrows pierce,
And health be slain?
Like the sunlight in the west
We shall gently sink to rest
On thy eternal breast
And conquer pain!

It is not life, but death,
When hope is gone;
Thou wilt mend all that mars
Our joy; for the bright stars
That shine through prison bars
Bid us hope on.

Sweet joys must burn and die,
Though the heart clings
To its fond heart's desire.
They shall rise from their dead fire,
Like the phœnix from its pyre,
With beating wings!

Spirit of boundless space
And endless time!
Thy works thou dost unroll
As from a magic scroll;
Like music to the soul
Is their sweet chime!

Mid the whirl of myriad wheels
Thy footsteps fall;
Treading the mystic loom
That weaves the web of doom,
And the flowers that bud and bloom
With hope for all!

Onward the soul-stream glides,
Sparkling with glee;
Foaming in many a lin
Of pain and sorrow and sin,
Until it flows within
The sunlit sea.

Spirit of raging wrath,
And flashing fire!
It is thine eye that reads
All our unholy deeds;
Whether it lags or speeds,
Sure is thine ire!

Dark is the shadow of sin
  Over the soul;
Darkly it flits and flees
Like the pirate o'er the seas;
Thou wilt heal the soul's disease,
  And make us whole!

Spirit of light and truth,
  Guide thou the way!
Fiercely the tempests blow;
Yet we must onward go,
Onward through weal and woe,
  Onward for aye!

CURRENT TOPICS.

The echoes of the Parliament of All Religions are just returning to us from the lands across the sea, and they are not so flattering to our own theologies as many zealous persons expected them to be. The echo from Japan comes in the shape of a report made at Yokohama by the Buddhist Bishops Bourin Yatsubuchi and Shaku Soyen, conspicuous delegates in the Parliament and eminent scholars in their own country. They are absolutely innocent of any intentional sarcasm; they were serious, and even solemn, so that the humor of the report is all the more delightful, because entirely unpremeditated and spontaneous. Dr. Barrows and the other Christian clergymen who convoked the Council of Chicago will be surprised to hear from the Right Rev. Shaku Soyen that "the Parliament was called because the Western nations have come to realise the weakness and the folly of Christianity." This is not encouraging, for the object of the Parliament was to exhibit Christianity in its own dominions, and to show for the conversion of the heathens, its wisdom, its justice, and its divine character. This, by object lessons and visible examples of social and political justice, of moral and spiritual excellence, and of material greatness too colossal for the missionaries to carry over in their ships. The purpose was defeated by the Parliament itself, when Christian bishops, presbyters, and priests confessed the failures of Christianity and justified the Japanese opinion that the Western nations had outgrown the Christian system, and were seeking for another, and a more beneficent, religion.

* * *

From personal observation the Buddhist bishops came to the opinion that Christianity in America is more a fashion than a faith, a formalism destitute of soul. Not only did they suppose they saw that for themselves, but they heard it over and over again from Christian preachers on the platform at Columbus Hall. The Japanese critics proclaimed nothing at Yokohama that they had not heard at Chicago; and they had good Christian warrant for it when they said, "Christianity is merely an adornment of society in America. It is deeply believed in by very few." The Christian speeches in the Parliament bore energetic testimony to that, but picturesque and ceremonial Christianity gets a nominal recognition and acceptance because it is really "in society," and valuable as religious embroidery for what the Buddhist bishops call "the adornment of society." Like incense from a golden censer it gives an odor of sanctity to pleasure, and after we have indulged in self-worship for a life-time, it blesses us with absolution for our sins. Because in matters of religion we profess what we do not believe, we have grown false in other things, and we do business with one another, each without any belief in his neighbor's faith in honesty. Happily, there are inside and outside the churches many exceptions to this rule of business; enough of them to break in some degree the force of heathen censure and strengthen that social confidence that gives character and dignity to life. I offer these mitigating circumstances for what they are worth, confessing at the same time that they are not a full defence to the heathen accusation.

* * *

Because the Christian religion hangs loosely upon the Americans, many Buddhists and Mohammedans erroneously think that America is good missionary ground for them. With a religious enthusiasm like that of Loyola, or Wesley, Bishop Shaku Soyen points to the Western nations eager for the light of Asia as it is in Buddha, and, referring to the Parliament, he said: "The meetings showed the great superiority of Buddhism over Christianity, and the mere fact of calling the meetings showed that the Americans and other Western peoples had lost their faith in Christianity and were ready to accept the teachings of our superior religion." So, likewise, the Mohammedans think that the decay of Christian faith makes an opportunity for them to propagate their "superior religion" among the Western peoples, and Mohammedan missionaries are now at work in England and America. They make a mistake in supposing that the Western peoples who have lost their faith in Christianity are anxious to believe in Buddha, Brahma, Mohammed, Baal, or some other deity or prophet, when the truth is they have lost faith in all religions that express themselves in forms of worship or claim supernatural inspiration. For centuries men have accepted sacred stories as a substitute for truth, and worship has usurped the place of duty. The rattle and the rumble of the printing-press are shaking the foundations of every superstition, of every error, and of every wrong. Men who have thought themselves out of the Christian faith will rarely think themselves into the faith of Buddha or Mohammed. There is no reason why a man who has been released from one prison should strive to enter another.

* * *

The Central Relief Association held a meeting last night and adopted plans by which to raise a million dollars for charitable purposes in Chicago; and we are informed that "A million dollars for charity, but not a penny for tramps, bummers, and impostors was the watchword of the Association." I fear this "watchword" will be a heavy handicap on the society, for it will require the critical ingenuity of expert metaphysical detectives to determine which of their hungry brothers is a "bummer" or a "tramp." According to the papers, Mr. Sterling, a very active member of the Association, a kindly man, of good intentions, but rather severe and rigid in his benevolence, said, "The class of loafers that had been sleeping in the City Hall had attracted entirely too much attention. What we need to do is to weed out the impostors, starve them out, and give assistance to those who deserve it." The language is rough, like the lot of the men described, and I do not believe that Mr. Sterling used the word "loafers" at all, but it expresses a prevalent estimate of the idle men, and about ninety per cent. of it is unjust. I inspected that shivering surplus in the corridors of the City Hall, perhaps not with strict impartiality, because of ancient fellowship, but as fairly as I could, and by the faces and the hands, and by the clothes, I knew that a large majority of it was made of men who are in the habit of earning their own living, but were just now out of work; and "out of luck" besides.

* * *

In the days of old, some years before the war, when a man's "nigger" was a bit of sacred property, it was my fortune to live in Virginia. I had drifted on a vagabond wave to the shores of that province, and as soon as I was cast upon the dry land, I found the white opinion to be unanimous that the "niggro," as they called him down there, was lazy and ungrateful. I searched with a mental telescope that multiplied by ten million diameters, to discover something that he ought to be grateful for, but I never found it; and when my telescope showed me that the "niggro" did all the work in Virginia that *was* done, and that he got nothing

for doing it, I wondered why he did not rest oftener, and—longer. Like the old Virginia planters, the Central Relief Association is very nearly unanimous in believing that the homeless wanderers who seek shelter on the stairs and in the passages of the City Hall, the gaunt effigies that besiege the soup-kitchens, are lazy and ungrateful. They had been tried by the street-cleaning test and found wanting.

* * *

In spite of all my efforts to resist the magnetic fascination, I am driven by an uncontrollable spirit to bring Oliver Twist into this discussion. The pathetic soup-story told by Mr. Sterling to the Central Relief Association made me dream all night about that historic meeting of the "Board" of charities, or whatever it was, and the gentleman in the white waistcoat who prophesied that Oliver would certainly be hung because he had shown inborn depravity enough to ask for more soup. "When our free soup-kitchens were opened," said Mr. Sterling, "we offered two good meals a day and free lodging to all who would work three hours a day on the streets." In my boyhood I knew a church, where the rear pews were ostentatiously placarded as "Free Seats," to which the poor could get admission by the payment of a penny. So, Mr. Sterling gives "free" soup to the poor who pay for it with work, at the rate of an hour's work for a meal. He is astonished that the terms are not gratefully accepted by the "unemployed," but are looked upon by them as a hard bargain, in which there is neither charity nor justice. They say that the two meals and the lodging do not cost the Association more than fifteen cents, while the work demanded for the charity is worth at least thirty cents if it is worth anything.

* * *

For several months the country has been in a state of panic, and industry has been depressed. Business is dull, money scarce, and many mechanics, clerks and laborers out of work are dependent upon charity. We have been told that this unhapppy condition was due to a paralysis of enterprise resulting from a fear that the duties on imports would be lowered, and that uncertainty as to the fate of the tariff was the cause of the distress. The excuse is gone, for the uncertainty is now at an end. Even if the Wilson bill should pass, the "tariff reform" contained in it is so conservative and mild that the protected interests themselves must laugh at their own affectation of alarm. To be sure, the explosions of oratory directed against the "robber tariff" in the campaign of 1892 were very loud, but much of the cannonading was merely "sound and fury signifying nothing." Some of the cannoneers themselves were careful to assure the listening crowds that they were firing blank cartridges. They resembled the soda-water merchant at the Fair one thirsty day when the demand for his liquor was so great that the noise made by the liberated corks was like the firing of guns. "Don't be a frightened, ladies and gentlemen," said he, "its only effervescense."

M. M. TRUMBULL.

CORRESPONDENCE.

GENERAL TRUMBULL'S REPLY TO PROFESSOR VON HOLST.

To the Editor of The Open Court:

I am glad to learn that Professor von Holst is not the author of the article in the *Forum* for November, entitled "The Senate in the Light of History"; and I think that he is under some obligations to me for giving him an opportunity to deny the paternity of the nameless contribution. The magazine did not positively "assert" that Professor von Holst was the author of it, but it led its readers to believe so. Not only does Professor von Holst affirm that he is not the author, but he adds: "Nor does the *Forum* say that I am." It is true that a very close and microscopic examination of the *Forum* supports that statement, but the Professor must admit that the place of the article in the *Forum* and the position of its title on the outside of the cover, right under the name of Professor von Holst, and without any other name to indicate its authorship, justify the reader in supposing that it was written by Professor von Holst. It follows in orderly sequence the article entitled, "Shall the Senate Rule the Republic," and it seems to be a second chapter of the main article, "The Decline of the Senate." It appears as a continuation of Professor von Holst's contribution, for the personal pronouns are in their proper places, and to the ordinary reader there is no other personality visible.

The mischief was innocently done while the editor and the sub-editor were off duty, but the inevitable consequence of it was that Professor von Holst appeared in a false position. The readers, too, are misled, for I have talked with many persons about the article, and not one of them has had any suspicion that Professor von Holst was not the writer of it.

Professor von Holst says that the title to his article was "manufactured in the *Forum* office," in the absence of the editor and the sub-editor; and that the heading he had chosen for his essay was cancelled in that office for reasons unknown to him. I sympathise with him in his misfortune, but it only shows what a supernumerary can do when suddenly made stage-manager and let loose among the properties. Professor von Holst is lucky to escape as well as he did, and he may be thankful that the temporary stage-manager did not "cut the lines" and interpolate a few "gags" of his own.

I cheerfully withdraw the remarks I made about "The Senate in the Light of History" so far as those remarks apply to Professor von Holst, but I must let them stand against the article itself, and its invisible author. It now devolves upon him to reveal himself and the "six men of most excellent judgment," who classified the Senate and ticketed the Senators.

M. M. TRUMBULL.

THE OPEN COURT.

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THE FORMS OF LIQUIDS.

A POPULAR SCIENTIFIC LECTURE.*

BY PROF. ERNST MACH.

What think you, dear Euthyphron, that the holy is, and the just, and the good? Is the holy holy because the gods love it, or are the gods holy because they love the holy? By such easy questions did the wise Socrates make the market-place of Athens unsafe and relieve presumptuous young statesmen of the burdens of imaginary knowledge, by showing them how confused, unclear, and self-contradictory their ideas were.

You know the fate of the importunate questioner. So-called good society avoided him on the promenade. Only the ignorant accompanied him. And finally he drank the cup of hemlock, which to-day even we often wish might be the lot of many a critic of his stamp.

What we have learned from Socrates, however,—our inheritance from him,—is scientific criticism. Every one who busies himself with science recognises how unsettled and indefinite the notions are which he has brought with him from common life, and how, on a minute examination of things, old differences are effaced and new ones introduced. The history of science is full of examples of this constant change, development, and clarification of ideas.

But we will not linger at this general consideration of the fluctuating character of ideas, which becomes a source of real uncomfortableness, when we reflect that it applies to almost every notion of life. Rather shall we observe by the study of a physical example how much a thing changes when it is closely examined, and how it assumes, when thus considered, increasing definiteness of form.

The majority of you think, perhaps, you know quite well the distinction between a liquid and a solid. And precisely persons who have never busied themselves with physics will consider this question one of the easiest that can be put. But the physicist knows that it is one of the most difficult. I shall mention here only the experiments of Tresca, which show that solids subjected to high pressures behave exactly as liquids do; for example, may be made to flow out in the form of jets from orifices in the bottoms of vessels. The supposed difference of kind between liquids and solids is thus plainly exhibited as a simple difference of degree.

The common inference that because the earth is oblate in form, it was originally fluid, is an error, in the light of these facts. A rotating sphere, a few inches in diameter, of course, will assume an oblate form only if it is very soft, for example, is composed of freshly kneaded clay or some viscous stuff. But the earth, even if it consisted of the rigidest stone, could not help being crushed by its tremendous weight, and must perforce behave as a fluid. Even our mountains could not extend beyond a certain height without crumbling. The earth *may* once have been fluid, but this by no means follows from its oblateness.

The particles of a liquid are displaced on the application of the slightest pressure; a liquid conforms exactly to the shapes of the vessels in which it is contained; it possesses no form of its own, as you have all learned in the schools. Accommodating itself in the most trifling respects to the conditions of the vessel in which it is placed, and showing, even on its surface, where one would suppose it had the freest play, nothing but a polished, smiling, expressionless countenance, it is the courtier *par excellence* of the natural bodies.

Liquids have no form of their own! No, not for the superficial observer. But persons who have observed that a raindrop is round and never angular, will not be disposed to accept this dogma so unconditionally.

It is fair to suppose that every man, even the weakest, would possess a character, if it were not too difficult in this world to keep it. So, too, we must suppose that liquids would possess forms of their own, if the pressure of circumstances permitted it,—if they were not crushed by their own weights.

An astronomer once calculated that human beings could not exist on the sun, apart from its great heat, because they would be crushed to pieces there by their own weight. The greater mass of this body would also make the weight of the human body there much greater. But on the moon, because there we should be much lighter, we could jump as high as the church-steeples without any difficulty, with the same muscular

* Delivered before the German Casino of Prague, in the winter of 1868. Translated from the German by μκρκ.

power which we now possess.* Statues and "plaster" casts of syrup are undoubtedly things of fancy, even on the moon, but maple-syrup would flow so slowly there that we could easily build a maple-syrup man on the moon, for the fun of the thing, just as our children here build snow-men.

Accordingly, if liquids have no form of their own with us on earth, they have, perhaps, a form of their own on the moon, or on some smaller and lighter heavenly body. The problem simply is, then, to get rid of the effects of gravity; and, this done, we shall be able to find out what the peculiar forms of liquids are.

The problem was solved by Plateau of Ghent, whose method was to immerse one liquid in another of the same specific gravity. He employed for his experiments oil and a mixture of alcohol and water. By Archimedes's well-known principle, the oil in this mixture loses its entire weight. It no longer sinks beneath its own weight; its formative forces, be they ever so weak, have now full play.

As a fact, we now see, to our surprise, that the oil, instead of spreading out into a layer, or lying in a formless mass, assumes the shape of a beautiful and perfect sphere, freely suspended in the mixture, as the moon is in space. We can construct in this way a sphere of oil several inches in diameter.

If, now, we affix a thin plate to a wire and insert the plate in the oil sphere, we can, by twisting the wire between our fingers, set the whole ball in rotation. Doing this, the ball assumes an oblate shape, and we can, if we are skilful enough, separate by such rotation a ring from the ball, like that which surrounds Saturn. This ring is finally rent asunder, and, breaking up into a number of smaller balls, exhibits to us a kind of model of the origin of the planetary system according to the hypothesis of Kant and Laplace.

Fig. 1.

Still more curious are the phenomena exhibited when the formative forces of the liquid are partly disturbed by putting in contact with the liquid's surface some rigid body. If we immerse, for example, the wire framework of a cube in our mass of oil, the oil will everywhere stick to the wire framework. If the quantity of oil is exactly sufficient we shall obtain an oil cube with perfectly smooth walls. If there is too much or too little oil, the walls of the cube will bulge out or cave in. In this manner we can produce all kinds of geometrical figures of oil, for example, a three-sided pyramid, a cylinder (by bringing the oil between two wire rings), and so on. Interesting is the change of form that occurs when we gradually suck out the oil by means of a glass tube from the cube or pyramid. The wire holds the oil fast. The figure grows smaller and smaller, until it is at last quite thin. Ultimately it consists simply of a number of thin, smooth plates of oil, which extend from the edges of the cube to the centre, where they meet in a small drop. The same is true of the pyramid.

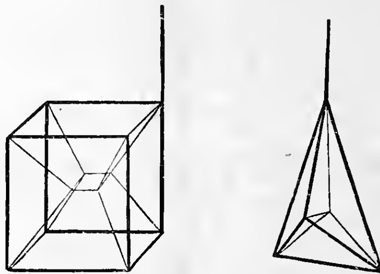

Fig. 2.

The idea now suggests itself that liquid figures as thin as this, and possessing, therefore, so slight a weight, cannot be crushed or deformed by their weight; just as a small, soft ball of clay is not affected in this respect by its weight. This being the case, we no longer need our mixture of alcohol and water for the production of figures, but can construct them in free space. And Plateau, in fact, found that these thin figures, or at least very similar ones, could be produced in the air, by dipping the wire nets described in a solution of soap and water and quickly drawing them out again. The experiment is not difficult. The figure is formed of itself. The preceding drawing represents to the eye the forms obtained with cubical and pyramidal nets. In the cube, thin, smooth films of soap-suds proceed from the edges to a small, quadratic film in the centre. In the pyramid, a film proceeds from each edge to the centre.

These figures are so beautiful that they hardly admit of a description which does them justice. Their great regularity and geometrical exactness elicits surprise from all who see them for the first time. Unfortunately, they are of only short duration. They burst, on the drying of the solution in the air, but only after exhibiting to us the most brilliant play of colors, such as is often seen in soap-bubbles. Partly their beauty of form and partly our desire to examine them more minutely induces us to conceive of methods of endowing them with permanent form. This is very simply done.* Instead of dipping the wire nets in so-

* See, for some interesting developments of this fact, Prof. J. Delbœuf's article on physical and geometric space in *The Monist* for January, 1894.

* Compare Mach, *Ueber die Molecularwirkung der Flüssigkeiten*, Repor of the Vienna Academy, 1862.

lutions of soap, we dip them in pure melted colophonium. When drawn out the figure at once forms and solidifies by contact with the air.

It is to be remarked that also solid fluid-figures can be constructed in the open air, if their weight be light enough, or the wire nets of very small proportions. If we make, for example, of very fine wire a cubical net whose sides measure about one-eighth of an inch in length, we need simply to dip this net in water to obtain a small solid cube of water. With a piece of blotting paper the superfluous water can be easily removed and the sides of the cube made smooth.

Yet another simple method may be devised for observing these figures. A drop of water on a greased glass plate will not run if it is small enough, but will be flattened by its weight, which presses it against its support. The smaller the drop the less the flattening. The smaller the drop the nearer it approaches in form to a sphere. On the other hand, a drop suspended from a stick is elongated by its weight. The undermost parts of a drop of water on a support are pressed against the support, and the upper parts are pressed against the lower parts because the latter cannot yield. But when a drop falls freely downward all its parts move equally fast; no part is impeded by another; no part presses against another. A freely falling drop, accordingly, is not affected by its weight; it acts as if it were weightless; it assumes a spherical form.

A moment's glance at the soap-film figures produced by our various wire models, reveals to us a great multiplicity of form. But great as this multiplicity is, the common features of the figures also are easily discernible.

" All forms of Nature are allied, though none is the same as the other;
Thus, their common chorus points to a hidden law."

This hidden law Plateau discovered. It may be expressed, somewhat prosily, as follows:

1) If several plane liquid films meet in a figure they are always three in number, and, taken in pairs, form, each with another, nearly equal angles.

2) If several liquid edges meet in a figure they are always four in number, and, taken in pairs, form, each with another, nearly equal angles.

This is a strange law, and its reason is not evident. But we might apply this criticism to almost all laws. It is not always that the motives of a law-maker are discernible in the form of the law he constructs. But law admits of analysis into very simple elements or reasons. If we closely examine the paragraphs which state it, we shall find that their meaning is simply this, that the surface of the liquid assumes the shape of smallest area that under the circumstances it possibly can assume.

If, therefore, some extraordinarily intelligent tailor, possessing a knowledge of all the artifices of the higher mathematics, should set himself the task of so covering the wire frame of a cube with cloth that every piece of cloth should be connected with the wire and joined with the remaining cloth, and should seek to accomplish this feat with the greatest saving of material, he would construct no other figure than that which is here formed on the wire frame in our solution of soap and water. Nature acts in the construction of liquid figures on the principle of a covetous tailor, and gives no thought in her work to the fashions. But, strange to say, in this work, the most beautiful fashions are formed.

The two paragraphs which state our law apply primarily only to soap-film figures, and are not applicable, of course, to solid oil-figures. But the principle that the superficial area of the liquid shall be the least possible under the circumstances, is applicable to all fluid figures. He who understands not only the letter but also the reason of the law will not be at a loss when confronted with cases to which the letter does not accurately apply. And this is the case with the principle of least superficial area. It is a sure guide for us even in cases in which the above-stated paragraphs are not applicable.

Our first task will now be, to show by a palpable illustration the mode of formation of liquid figures by the principle of least superficial area. The oil on the wire pyramid in our mixture of alcohol and water, being unable to leave the wire edges, clings to them, and the given mass of oil strives so to shape itself that its surface shall have the least possible area. Suppose we attempt to imitate this phenomenon. We take a wire pyramid, draw over it a stout film of rubber, and in place of the wire handle insert a small tube which leads into the interior of the space enclosed by the rubber. Through this tube we can blow in or suck out air. The quantity of air in the enclosure represents the quantity of oil. The stretched rubber film, which, clinging to the wire edges, does its utmost to contract, represents the surface of the oil endeavoring to decrease its area. By blowing in and drawing out the air, now, we actually obtain all the oil pyramidal figures, from those bulged out to those hollowed in. Finally, when all the air is pumped or sucked out, the soap-film figure is exhibited. The rubber films strike together, assume the form of planes, and meet at four sharp edges in the centre of the pyramid.

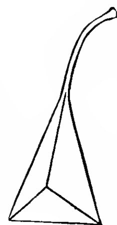
Fig. 3.

The tendency of soap-films to assume smaller forms may be directly demonstrated by a method of Van der

Mensbrugghe. If we dip a square wire frame to which a handle is attached into a solution of soap and water, we shall obtain on the frame a beautiful, plane film of soap-suds. On this we lay a thread whose two ends have been tied together. If, now, we puncture the part enclosed by the thread, we shall obtain a soap-film having a circular hole in it, whose circumference is the thread. The remainder of the film decreasing in

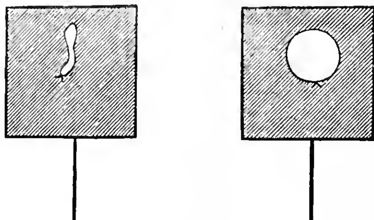

Fig. 4.

area as much as it can, the hole assumes the largest area that it can. But the figure of largest area, with a given periphery, is the circle.

Similarly, according to the principle of least superficial area, a freely suspended mass of oil assumes the shape of a sphere. The sphere is the form of least surface for a given content. This is evident. The more we put into a travelling-bag, the nearer its shape approaches the spherical form.

The connexion of the two above-mentioned paragraphs with the principle of least superficial area may

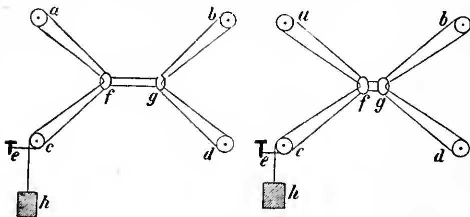

Fig. 5.

be shown by a yet simpler example. Picture to yourselves four fixed pulleys, *a*, *b*, *c*, *d*, and two movable rings *f*, *g* (Fig 5); about the pulleys and through the rings imagine a smooth cord passed, fastened at one extremity to a nail *e*, and loaded at the other with a weight *h*. Now this weight always tends to sink, or, what is the same thing, always tends to make the portion of the string *e h* as long as possible, and consequently the remainder of the string, wound round the pulleys, as short as possible. The strings must remain connected with the pulleys, and on account of the rings also with each other. The conditions of the case, accordingly, are similar to those of the liquid figures discussed. The result also is a similar one. When, as in the right hand figure of the cut, four pairs of strings meet, a different configuration must be established. The consequence of the endeavor of the string to shorten itself is that the rings separate from each other, and that now at all points only three pairs of strings meet, every two at equal angles of one hundred and twenty degrees. As a fact, by this arrangement the greatest possible shortening of the string is attained; as can be easily demonstrated by geometry.

This will help us to some extent to understand the creation of beautiful and complicated figures by the simple tendency of liquids to assume surfaces of least superficial area. But the question arises, *Why* do liquids seek surfaces of least superficial area?

The particles of a liquid cling together. Drops brought into contact coalesce. We can say, liquid particles attract each other. If so, they seek to come as close as they can to each other. The particles at the surface will endeavor to penetrate as far as they can into the interior. This process will not stop, cannot stop, until the surface has become as small as under the circumstances it possibly can become, until as few particles as possible remain at the surface, until as many particles as possible have penetrated into the interior, until the forces of attraction have no more work to perform.*

The root of the principle of least surface is to be sought, accordingly, in another and much simpler principle, which may be illustrated by some such analogy as this. We can *conceive* of the natural forces of attraction and repulsion as purposes or intentions of nature. As a matter of fact, that interior pressure which we feel before an act and which we call an intention or purpose, is not, in a final analysis, so essentially different from the pressure of a stone on its support, or the pressure of a magnet on another, that it is necessarily unallowable to use for both the same term —at least for well-defined purposes.† It is the purpose of nature, accordingly, to bring the iron nearer the magnet, the stone nearer the centre of the earth, and so forth. If such a purpose can be realised, it is carried out. But where she cannot realise her purposes, nature does nothing. In this respect she acts exactly as a good man of business does.

It is a constant purpose of nature to bring weights lower. We can raise a weight by causing another, larger weight to sink; that is, by satisfying another, more powerful, purpose of nature. If we fancy we are making nature serve our purposes in this, it will be found, upon closer examination, that the contrary is true, and that nature has employed us to attain her purposes.

* In almost all branches of physics that are well worked out such maximal and minimal problems play an important part.

† Compare Mach, *Vorträge über Psychophysik*, Vienna, 1863, page 41; also, *Compendium der Physik für Mediciner*, Vienna, 1863, page 234.

Equilibrium, rest, exists only, but then always, when nature is brought to a halt in her purposes, when the forces of nature are as fully satisfied as, under the circumstances, they can be. Thus, for example, heavy bodies are in equilibrium, when their so-called centre of gravity lies as low as it possibly can, or when as much weight as the circumstances admit of has sunk as low as it possibly can.

The idea forcibly suggests itself that perhaps this principle may also find application outside the realm of so-called inanimate nature. Equilibrium exists also in the state when the purposes of the parties are as fully satisfied as for the time being they can be, or, as we may say, jestingly, in the language of physics, when the social potential is a maximum.*

You see, our miserly mercantile principle is replete with consequences. The result of sober research, it has become as fruitful for physics as the dry questions of Socrates for science generally. If the principle seems to lack in ideality, the more ideal are the fruits which it bears.

But why, tell me, should science be ashamed of such a principle? Is science† itself anything more than—a business? Is not its task to acquire with the least possible work, in the least possible time, with the least possible thought, the greatest possible part of eternal truth?

* Like reflexions are found in Quételet, *Du système sociale*.

† Science may be regarded as a maximum or minimum problem exactly as the business of the merchant. In fact, the intellectual activity of natural inquiry is not so greatly different from that exercised in ordinary life as is usually supposed.

GOETHE AND SCHILLER'S XENIONS.

The appearance of the Xenions in the "Musen-Almanach" of 1797 is a memorable event in the literature of Germany and in that of the world. With the end of the eighteenth century a new era had commenced. New ideals, philosophical, religious, and social, had dawned upon mankind.

The two great apostles of this movement were Goethe and Schiller; yet great as they were, they found not sufficient support among those who should have been their first followers and disciples. The men of literary callings, who should be the priests of the holiest interests of humanity, were too envious to fully recognise and acknowledge the merit of these two great poet-thinkers. Moreover, the men of letters were chiefly enamoured of their own traditional methods of literary production and could not appreciate the purity, the grandeur, and the holiness of the new taste. They misunderstood the progress-promising spirit of the time, and to their puny minds the rise of the new era appeared as a mere disturbance of their traditional habits. They looked upon the twin-giants of the world of thought as usurpers, who from personal vanity and ambition tyrannised all others, and whose impositions had either to be resisted, or silenced by shrugs. The irritation of the literary dwarfs showed itself in malevolent reviews of Schiller's literary enterprise, "Die Horen."

Schiller wrote to Goethe June 15, 1795:

> "I have thought for some time that it would be well to open a critical arena in 'Die Horen.' Yet we should not give away our rights by formally inviting the public and the authors. The public would certainly be represented by the most miserable voices, and the authors, as we know from experience, would become very importunate. My proposition is that we make the attack ourselves. In case the authors wish to defend themselves in 'Die Horen,' they must submit to our conditions. And my advice is, not to begin with propositions, but to begin with deeds. There is no harm if we are denounced as ill-bred."

Several letters were exchanged on this subject, and Goethe wrote in a letter of December 23, 1795, to Schiller:

> "We must cultivate the idea of making epigrams upon all journals; one distich for each magazine, in the manner of Martial's Xenia; and we must publish a collection of them in the 'Musen-Almanach' of next year. Enclosed are some Xenions as a specimen."

Schiller answered at once, December 23, 1795:

> "The idea of the Xenions is splendid and must be executed... What a wealth of material is offered by the Stolbergs, by Racknitz, Ramdohr, the metaphysical world with its *Me's* and *Not-Me's*, friend Nicolai, our sworn enemy, the Leipsic taste-mongers, Thümmel, Göschen as his horse-groom, and others."

Goethe and Schiller agreed to publish all their Xenions together, and regard them as common property.

It happened now and then that the authors of the Xenions hit the wrong man; but this, although we may be sorry for it, was more excusable than the dirt which their adversaries threw back.

The Xenions, as was to be expected, raised a storm of indignation, and Anti-Xenions were written by many who had been attacked. But while the tenor of the Xenions, in spite of their personal character, is lofty, and while we feel the high aims of Goethe and Schiller in their attempts at a purification of literature, the Anti-Xenions are *wholly* personal. They are rude, malicious, and mean. They insinuate that the Xenions were prompted by vile motives; that Goethe and Schiller wanted more praise and flattery; that they were envious of the laurels of others, and wanted to be the sole usurpers of Mount Parnassus. Schiller was called Kant's ape, and Goethe was reproached with his family relations.

The history of the Xenions is their justification. The Anti-Xenions are in themselves alone a wholesale condemnation of the opposition made to Goethe and Schiller.

Goethe wrote to Schiller concerning the reception which the Xenions found, on December 5, 1796:

"It is real fun to observe what has been offensive to this kind of people, and also what, they think, has been offensive to us How trivial, empty, and mean they consider the life of others, and how they direct their arrows against the outside of a work. How little do they know that a man who takes matters seriously lives in an impregnable castle."

Goethe and Schiller had wielded a vigorous and a two-edged weapon in the Xenions. They had severely chastised their antagonists for incompetency ; but now it devolved upon themselves to prove the right of their censorship. And they were conscious of this duty. Goethe wrote, November 15, 1796 :

"After the bold venture of the Xenions, we must confine our labors strictly to great and worthy works of art. We must shame our adversaries by changing our Protean nature henceforth into noble and good forms."

Deeds proved that Goethe, as well as Schiller, were not only willing, but also able, to fulfil these intentions. Their antagonists have disappeared. Some of them would be entirely forgotten, if the two poets had not immortalised them in the Xenia.

Many Xenions are of mere transitory importance, especially such as contain allusions and criticisms that are lost to those who are not thoroughly versed in the history of the times. Yet, many others are gems of permanent value ; they reflect in a few words flashes of the deepest wisdom.

Only a few of the Xenions have been translated into English, and as they are little known, we have extracted and translated those which we deem worthy of being preserved for all time.*

INTRODUCTORY.

OUR PURPOSE.

These brisk verses, revering the good, will annoy the Philistines,
Ridicule bigots, and smite hypocrites, as they deserve.

THE LAST MARTYR.

That you may roast me like Huss, is possible ; but it is certain,
After me cometh the swan who will my mission complete.

[It will be remembered that Huss, whose name means "goose," said when condemned to die at the stake, "After me will come a swan whom they will not roast."]

OUR COMMON FATE.

Oh, how we struggle and hate ! Inclinations, opinions, divide us.
Yet in the meantime your locks turn into silver like mine.

TO INCOMPETENT REVIEWERS.

Difficult 'tis to achieve ; criticism is easy, O critics !
Shrink not, when finding a flaw, freely from praising the good.

TO SOME CRITICS.

Wretches ! Speak evil of me, but oblige me by truthfully adding :
Serious is he ! For the rest— wretches speak evil of me.

* The schedule of the distich is as follows :

—⏑⏑—⏑⏑—⏑⏑—⏑⏑—⏑⏑—⏑
—⏑⏑—⏑⏑— ‖ —⏑⏑—⏑⏑—

For further reference we refer the reader to a previous article of ours published in No. 12 of *The Open Court* (*Goethe and Schiller's Xenions*).

PARTISAN SPIRIT.

Where there are parties, the people are siding with zeal on each issue.
Years must elapse before both join in a middle their hands.

THE POET ADDRESSES HIS MUSE.

How I could live without thee, I know not. But horror o'ertakes me
Seeing these thousands and more who without thee can exist.

THE DISTICH.

In the hexameter rises the jet of a wonderful fountain,
Which then graciously back in the pentameter falls.

SOUL AND WORLD.

OUR OWN.

Common possessions are thoughts, and sentiment only is private.
Shall He your property be, feel Him—the God whom you think.

THE KEY.

Wilt thou know thyself, observe how the others are acting.
If thou the others wilt know, look in the heart of thyself.

WORTH AND VALUE.

Have you something ? O give it to me, and I'll pay you its value.
Are you something, my friend ? Let us exchange, then, our souls !

MYSTICS.

That is the very mysterious secret that openly lieth,
Always surrounding your minds, but from your sight 'tis concealed.

THE HIGHEST.

Do you desire the highest and greatest ? A plant can instruct you.
What it unconsciously is, will it ! 'Tis all you can do.

VARIOUS DESTINIES.

Millions of people are busy, the race of mankind propagating,
But in the minds of a few, only, humanity grows.

THE VINCULUM.

How has Nature in man united the high and the vulgar ?
Vanity she has placed right in the middle of them.

PRESENT GENERATION.

Has it been always as now ? How strange this to-day's generation !
Only the old ones are young, only the young ones are old.

ZEUS TO HERACLES.

Thou hast divinity, son, not acquired by drinking my nectar ;
But thy divinity t'was, which gained the nectar for thee.

THE IMMUTABLE.

Time, unimpeded, is hastening on. It seeketh the Constant.
He who is faithful will bind time with eternity's ties.

GOD, WORLD, AND MAN.

'Tis not a mystery great, what God, what the world, and what man is !
But as none fancy the truth, always the secret remains.

IMMORTALITY.

Art thou afraid of death ? Thou wishest for life everlasting.
Live as a part of the whole, when thou art gone it remains.

HARMONY.

Reason, what is it? The voice of the whole; thy heart is thy selfhood.
Happy thou art, if for aye reason will dwell in thy heart.

HUMAN LIFE.

When we are starting in life, an eternity opens before us.
Yet will even the wise narrowly limited end.

TEMPTATION.

Ev'ry fanatic be nailed to the cross when he reaches the thirties,
For if he knows but the world, surely the dupe will turn rogue.

SALVATION.

Out of life there are two roads for every one open:
To the Ideal the one, th' other will lead unto death.
Try to escape in freedom, as long as you live, on the former,
Ere on the latter you are doomed to destruction and death.

LIGHT AND COLOR.

Live, thou Eternally-One, in the realm of immutable oneness,
Color, in changes so rich, kindly descend upon earth!

OUR FATHER.

Though you aspire and work, you will never escape isolation,
Till with her might to the All Nature has knitted your soul.

[TO BE CONTINUED.]

CURRENT TOPICS.

ANOTHER "League" has been organised for work in the field of American politics, and in that field there is always work for everybody. Industry is forever active there, and business is never dull. This new disturber of ancient privileges is called "The Anti-Spoils League," and the President of it is Gen. Carl Schurz. It has a "platform," a purpose, and all the other machinery of a "league." It calls for "the complete abolition of the Spoils System from the public service," and, like every other league, it hopes for "a general uprising of the people" to enforce its demand, believing the Spoils System to be "unjust, undemocratic, injurious to political parties, fruitful of corruption, a burden to legislative and executive officers, and in every way opposed to the principle of good government." The description is well enough as a bit of literary composition, but where does the League find authority for calling the Spoils System "undemocratic"? We have a habit of putting our thoughts into a sort of ironical disguise, and with admirable impudence we condemn certain customs peculiar to our own country as "un-American," and certain practices characteristic of democracies as "undemocratic," until those ill-used adjectives have become cant words, almost idiomatic in American speech. The Spoils System, if entitled to any political epithets at all, is "democratic" and "republican." It is extinct in Germany, England, and in the other "effete monarchies," but it is the obedient servant of both parties in the United States. It has flourished here for seventy years, and it is in a state of healthy preservation still.

* * *

The debate on the proposed new tariff is just begun in Congress, and I hope the Republicans will be lenient in their censure, considering that the majority report of the Committee on Ways and Means is a rather courteous apology for "tinkering" the tariff at all. I notice that whenever a change is proposed in the direction of lower taxes it is described as "tinkering," but if in the direction of higher taxes, it is called "amending" the tariff. A temperance lecturer detected in the act of drinking whiskey, excused himself by saying that although he was in favor of prohibiting the liquor-traffic, he was not bigoted. This excuse will avail the Committee on Ways and Means. Their eloquent "report" shows that although they condemn the protective tariff, they are not bigoted. "In dealing with the tariff question," says the report, "the legislator must always remember that in the beginning temperate reform is safest, having in itself the principle of growth." The patient having a serious case of measles, the doctors propose a course of "temperate reform," and heroically devote themselves to the cure of six measles a year, hoping that in the course of a hundred years or so all the measles will be gone. The report of the committee ought to be satisfactory to both sides, for it blends together, in a very skilful way, free-trade ethics and protection politics. Free trade gets the sentiment, but protection gets the taxes.

* * *

Conservative and tender of the tariff as it is, perhaps, the Wilson Bill goes as far on the free-trade road as any bill could go with any prospect of success; and at all events it will test the wisdom of a protective tariff. For instance, if the abolition of the tariff on wool gives the people more clothes, cheaper clothes, and better clothes, it will make more work for weavers and tailors, and temper the northern winters to the poor. In the torrid zone there can be no serious objection to a tariff on wool, but in the realms of ice and snow it lowers the temperature on an average ten degrees, and it raises the death rate more than twenty degrees. It is not very high moral statesmanship that forbids to any portion of the people the use of wool. Free wool is opposed, not so much on its own account, as from a fear that it will make other things free. It is dangerous because it may set a good example.

* * *

Why should a man, because he happens to be governor, usurp the right of "spellbinding" his defenceless people by hysterical declamation whenever he gets them at his mercy? This is becoming a burning question because "Governor's rhetoric," from the Rocky mountains to the Blue ridge, menaces the grammar and the grace of our venerable mother tongue. Mr. Charles O'Ferrall has just been sworn in as Governor of Virginia, and his "inaugural" was inflated with Governor's rhetoric to the size of the monster balloon. In a spasm of loyalty to Virginia, he said: "She has never swerved from the lighted way of the Constitution; the song of the siren has never tempted her; the tongue of the flatterer has never seduced her; the voice of the hyena has never frightened her; the menace of tyranny has never terrified her; the howlings of the wolf have never disturbed her; the threats of malice have never alarmed her. Firm and immovable she has stood through all the years that have run their cycles," and so on, in Governor's rhetoric to the end. Serene she stands, defying the whole mythological and zoölogical menagerie, sirens, hyenas, wolves, and all the rest. Considering that the old commonwealth is of the feminine gender, it was easy for her to resist "the song of the siren," but for that reason it is more to her credit that the "voice of the hyena" has never frightened her, nor the "howlings of the wolf" disturbed her. Bravely she has resisted those dangers and temptations, but greater trials are before her, and she must yet prove by greater heroism that she is able to endure for two years, and perhaps four, the oratorical gymnastics of the Governor.

* * *

The champion soporific sermon for 1893 was preached last Sunday evening by the Rev. C. E. Wilkinson of Evanston. During its delivery, Frank Wilson, a member of the congregation, fell asleep, and in spite of the tin-horn salutation to New Year's day, and many other noises, he slept continuously for sixty hours. The case is exciting some psychological and physiological curiosity, but up to the present moment, the preacher has not been arrested, nor has any warrant been sworn out against him; and this reminds n of Israel Jacobs of Marbletown, in 1855. A queer combination o names is Israel Jacobs, but I have to tell the story truthfully or not at all, and one hot Sunday he fell asleep and snored, lulled

into oblivion by a monotonous, drowsy sermon preached by the Rev. Thomas Thompson, D. D., affectionately remembered by the old settlers of Marbletown to this day, as "Little Tommy Thompson." Under that provision of the Iowa code which punishes any person who disturbs a worshipping congregation, Mr. Jacobs was carried before old Squire Vinton, who fined him one dollar. Israel paid the money, exclaiming as he did so, "Wall, thar's the dollar, but ain't nothin' goin' to be done with Tommy Thompson?"

* * *

Although two men may have equal chances, only one of them can "get there first," and this bit of luck may depend upon an accident. Commenting yesterday on the feat of Mr. Wilkinson, who preached a man into a sleep that lasted sixty hours, I was conceited enough to think I had succeeded very well, but looking at this morning's paper, I saw, to my consternation, an article there on the same topic, expressing my own thoughts in almost my own words. The editor of that paper had "got there first," and I was compelled to change the phraseology of my own essay, in order to escape the charge of plagiarism. That we should both have used the word "soporific" was natural enough, and it was not surprising that we should have referred to Mr. Wilkinson as the champion in his line, but it is astonishing that from sheer poverty of ideas, we borrowed from our election-literature the tattered and worn out substitutes for wit, which appear under such phrases as the "latest returns," "with several counties yet to hear from," and other venerable "chestnuts" of the same kind. Showing the parallels to a counselor and friend, I was told to be original hereafter, as if "to be original" was easily within the scope of every man's ability. A few years ago, I saw in England, a rowing-match between two men, called Higgins and Elliott, and a north country man who stood near me, gave this advice to Elliott, who was a hundred yards behind, "Gang past him, lad, gang past him." It is well "to be original," and in a race with a competitor it is advisable to "gang past him," but neither feat is quite so easy as it seems to be.

M. M. Trumbull.

NOTES.

Count Leo Tolstoï writes to us, "*Posrednik* has the intention of reviewing and publishing, under my supervision, some of the articles which have appeared in your periodical."

BOOK NOTICES.

We have not yet noticed in the columns of *The Open Court* an important scientific work recently published by our Company, which is in every respect deserving of the attention of our readers. This work is the authorised English translation of Professor Mach's well-known *Science of Mechanics*—a book which is now in its second edition in Germany, and which has taken a pre-eminent place in the scientific and philosophical literature of the times. Words of commendation, on our part, would be superfluous; we need only refer here to the aim and character of the work, which, briefly stated, is to free the notions of science from metaphysical and historical obscurities, and to present the principles of mechanics in the form and light of their development. The book is, first, a history of mechanics and an exposition of its abstract principles, and, secondly, a critical analysis of the origin of science and of the methods by which it is built up. A more interesting and profitable method of studying the theory of knowledge is not conceivable; in fact it is contended by eminent philosophers that this is the only correct method. The book, thus, will be of great value, not only to the scientist who wishes more than a mere routine-knowledge of his subject, but also to the philosophical student and general reader. It is impossible in a short notice to enumerate all the points of excellency of the book, but mention may be made of one interesting feature. This is the reproduction of the clear and beautiful thoughts of the original inquirers, augmented by fac-simile reproductions of the illustrations of their works. This feature has a very stimulating and refreshing effect upon the mind, is a great impulse to investigation, and, as it shows us that the heroes of thought had to overcome the very same obstacles in their work which we encounter, will inspire us with additional confidence in our own intellectual powers. (Chicago: The Open Court Publishing Company. Pages, xiv, 534. Price, $2.50.)

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TYNDALL.*

BY MONCURE D. CONWAY.

The younger generation in this South Place Society can hardly realise the brave and noble services rendered by John Tyndall in making intellectual liberty a religion. He sowed much of the harvest we are reaping. His widow, with whom in her calamity the hearts of all sympathise, who with her mother formerly attended South Place Chapel, has, I believe, dedicated her life,—as indeed it was always dedicated,—to her husband, and is gathering his letters. She will, no doubt, give to the world a faithful record of his life. Many a sufferer, wrestling with slow death, might envy him his release by a mistake of the hand of love while ministering to him. His own last thought was for his "poor darling," for whom his release must leave a tragical memory. But we will trust that, in the depths of a sorrow hardly imaginable by others, she will find the strength and inspiration to bring him, as it were, to life again, and by her loving portraiture, her thorough appreciation of his scientific genius, restore him to the world from which he had long been much withdrawn by invalidism.

There was in Tyndall a large-heartedness, a poetic fineness of spirit, which only a loving and cultured wife can fully interpret. My own friendship with him began more than a quarter of a century ago. His courage opened to me the theatre of the Royal Institution, where among other lectures those afterwards enlarged into my "Demonology" were given. He was an enthusiastic admirer of Emerson, my early master, whom he often quoted, and at whose death he invited me to give an address at the Royal Institution. What he especially loved in Emerson was his perfect faith in science, and his "fluidity," to remember Tyndall's own word, which, like a tide, followed the star of truth whatever confines of creed or theory might be overpassed or floated. I learn from Mrs. Tyndall that only a few weeks ago her husband was desired to choose from his writings, for an Anglo-American magazine, a motto for the new year. He selected from his "Fragments of Science" (p. 231) these words: "I choose the nobler part of Emerson, where, after various disenchantments, he exclaimed, 'I covet truth!' The gladness of true heroism visits the heart of him who is really competent to say this."

At the same time, Tyndall was tenderly reverent towards the sentiment represented in the shrines of human faith. There were points at which superstition was harmful to mankind, and therein Tyndall calmly but crucially probed it. Such was what used to be called "Tyndall's Prayer-gauge." There was a widespread notion, and even a sect, founded in the biblical prescription of prayer for disease; and Tyndall proposed that there should be two hospitals, one under prayer cure, the other exclusively under medical science, so that the percentage of recoveries might decide which was the more effectual treatment. The challenge was wrathfully declined by the pulpits, but had its effect. That superstition lingers, but has had to ally itself with medical agencies, and calls itself "Christian Science."

But Tyndall dealt very tenderly even with what he conceived superstition when he met with it in any form that involved human hope and aspiration. The Brahmo minister, Mozoomdar, desired me to arrange an interview with Tyndall, and in the conversation, at which I was present, the Hindu poured out his soul with fervor, his faith being a devout theism, and human immortality. Mozoomdar was evidently anxious to carry back to India some confession from Tyndall of a faith so simple. I shall never forget how modestly and almost affectionately, yet shrewdly, Tyndall said: "You must feel that one with my views, and in my position, could enter upon any statement relating to such vast subjects only with such precautions, reservations, and exact definitions, as, I fear, would render it of little interest to you." I made notes of the conversation, but have them not in this country, and must trust to the strong impression left on me of Tyndall's conscientiousness as well as his sympathy. He loved to select the good and true from any environment of error, and did his best to preserve continuity with the religious life of his country. He was an earnest pleader for a more rational Sunday, and did much to influence the London clergy in that cause. At a large public meeting for opening the Museums, at which Dean Stanley presided, a number of clergymen being on the platform, Tyndall made an admira-

* From a discourse given in London, December 24, 1893.

ble speech; one memorable also for an inadvertant remark, in which he said, "We only ask a part of the Sunday for intellectual improvement." This caused much amusement, especially among the preachers present, and Dean Stanley, I believe, thought it the best thing said. Tyndall had meant no satire, but, as it was taken good naturedly, made no apology except a smiling bow to the clergy.

In the congress of liberal thinkers, which sat for several days in this Chapel, a good many years ago, Tyndall was much interested, and consented to act on a permanent Council which was proposed. That, however, was never completely constituted, it being found, after a number of meetings, that there was danger of our being understood as establishing some kind of new sect. The discussions that went on in that Council were of great interest and made clear to us all the conviction that freedom of religious thought could not be really advanced by any general organisation. It must act as leaven, and could not be diffused if lumped in any way that might separate it from the "measures of meal" it should raise. And in this connexion I may say that I perhaps owe, at least in part, to Tyndall's influence a change in my feeling towards public teachers associated with creeds and traditions.

I will recall one more incident. On the day of the burial of Sir Charles Lyell in Westminster Abbey, I could not help some rebellion, while listening to the service, that it should be read over that great man, who was in sympathy with South Place and often came here (though he more regularly listened to Martineau). I walked from the Abbey with Tyndall, and mentioned to him, I think, that not long before I had, with Sir Charles, listened to a characteristic discourse from Martineau, and he had expressed his wonder that people should crowd other churches whilst such sermons as that could be heard. I also said that there appeared to me something hollow in parts of the funeral service when read over such a man as Lyell. Tyndall stopped, turned, looked on the Abbey and its towers, and, after some moments of silence, said: "When I think of that Abbey, of the ages that built it, and all the faith, hopes, and aspirations that have gone into it, and even into the service, I can remember only what it all means, not what it says. The ancient faults and phrases are merged in a golden mist, and the Abbey is a true monument for my old friend."

Tears started to his eyes. I had my lesson, which I have never forgotten. Or, I should say, my lessons; for, although one of them tended to give me a more catholic feeling towards institutions that embody, however imperfectly, the spiritual history of humanity, another lesson impressed on me a conviction that, were the church of to-day faithful to its own history, such men would not merely find in the Abbey their sepulchre, but their pulpit. When Dean Stanley remonstrated with the Rev. Stopford Brooke against his leaving the English Church, Mr. Brooke, so he told me, asked him, "Could James Martineau ever be Archbishop of Canterbury?" "Never," said Stanley. "Then," said Mr. Brooke, "the church is no place for me." For myself, I do not feel certain that the Dean was right. That historic sentiment, united with free thought, the natural fruit of culture, though it now draws scholars out of the Church, may presently draw them into it, over lowered bars of creed and formula, and make it once more the organ of the religious genius of England. And should that happy era come, those who enjoy it will owe more than they can ever know to the high standard of intellectual honor, the fidelity to truth, the absolute integrity of heart, and the reverential spirit, of our beloved John Tyndall.

THE STATE A PRODUCT OF NATURAL GROWTH.

We have answered the question "Does the State exist?" in the affirmative;* for the social relations between man and man are actual and important realities. How a number of citizens are interrelated, whether in the form of a patriarchical community, or of a monarchy or of a republic, is by no means a matter of indifference; these interrelations are real; and they are a vital factor in the concatenation of causes and effects. They may be compared to the groupings of atoms and molecules in chemical combinations. The very same atoms grouped in two different ways often exhibit radically different phenomena; so that we naturally incline to believe that we are dealing in such cases with different chemical substances. In like manner, the same race of men will exhibit different national characteristics if combined under different systems of society and State-organisation.

But there are other problems connected with the idea of the reality of social relations. The questions arise: What is a State? What difference obtains between society and State? And, granted that society has a right of existence, is not perhaps the State a tyrannical institution which must be abolished?

State is obviously a narrower concept than society. The State is a special form of social relations. Society is the genus and State is a particular species. Social relations are first, and out of them States develop. States are more fixed than the primitive social conditions from which they come.

As animals of definite kinds are more stable in their character than the amœboid substance from which they have taken their common origin, so States are a further step forward in the evolution from primitive social relations. This is the reason why the absence of State-

* See *The Open Court*, No. 272.

institutions is commonly regarded by anthropologists and historians as a symptom of extraordinary immaturity in a people. And justly so, for no civilised nation exists whose citizens are not united by the social bonds of State-life, and only the lowest savages are without any form of State-institutions.

The State has frequently been called an artificial institution while primitive society is supposed to be the natural condition of mankind. In this sense Rousseau regarded all culture and civilisation as unnatural. This view is ridiculous and absurd. All progress on this supposition would have to be branded as an aberration from nature. We think that on the contrary every advance in evolution denotes a higher kind of nature; man's progress is based upon a clearer comprehension of nature and consists in his better adaptation to surrounding conditions. Thus these nature-philosophers in their efforts to be natural, reverse the course of nature and become unnatural in the highest degree. The State is as little artificial (i. e. unnatural) in comparison with the so-called natural condition of savage life, as the upright gait of man can be said to be artificial as contrasted with the walk of quadrupeds. The State is of natural growth not less than the other institutions of civilised society. We might as well decry (as actually has been done) the invention of writing and the use of the alphabet as unnatural.

What is the nature of the State?

The State briefly defined is "the organisation of the common will of a people."

The common will of the people may be poorly, disproportionately, or even unjustly represented in the State-organisation. It is a frequent occurrence that large classes do not assert their will, either because they do not care to assert it or because they are too timid to do so, so that the State is little influenced by them. But that is another question. In defining the nature of the State, we do not say that all states are perfect, nor do we defend the evils of their inferiority.

Every horde of wild animals possesses certain common interests, for it is these very interests which make them a horde. A horde of talking animals, however, will soon become aware of their common interests. They will, in discussing the problems of their tribal life, more and more clearly understand the situation and regulate the means of attending to the common interests according to their best experience. Common interests create a common will, and as soon as this common will becomes consciously organised by habits, traditions, and the ordinances of those who have the power to enforce them, by written or unwritten laws, by acts of legislatures, or similar means, the primitive social life enters a higher phase of its evolution: it changes into a State.

The State-relations do not cover all the social relations of a people, but only those which are created or animated by their common will. All the other relations among the single citizens of a State, that is those which are of a private nature, stand only indirectly in connexion with the State-relations.

The State is not constituted by laws and institutions alone; the State is based upon a certain attitude of the minds of its members. The existence of a State presupposes in the souls of its citizens the presence of certain common ideas concerning that which is to be considered as right and proper. If *these ideas* were absent, the State could not exist.

That our life and property in general is safe, that we buy and sell, marry and are given in marriage, that the laws are observed, and that in ordinary circumstances we hold intercourse with one another mutually trusting in our honest intentions; that, also, we struggle and compete with one another and try our best to maintain our places in the universal aspiration onward:—all this is only possible because we are parts of the same humanity and the children of the same epoch, possessing the same ideas of right and wrong, and bearing within ourselves in a certain sense the same souls.

Could some evil spirit, over night, change our souls into those of savages and cannibals, or even into those of the robber-knights of the Middle Ages, all our sacred laws, all our constables, all the police-power of the State would be of no avail: we should inevitably sink back to the state of civilisation in which those people existed. But could a God ennoble our souls, so that the sense of right and wrong would become still more purified in every heart, then better conditions would result spontaneously and much misery and error would vanish from the earth. And the God that can accomplish that, lives indeed—not beyond the clouds, but here on earth, in the heart of every man and woman.

It is the same power that has carried us to the state of things in which we now are; it is the principle of evolution, it is the aspiration onward, the spirit of progress and advancement.

The State is based upon certain moral ideas of its members; and State-institutions, such as schools, laws, and religious sentiments, exist mainly for the purpose of maintaining and strengthening the moral ideas of the present and future generations.

We do not intend to discuss here the evolution of the State. Nor do we propose to estimate the moral worth of its present phase. The ideals of the various existing States are just emerging from a barbarous world-conception, and we are working out a nobler and better future. Should this better future be realised, let us hope that our posterity will still feel the need of future progress as much as we do now. We simply

wish to elucidate the nature of the State so as to understand the purpose and the laws of its evolution.

The objects upon which the common will of a people is directed are, (1) protection against enemies, (2) the administration of justice among its members, (3) the regulation of common internal affairs; which last point, in higher developed States, consists of two distinct functions, (*a*) of establishing the maxims according to which the commonwealth is to be administered, and (*b*) of executing these maxims and enforcing them.

The need of protection against foreign enemies has created our armies and navies, which, in their present form, are quite a modern invention. That powerful State-communities were not satisfied with defending themselves, but frequently became aggressive, either for the sake of a more effective defence or from a pure desire of aggrandisement, is a fact which has nothing to do with our present subject. Warfare is the main, but not the sole, external function of the State. It has been supplemented in modern and more peaceful times by commercial treaties and other international adjustments.

The internal functions of the modern State are performed by the judiciary, by the legislative bodies, and by the executive government. All these organs of the State have become what they are in quite a natural course of evolutionary growth simply by performing their functions, like the organs of animal bodies.

A certain want calls for a certain function, and the performance of this function develops the organ.

The State has been compared to an organism, and this comparison is quite admissible, within certain limits.

True enough that the historical growth of our modern States is within reach of our historical tradition, and we know very well that one most important factor of this growth has been the conscious aspiration of individuals after their ideals—a factor which is either entirely absent from or only latent in the development of organs in animal organisms. The assumption that the cells of the muscles, the liver, or the kidneys, are conscious of the work they perform, that they have notions of duty and ideals, is fantastical. Moreover, there is no need of resorting to this explanation, since the theory that function develops organs, together with the principles of selection and of the survival of the fittest, sufficiently accounts, if not for all problems connected therewith, yet certainly for the problem of their existence in general.

As a factor in the development of States the conscious aspiration of individuals for their ideals even, in practical life, cannot be estimated high enough; for this factor has grown in prominence with the progress of the race, and it is growing still. In the explanation of the origin of States, however, this very factor can most easily be overrated, and it has been overrated, in so far as some savants of the eighteenth century, the great age of individualism, have proposed the now obsolete view that States are and can be produced only by a conscious agreement among individuals, which, however, they grant, may be tacitly made. And this theory found its classical representation in Rousseau's book, "Le contract social," in which the existence of the State is justified as a social contract. This is an error: States develop unconsciously and even in spite of the opposition of individuals; and it is a frequent occurrence that the aspirations of political or other leaders do not correspond with the wants of their times. Thus it so often happens that they build better than they know, because they are the instruments of nature. The growth of States is as little produced by conscious efforts as the growth of our bodies. Conscious efforts are a factor in the growth of States, but they do not create States.

A State grows solely because of the need for its existence. Certain social functions must be attended to; they are attended to, and thus the State is created as the organ of attending to them.

Conscious aspirations, although they do not build States, are indispensable for properly directing the State-creating instincts of a social body. In like manner, an intelligent observation of hygienic rules is not the creative faculty that produces the growth of organs, but it is an indispensable condition keeping the organs in good health. The more clearly the common wants of a nation are recognised, the better will be the methods devised to satisfy them. The more correctly the nature of society and of its aims is understood, the more continuous will be the advance of civilisation.

The social instincts which have created the State, the love of country, and of the country's institutions and traditions, are so deeply ingrained in individuals that in times of need they come to the surface, (sometimes timely, sometimes untimely,) even in spite of contrary theories. Let the honor of a country be attacked and you will see that hundreds and thousands of the people, who from their individualistic point of view deny the very right of existence to our national institutions, will clamor for war.

When, on the 14th of July, 1870, the King of Prussia was officially and ostentatiously affronted by the French ambassador, Benedetti, the most peaceful citizens of Germany were ready to make the greatest sacrifices in resentment of Napoleon's insolence, and the democratic party dwindled away in the general excitement. The effect in France was similar; the King's refusal to receive the French plenipotentiary was so generally resented, that the Emperor's opposition, al-

though very strong before, disappeared at once in the almost unanimous cry for vengeance.

The social instincts, and among them the State-forming instincts, are much stronger and more deep-seated than most of us are aware of. They do not on every occasion rise into consciousness, but slumber in our hearts, and even in the hearts of our anarchists and individualists; these instincts form part of our unconscious selves and will assert their presence, if need be, even in spite of our theoretical selves, which are only superficially imposed upon our souls.

* * *

It may be objected that sometimes States have been artificially established with conscious deliberation by mutual agreements which were fixed in laws. This is quite true: conscious efforts are made and have to be made to give a solid shape to a State. The Constitutions of the United States, of Belgium, and of the German Empire are instances of this.

Conscious efforts indeed serve and should serve to regulate the growth of States; they determine the direction of its advance, and bring conflicting principles into agreement. Thus struggles are avoided, and questions which otherwise would be decided by the sword, are settled in verbal quarrels, more peacefully, quicker, and without loss of life.

When the fathers of our country came together to form a bond of union, they did not create the nation as a federal union, or, so to say, as a State of States, they simply regulated its growth and helped it into being by giving obstetrical assistance. The union agreed upon by the representatives of the thirteen colonies was not, however, the product of an arbitrary decision, but the net outcome of several co-operating factors, among which two are predominant: (1) the ideas which then lived in the minds of the people as actual realities, and the practical wants which, in the common interest of the colonies, demanded a stronger unity and definite regulations as to the methods of this unity. The representatives themselves were not mentally clear concerning the plan of the building of which they laid the foundation. The political leaders of the time (perhaps with the sole exception of Hamilton, who, on the other hand, fell into the opposite mistake of believing that a State ought to be a monarchy) were anxious to make the union as loose as possible, for they were imbued with the individualistic spirit of the eighteenth century. So they introduced (and certainly not to the disadvantage of the union!) as many and as strong bulwarks as possible for the protection of the so-called inalienable rights and liberties of individuals. The United States developed, and developed necessarily, into a strong empire, although its founders were actually afraid of creating a really strong union.

In those times it was thought that a State-administration could be strong only through the weakness of its citizens. Weakness of government was regarded as the safest palladium of civic liberties. We now know that a powerful administration is quite reconcilable with civic liberty. In fact, experience shows that weak governments, more than strong governments, in the interests of self-preservation, resort and cannot help resorting to interference with the personal rights of its citizens.

The Belgians, after having overthrown the Dutch government, shaped a new State exactly in agreement with the ideas they held. If they had not previously possessed social instincts and lived in State-relations, they would not have been able to form a new State so quickly.

The idea of a united Germany developed very slowly; it was matured in times of tribulation and gradually became quite a powerful factor in Germany's national life. The foundation of the Empire would remain unexplained, were we only referred to the debates of the Reichstag and the resolutions finally adopted. The resolutions drawn up after a longer or shorter deliberation form only the last link in a very long process of concatenations. Yet these last conscious efforts, although of paramount importance, presuppose already the conditions for the constitution of the Empire in its main features.

The existence of Empires and States does not rest upon the final resolutions passed at the time of their foundation, but upon the common will of the people, which, such as it is, has been shaped in the history of national experiences.

The United States developed in spite of the individualistic clauses of its founders; and in the same way Luther, the prophet of religious individualism, advocated principles, the further evolution of which in such minds as Lessing and Kant, he from his narrow standpoint would never have consented to. He was the harbinger of a new epoch, but he was still the son of the old theories. Like Moses, Luther led the way to the promised land, but he never trod upon its ground. His actions, more than his ideas, were the reformatory agents of his life, and we may well say now that he himself little appreciated the principles that underlay his reformatory and historical actions.

The philosophers of the eighteenth century, especially Rousseau and Kant, recognise the State only in its negative rights. The State, according to their principles, is a presumption, and its existence is only defensible as protecting the liberties of its members. The rights of the State are supposed to be negative. The liberty of each member of a society is limited by the equal amount of liberty of all the other members, and the State's duty is to protect their liberties. If this principle were the true basis of the State's right

to existence, the State would not be justified in levying taxes or in passing laws which enforce any such regulations as military or juror's service. Appropriations for the public weal would be illegal, and all executive officers would have to be regarded as a band of usurpers. As a matter of fact, States have constantly exercised their positive rights, interfering greatly with the liberties of their citizens. They have taxed them, they have passed and enforced laws. And the State could not exist without having this authority. The State is actually a superindividual power and has to be such in order to exist at all.

[TO BE CONTINUED.]

GOETHE AND SCHILLER'S XENIONS.

[CONTINUED.]

THE PHILOSOPHERS IN HADES.

THE POET SPEAKS :

Well met! I come here to question concerning the one that is needed.
That, philosophical friends, made me descend to this place.

ARISTOTLE.

Question right out, my dear sir, for we read philosophical journals,
Whatsoe'er happens on earth, we keep instructed on all.

URGENT.

Gentlemen, listen! I'll stay here until you propose me a statement
Universally true, one that we all can accept.

DESCARTES.

Cogito ergo sum: I am thinking and therefore existing.
If but the former is true, there's of the latter no doubt.

MY ANSWER.

If I am thinking, I am. Very well! But who constantly thinketh?
Often I was, I confess, when forsooth nothing I thought.

SPINOZA.

Things do exist, sir, and therefore a thing of all things is existing.
And in the thing of all things swim we just such as we are.

BERKELEY.

True is the opposite, let me declare. Besides ME there is nothing.
Everything else, you must know is but a bubble in ME.

LEIBNITZ.

Two things *are*, I admit, the world and the soul, of which neither
Knows of the other; yet both indicate oneness at last.

KANT.

Naught do I know of the thing, and naught of the soul know I either.
Both to me only appear; but by no means are they sham.

DAVID HUME.

Do not speak to those folks, for Kant has thrown all in confusion.
Me you must ask; for I am, even in Hades, myself.

FICHTE.

I am *I*, and *I* posit *myself*; but in case I don't posit
Me as myself—very well: then the NOT-ME is produced.

REINHOLD.

Surely conception exists. This proves the existence of concepts,
And of conceivers, no doubt; which altogether make three.

MY ANSWER.

Those propositions, my friends, are good for nothing I tell you;
Make me some statement that helps, and let it be to the point.

K. CH. F. SCHMIDT, THE MORAL PHILOSOPHER.

In theoretical fields, no more can be found by inquirers.
But the practical word holdeth, "Thou canst" for "Thou shalt."

MY ANSWER.

Well, I expected it so: For if they have nothing to answer,
Then these people at once will to our conscience appeal.

PHILOSOPHICAL PROBLEMS.

FOR SALE.

Since Metaphysics of late without heirs to her fathers is gathered
Here at the auctioneer's are "things of themselves" to be sold.

KANT AND HIS INTERPRETERS.

One rich man gives a living to hosts of indigent people;
Kings that are building, provide teamsters with plenty of work.

TELEOLOGY.

Worship, O man, the Creator! who while creating the cork tree
Kindly suggested the art, how we might bottle our wine.

NATURAL LAW.

Years and years I'm employing my nose; I employ it for smelling.
Now our question is this: Have I a right to its use?

PUFFENDORF.

Well! 'Tis a critical case! But possession is strong in your favor.
Since you're possessing your nose, use it in future, I say.

A MORAL PROBLEM.

Willingly serve I my friends; but 'tis pity I do it with pleasure.
And I am really vexed, that there's no virtue in me!

DECISION.

There is no other advice than that you must try to despise friends,
Then what your duty demands, you will perform with disgust.

[Kant declared that the man who performed his duty because it gave him pleasure, was less moral than he who attended to it against his own inclination.]

THEOLOGICAL HEDONISTS.

Folks who seek pleasure in all, will munch and relish ideas;
Spoons and forks will they bring up to celestial repasts.

EMPIRICISTS.

On the securest of paths you have started, and no one denies it.
But on the straightest of roads blindly you grope in the dark.

THEORETICISTS.

You are obedient to rules, and, doubtless, your well-joined conclusions,
Would prove reliable, sure, were but your premises true.

LAST REFUGE.

How disdainful you speak, how proud of the specialist's blindness!
But in emergency, *he* comes to the rescue alone.

NATURAL SCIENCE AND TRANSCENDENTAL PHILOSOPHY.

Enmity be between both, your alliance would not be in time yet.
Though you may separate now, truth will be found by your search.

THE SAME.

Both have to travel their ways, and the one should not know of the other.
Each one must wander on straight, yet in the end they will meet.

SYSTEMS.

Splendidly did you construct your grand philosophical systems;
Heaven! how shall we eject errors that live in such style.

PHILOSOPHY.

Which will survive of the many philosophies? Surely I know not!
Yet philosophy will truly, forever remain.

[TO BE CONTINUED.]

CURRENT TOPICS.

AMONG the delinquent members of Congress now absent from their posts, are Messrs. Gear, Hepburn, Lacey, and Perkins, all of them encamped about the capitol of Iowa, and working in the time-honored manner for a seat in the United States Senate. As if this were a new sign of our political degeneration instead of a very old one, my democratic paper moralises on it in this highly virtuous way: "The ravenous hunger for office which seems to be characteristic of Republicans everywhere, and particularly in the State of Iowa, was powerfully demonstrated by an incident in the congressional proceedings of Saturday." This "incident" was the absence of the said four members from roll call, "ravenous hunger for office" having driven them to Des Moines, where the Legislature is now engaged in the business of electing a senator. The ravenous hunger for office of Republicans in Iowa is not a miraculous phenomenon considering that Iowa is a Republican State, where the hunger of Democrats for office excites no sympathy in the Legislature. Should the General Assembly of Iowa elect a Democrat to anything the Supreme Court would promptly decide such action to be revolutionary and unconstitutional. Instead of reproaching the Republicans of Iowa as "ravenous" we ought to praise them for their moderation. Iowa has ten Republicans in the lower house of Congress, and only four of them are absent from duty, working for the senatorship and "sawing wood." It is a political mystery, and at the same time a sign of praiseworthy self-restraint that the whole ten of them are not at Des Moines instead of Washington.

* * *

It is worthy of contemplation that there is no ravenous hunger for office among the Republicans of Chicago, but the Democrats have a very healthy appetite, for I find the following notice in my morning paper: "After to-day, Mayor Hopkins will receive no more applications for appointments. They came in Saturday fully as strong as the day after Mr. Hopkins took his seat. There are now three thousand applications on file." This is at the rate of about four hundred a day, all Democrats, and the new postmaster can show an equal number. Not only that, the victorious legions are advancing on the Court House and the City Hall by nationalities, "te rible as an army with banners," and their motto is "offices or vengeance" as appears by the following proclamation, "The German-American Democrats are dissatisfied with their allotment of patronage by the city and county officers. Yesterday evening a meeting of the executive committee of the German-American Democratic Central Organisation was held at the Sherman House, at which resolutions were adopted appointing a committee of three which should ascertain the number of German-Americans employed in the various county offices, and the proportion they bear to the whole number of employees." Another committee was appointed to call upon Mayor Hopkins and demand the appointment of a German-American to a leading city office controlling the distribution of patronage." During a long study of American politics I have observed that a "ravenous hunger for office" always attacks the winners of the election, and that the losers are never affected by it. In fact, they show a lofty contempt for "office hunting"; they denounce the Spoils system, and enthusiastically advocate Civil Service reform.

I have received a melancholy pamphlet entitled "The Reason why the Colored American was not in the World's Columbian Exposition," and the reason appears to be nothing worth mentioning; nothing but the old race prejudice manifested in a persecution, of which slavery, lynching, chain gangs, and "Columbian" proscription are all consistent and harmonious parts. This pamphlet is "The Afro-American's contribution to Columbian Literature," and the sarcasm, though sorrowful, bites hard. There is an introduction by Frederick Douglass, eloquent, of course, and a plaintive appeal to conscience where there is no conscience, nothing but a savage pride, a tyrant sense of superiority. Although the colored people paid their share of the public money given to the Exposition, they were denied a place in its management, and this wrong diminishes the glory of the Fair. Although his action made the nation look morally diminutive, President Harrison refused to place any colored men among the two hundred and four commissioners appointed by him and authorised by Congress; and this magnanimous policy was imitated by all the other Columbian dignitaries from the commanding generals down to the subordinate captains of the Columbian guards. The spirit of caste excluded the colored people, and the only right allowed them was the privilege of paying fifty cents to see the show.

* * *

While the rights of citizenship are withheld from the colored man, he is not relieved from any of its obligations. On the contrary, more civic duties are demanded of him than are expected of the white man. Last week the colored people of Chicago held a festival to honor the abolition agitators who created a national conscience fifty years ago. Among the speakers was Mr. Stead of London, who patronised the company by tacking a few extra conditions upon their freedom.. Like a schoolmaster advising little boys, he said: "You who vote in Chicago and other northern cities should show that you know how to exercise the right of suffrage with wisdom, and that you value the privilege." Mr. Stead, as a foreigner, did not know that this bit of good advice was borrowed from the apologetic jargon of slavery which assumed that the negro was unfit for either freedom or the ballot, and which threw the burden of proving the contrary upon him. Luckily for the white man, it is not required of him that he vote "with wisdom," and why should such perfection be demanded of the colored man? Forty-five years ago, I found prevailing in the South, an ominous fear that somehow or other the negro might get "wisdom," and therefore the law made it a felony to teach him to read. In Chicago the colored man votes with as much "wisdom" as the white man, which is not saying much in his favor, but he will improve, as the white man improves, whenever he gets fair play. Considering that equal opportunities are denied them, it is amazing that the colored people show as much "wisdom" as they do; and their patience is more amazing still.

* * *

A painful bit of news from Washington tells about a breach of etiquette there that has given society a palpitation of the heart. The offence is more trying to the feelings than it might otherwise be, because two persons are implicated in it, and both delinquents are from the State of New York. Those who know anything about it are in such a state of nerves that a coherent story is not easy to be had, but the *Evening Star* of Washington, which, we are assured, is "a very reliable and conservative paper," announces with becoming grief that the President invited Senators Hill and Murphy to dine with him at the White House on Thursday evening, and that they both declined the invitations. Senator Hill was depraved enough to spend the evening at the theatre, but, says the "reliable and conservative" *Star*, "Senator Murphy's whereabouts on that evening have not been ascertained." This lack of information shows that the Washington detectives have not been vigilant, or they certainly would have tracked Mr. Murphy to his

"lair." Jenkins, the reporter who telegraphs all this from Washington, further informs us that "hitherto invitations to the President's dinner parties have been regarded as imperative, like the commands of the Queen, and etiquette has required all previous engagements to be cancelled in order to accept them." Here is a selfish rule, where etiquette violates good manners and compels a man to break an engagement and disappoint his friends to gratify the President. When the President becomes King, it will be time enough to regard his invitations as imperative, "like the commands of the Queen."

* * *

Notwithstanding the authority of Shakespeare to the contrary, there appears to be something in a name. A gentleman by the name of Hornblower, having been appointed a Justice of the Supreme Court of the United States, the nomination was referred to the proper committee of the Senate, and that committee, by a majority of six to three, recommended that the appointment be not confirmed. A Senator, in answer to a question, explained the reason for this, as follows: "It was all due to his name. I understand that the committee did not think the word 'Hornblower' would look well on the records of the court." Although this was very likely said in jest, there was a trifle of earnest in it after all. Had the appointment been to the office of chief stump-orator for the party, the name would have been valuable as a recommendation, but it was a disadvantage to a candidate for the dignified office of Justice of the Supreme Court. To be sure, the name is only an accident, but accidents are potent in the affairs of men. I have a friend, a very effective stump-speaker, who was at one time Governor of Iowa, and on the occasion of a big "rally" at Marbletown he was the "orator of the day." After some of the supernumeraries had made a few remarks, the chairman arose and said: "We will now have a tune from the band; after which we will have a speech from the Governor," whereupon the band immediately struck up "Listen to the mocking-bird." This tune is very pretty in its place, but it was inappropriate there, and the unintentional sarcasm of the band effectually baffled the argument and eloquence of the Governor. Names, as well as tunes, must fit the time and the occasion. However, in spite of his name, there is yet a chance that the nomination of Mr. Hornblower will be confirmed; but think how the name weighted him down.

* * *

In the *Nineteenth Century* for January is an article on Tyndall by Professor Huxley, the only man who knew him like a brother these forty years and more. The tribute is written in language graceful as poetry, and yet symmetrical and strong. The scientific side of Tyndall is very well known, but the full moral and spiritual strength of him was known only to his intimate friends, and Professor Huxley gives us that. Tyndall stood for truth, immovable as Mont Blanc, whose glaciers, and rocks, and storms were his own familiar friends. To him the "Revealed Word" was written in the sciences, and his translations and commentaries on that Scripture will not perish until "the great globe itself and all which it inherit shall dissolve," and there shall be no more use for commentaries. "I say once more," declares Huxley, with emphatic repetition, "Tyndall was not merely theoretically but practically in all things sincere." The value of a man of genius with qualities like that is great in any age, but how priceless was it fifty years ago, when, in the language of Professor Huxley, "the evangelical reaction, which, for a time, had braced English society was dying out, and a scum of rotten and hypocritical conventionalism clogged art, literature, science, and politics." So true was Tyndall to the lessons he learned from nature, that, and again I quote from Huxley, "he saw, in a manner, the atoms and molecules, and felt their pushes and pulls." To Tyndall, wherever he found it, a lie was a lie. It might be socially respectable, but no conventional etiquette could persuade him to give it any toleration; nor was he ever imposed upon by the homeopathic principle that a lie might be sometimes useful as a cure for some other lie. Without the advantages of high birth, patronage, or fortune, he fought his way upward against an army of errors, and the truth is clearer to us because of him.

M. M. TRUMBULL.

NOTES.

We have received from the Messrs. George Bell & Sons, of London, through A. C. McClurg & Co., "The Revelation of St. John the Divine, with Notes Critical and Practical," by the Rev. M. F. Sadler, Rector of Honiton and prebendary of Wells. (Pp. 298 Price, $1.75.) This book constitutes the last volume of the "Church Commentary on the New Testament," by Mr. Sadler. The commentaries on the four Gospels, the Acts, and the Epistles have already appeared. The notes are practical enough, but can hardly be classed as "critical."

Professor Haeckel writes us that his brochure, "Monism, A Scientist's Confession of Faith," which was discussed in No 282 of *The Open Court*, is now *polizeilich verfolgt*. The pamphlet has run through five editions in five months.

We have received from Wilhelm Engelmann, of Leipsic, a four-paged table of the integral

$$\Phi(\gamma) = \frac{2}{\sqrt{\pi}} \int_0^\gamma e^{-t^2} dt$$

compiled by Bruno Kämpfe. It is from Meyer's *Wahrscheinlichkeitsrechnung*. (Price, 60 pf.)

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A NEWLY DISCOVERED WORK BY THOMAS PAINE

BY MONCURE D. CONWAY.

London, December 27, 1893.

On this day, the hundredth anniversary of Paine's imprisonment in the Luxembourg, I am able to announce, through *The Open Court*, my discovery of a very interesting production of his. It is without date, but clear internal evidence proves it to have been begun in April or May, 1791, and concluded in July of the same year. The first part of "Rights of Man" had appeared in London March 13, 1791, and Paine's friend Lauthenas's translation appeared in May. This new document shows that Paine (then in Paris) had already begun to write his Part II (which appeared February 17, 1792), for he alludes to a point dealt with in it, and adds, "it is being considered in a work of mine now in course of composition." Several points are made which were reproduced in Part II. This paper was evidently not written for publication. It was elicited by four questions put to Paine, probably by Condorcet, though perhaps by Lafayette, as to (1) whether the basis of the Constitution was good; (2) whether the legislative and executive powers were not unequally balanced in the Constitution submitted by the National Assembly; (3) whether the single chamber of legislature was best; (4) whether the system of administration was not so complicated as to tend to anarchy. The manuscript was kept by Condorcet until 1792, when he translated it, and it was printed in the *Chronique du Mois* (May, June, July), where it has remained buried and forgotten ever since. The Rights of Man being Paine's religion, the evolution of his Quakerism, he easily answers the first question. He says:

"The basis of the Constitution being no other than the rights of man, it rests on truths so well demonstrated that they can no longer be a subject of discussion. I will merely quote and apply to those who dispute them the well-known saying, 'The fool hath said in his heart, there is no God.'"

With regard to the question relating to a balance between the executive and legislative powers, he maintains that there are really only two divisions of governmental powers: the making of laws, and their execution or administration. If they both have their source in the nation, they naturally co-operate for the national welfare.

"If any mutual invasion of these two powers be possible, it is as possible on the part of the one as of the other; and in this alternative I should deem the nation safer where an elected legislative body should possess itself of the executive, than where a non-elected executive should assume the power of making laws.

"Independently of these considerations, I own that I do not see how a government can, with any exactness, be compared to a pair of scales. What is there to balance? A balance suggests the idea of opposition. This figure of speech is, I think, borrowed from England, where circumstances had, at first, given it some appropriateness. The English government being a tyranny founded on the Norman Conquest, the nation has constantly sought a counterpoise to what it could not remove. . . . But the metaphor of a pair of scales is inconceivable in a country where all the powers of government have a common origin."

With reference to the question as to the executive being too weak, Paine affirms that the legislature is equally interested with the executive that the administration should be adequate to enforce the laws passed. The difficulty is, he thinks, that monarchical power is still attached to the idea of executive power. On the third question,—the relative advantages of the single and the bi-cameral legislature,—he offers his scheme, afterwards elaborated in "Rights of Man," Part II, for dividing the House of Representatives, by lot, into two, which are to discuss each measure separately, and vote together. One division will have the advantage of listening to the debate of the other, without being committed to either side.

On the fourth question, whether so complex an administration may not lead to anarchy, Paine thinks that most of such defects may be amended by experience, if provision be made for periodical (seven-year) revisions of the Constitution. He much prefers this definite necessity of revision to a vague and general permission of amendment. The science of government, he says, is only beginning to be studied, and experience should be steadily brought to bear on it. Here is a characteristic passage:

"I am very decided in the opinion that the sum of necessary government is much less than is generally thought, and that we are not yet rid of the habit of excessive government. If I ask any one to what extent he thinks himself in need of being governed, he gives me to understand that in his case 'a little would be enough'; and I receive the same answer from every one. But if, reversing

the question, I ask the same man what amount of government he deems necessary for another, he then answers,—'a great deal.' As that other person decides the question in the same way for everybody else, the result of all these answers is excess of government. I conclude therefore that the amount really necessary is to be found between these two. It is, namely, a little more than each wants for himself, and a good deal less than he thinks necessary for others. Excess of government only tends to incite to and create crimes which else had not existed."

This essay covers twenty-four folio pages, and I must consider the space of *The Open Court*. There is much sagacious criticism on the Constitution in question, but as that instrument soon expired, I omit that part, and quote the eloquent conclusion, which, in the perspective of a century, is a notable illustration of the rosy dawn of the Revolution that went down in blood.

"It is not impossible—nay, it is even probable,—that the whole system of government in Europe will change, that the ferocious use of war,—that truly barbarous cause of wretchedness, poverty, and taxation,—will yield to pacific means of putting an end to quarrels among nations. Government is now being revolutionised from West to East by a movement more rapid than the impulse it formerly received from East to West. I wish the National Assembly may be bold enough to propose a Convention elected by the different peoples of Europe for the general welfare of that portion of the world. Freedom for ourselves is merely happiness; it becomes virtue when we seek to enable others to enjoy it.

"A journey has prevented my finishing sooner this letter, begun more than five weeks ago. Since that time circumstances have changed in France, owing to the flight and arrestation of Louis XVI. Every successive event incites man to reason. He proceeds from idea to idea, from thought to thought, without perceiving the immense progress he is making. Those who believe that France has reached the end of its political knowledge will soon find themselves, not only mistaken but left behind, unless they themselves advance at the same rate. Every day brings forth something new. The mind, after having fought kings as individuals, must look upon them as part of a system of government; and conclude that what is called *Monarchy* is only a superstition, and a political fraud, unworthy of an enlightened people. It is with monarchy as with all those things which depend on some slavish habit of mind.

"Could we draw a circle round a man, and say to him: you cannot get out of this, for beyond is an abyss ready to swallow you up—he will remain there as long as the terror of the impression endures. But if, by a happy chance, he sets one foot outside the magic circle, the others will not be slow to follow."

Such was the man whom Washington's Minister in France managed to get imprisoned, and under the impending guillotine for ten terrible months.

Having thus given a brief account of the document, the whole of which will appear in the second volume of Paine's Works on which I am engaged, let me recall a few facts concerning his imprisonment, on the hundredth anniversary of which I am writing. Some weeks before Paine had been denounced in the Convention, of which he was a member, among other things because he would not attend its bloodthirsty sessions. This meant death. His friends, the Girondins, had all been guillotined, his English friends fled, and he was left alone in an ancient house in the Faubourg St. Denis. Knowing that he would soon be arrested, he devoted himself to the work of writing the "Age of Reason," which may thus be regarded as his dying bequest to mankind. He wrote on it night and day, and finished it in the night of December 26, 1793. On the following day the order for his arrest was issued, and on December 28 he was taken to the Luxembourg prison. In the course of the following year he was included in the list of prisoners who were to be taken before the revolutionary tribunal, which was certain death. He was ill at the time, and when the agent went through the prison corridor to mark the doors of the doomed, some physicians were with him, and his door was wide open against the outer wall. So the chalk mark was made on the inside of the door. Whether this was by connivance of some friendly official, or by accident, Paine thus escaped. These facts will add interest to the following letter, written by Sampson Perry, who was in Paris at the time, and which I have also just discovered. It has escaped all of Paine's biographers.

"Mr. Paine speaks gratefully of the kindness shown him by his fellow prisoners of the same chamber through his severe malady, and especially of the skilful and voluntary assistance lent him by General O'Hara's surgeon. He relates an anecdote of himself. An *arret* of the committee of public welfare had given direction to the administrators of the palace to enter all the prisons with additional guards, and dispossess every prisoner of his knives, forks, and every other sharp instrument; as also to take their money from them. This happened a short time before Mr. Paine's illness; and as this ceremony was represented to him as an atrocious plunder in the dregs of municipality, he determined to divert its effects so far as it concerned himself. He had an English bank-note of some value and gold coin in his pocket; and as he conceived the visitors would rifle them, as well as his trunks, he took off the lock from his door, and hid the whole of what he had about him in its inside. He recovered his health,—he found his money,—but missed about three hundred of his associated prisoners, who had been sent in crowds to the murderous tribunal, while he had been insensible of their or his own danger."

THE STATE A PRODUCT OF NATURAL GROWTH.

[CONTINUED.]

THE MODERN STATE.

The State-ideal of classic antiquity (expressed in Plato's books "On the State" and "On Laws"; in Aristotle's "Politics," and in Cicero's fragmentary essay "On the State") exhibits, alongside of a reverence for the State, a disregard for the weal of its citizens. The mediæval conception, mainly represented by Thomas Aquinas's work, "De Rebus Publicis et Principum Institutione," and also by Dante's "De Monarchia," founds the State upon the theological thesis that the government's authority is a divine institution: the last great representation of this view, in a modernised form, is Stahl's "Philosophy of Law." Against the oppressions which were sanctioned by a wrong enforcement of the absolute authority of the State arose another conception, which may be called

the State-ideal of individualism. The individualistic conception represents the State as a social contract. Its most important advocates are Hobbes, Locke, Grotius, Puffendorf, Montesquieu, and Rousseau.

It is more than doubtful whether it is possible to realise a truly individualistic State, for the most thoroughgoing individualists deny all the essential rights of States and will inconsistently have to accept anarchism. The individualistic principle, nevertheless, introduces a new element which constitutes the very nerve of the modern State-ideal.

While recognising the authority of the State to make laws, (and no law is a law unless it is, when not willingly obeyed, enforced,) we do not advocate the old view of the State which splits the nation into two discrete parts, the government and its subjects, the rulers and the ruled. The modern State-ideal differs from the old conception. It knows no rulers, but only administrators of the common will. The modern State-ideal knows no sovereign kings, emperors, or presidents; it knows only servants of the State. And this ideal of the modern State was (strangely enough!) propounded and partly practised for the first time by a monarch on the continent of Europe at a time when monarchs were still recognised as possessing absolute power. This innovator is Frederick the Great, author of the famous book "Antimachiavelli," who, although born to a throne, was conscious of the duties of the throne and scorned the arrogant pretensions of the sovereigns of his time whose poor ethical maxim had been condensed by the French king, Louis XIV, into the famous sentence, *L'état, c'est moi!*

Frederick wrote to the young King Charles Eugene of Würtemberg (1744):

> "Do not think that the country of Würtemberg is made for your sake, but the reverse; providence has made you in order to make your people happy. You must always prefer its welfare to your pleasure."

In the "Memoir of Brandenburg," 1748, he wrote:

> "A prince is the first servant and the first magistrate of the State, and it is his duty to give account to the State for the use he makes of the public taxes."

The same idea is inculcated in his last will (written 1769):

> "I recommend to all my kin to live in good concord, and if it need be to sacrifice their personal interests to the weal of the country and to the advantage of the State."

Frederick's idea does away with the personal sovereignty of rulers and makes the State itself sovereign; it abolishes rulers as such and changes them into administrators of a nation's public interests and into commissioned executors of the common will.

If this is true of monarchies, it is still more true of republics. The President of the United States is not the temporary sovereign, but the first servant of the nation, commissioned to attend to certain more or less well-defined duties.

The modern State-ideal has been matured by the individualistic tendencies of the eighteenth century. The reason is obvious: The modern State-ideal imposes the same obligations upon rulers as upon subjects, and elevates accordingly the dignity of the subject. It makes all alike subject to duty, thus recognising law simply as an expression of the superhuman world-order. Yet, although the modern State adopts the principle of individualism by recognising the inalienability, as it has been styled, of certain rights of its citizens, we cannot say that individualistic philosophers have succeeded in establishing a tenable philosophy of law or in shaping the true State-ideal either of their own times or of the future.

* * *

Rousseau, in his book "Le contract social," makes a very keen distinction between the will of all and the common will, saying that the former is dependent upon private interests, while the latter looks to the common weal. The former is only "the sum of the individual wills." If Rousseau had consistently applied this distinction to his theories, his favorite error of the social contract would have been seriously endangered.

The common will is the product of social life, it is the will of establishing the solid foundations of peaceable interrelations among the members of a community, and this will can originate even though all single individuals may attempt to escape from its enactments. There being the stern necessity of social bonds under penalty of destruction to the whole community, the common will develops as a most powerful moral feature in every single member of the tribe as a kind of tribal conscience demanding universal obedience to certain general rules or laws. All the citizens of a community may agree in this, that everybody regards himself as exempt. Such a state of affairs would make a State very unruly without, however, necessarily annihilating the common will and therewith the State itself. For, we repeat, the common will is different from the sum total of all wills; and the enactments of the common will might on the contrary be, and usually are, in such anarchical conditions, only the more severely enforced. The more the execution of the common will is assured, the more leniency is possible; the more precarious its existence, the more relentless, ruthless, and cruel have been its enactments.

* * *

The individualistic philosophy always had trouble in accounting for such facts as States and other super-individual institutions. In explaining them they always fall back upon individuals, as if the individual members of human society had first existed singly as human beings and had created their language, laws, religions,

or any other interrelations by mutual consent, by a tacit contract, θέσει not φύσει, by designing artificial plans and not in the course of a natural growth. Thus Mr. Spencer, a chief representative of individualism, explains the evolutionary origin of institutions, customs, religious dogmas, etc., as follows:

"The will of the victorious chief, of the strongest, was the rule of all conduct. When he passed judgment on private quarrels his decisions were the origin of law. The mingled respect and terror inspired by his person, and his peerless qualities, then deemed supernatural by the rude minds that had scarcely an idea of the powers and limits of human nature, were the origin of religion, and his opinions were the first dogmas. The signs of obedience, by which the vanquished whom he spared repaid his mercy, were the first examples of those marks of respect that are now called good manners and forms of courtesy. The care he took of his person, his vestments, his arms, became models for compulsory imitation; such was the origin of fashion. From this fourfold source are derived all the institutions which have so long flourished among civilised races, and which prevail yet." *

This shows a palpable misconception of the real problem. In some of these primitive States and tribal principalities a chief rules supreme and commands, in certain affairs, absolute obedience. We say "in some," not "in all" of these States, for the savage States are as different among themselves as are the States of civilised mankind. There are perhaps as many democracies in darkest Africa as absolute monarchies. Mr. Spencer's view of the origin of religion, ceremonies, and fashions, is not correct. For although a chief may be omnipotent as a commander in war, he will be unable to bring about a change of the religious ideas of his subjects. A chief's power is not the creator of the common will in a tribe which makes institutions, religion, ceremonies, and fashions, but the reverse, his power as a chief is its product. The members of the tribe obey him, because the common will enacts obedience. Mr. Spencer, accordingly, puts the car before the horse. He is blind to the real problem. Instead of explaining the authority of the chief from the common will organised in a primitive State-institution, he explains the existence of the State-institution by the authority of the chief.

Individualism ought not to be made a theory of explanation, for it is utterly incorrect and explains nothing. But while it is a wrong theory it is nevertheless a correct principle; it stands for the rights of all individuals and demands the recognition of their dignity. As a principle it is a factor, and indeed a most important one in social life. But it is not its sole principle, and we fall into confusion when we use it as an explanation of the intricate phenomena of the development of society and of the State.

The modern State-ideal, viz., the individualistic State-conception preserves the truth of the ancient and mediæval conceptions, but together with them it embodies the principle of individualism. It limits the State authority by the moral purpose imposed upon State-administrations, but in doing so, it raises it upon a higher level and sanctifies its existence.

* * *

There is a notion prevalent concerning republics, that they can replace the royal government of monarchies only by a government of majorities. It is true that most republics, including our own country, are sometimes actually ruled by a majority. If, however, the State is to be the organisation of the common will, we see at once that a majority rule cannot as yet be the highest ideal of a State. Majorities can only be called upon to decide certain questions of expediency, they have no right, either to tamper with the inalienable rights of citizens, or to twist the moral maxims upon which the State institution has been raised, so as to suit their temporary convenience, or even to pass laws that stand in contradiction to them. Laws passed by the majority may be regarded as the legislative body's present interpretation of the moral laws that underlie, like a divine sanction, the existence of the State; but upon him who is convinced that the laws are immoral, the duty devolves to use all legal means in his power to have them repealed.

The most important legal means of abolishing immoral or unjust laws is agitation, so that the *pro* and *con* of a question can be openly discussed. Says Milton:

"Whoever knew Truth put to the worse in a free and open encounter?"

Freedom of speech, freedom of the press, freedom of person are the corner-stones of free institutions. They are sacred rights which no majority government should dare to touch. The State has a right to levy taxes, provided they are justly proportioned and do not greatly exceed its necessary expenses. The State is also entitled to demand of its citizens the performance of a citizen's duties, which in times of need may grow into extraordinary sacrifices. For in cases of war we must be willing to offer even our lives for the welfare of the country. But the State has no right to pass laws in favor of certain classes, or to create monopolies, or to prescribe a peculiar kind of religious worship.

There are some questions in life, and also in the political life of nations, in which it is less important *how* they are decided, than *that* they be decided. Whether a travelling party shall take the seven o'clock train or the eight o'clock train is perhaps quite immaterial, the only requirement being that either the one or the other hour be decided upon, so that arrangements can be made that all may leave together. Such questions as whether a public enterprise should be aided

* Quoted from *"Outline of the Evolution-Philosophy."*

with one million dollars, or with two, or not at all; whether, for coast-defence, ten or twelve men-of-war should be built, etc., etc., are best decided by majority votes. They become actually right by being the pleasure of the majority. Real moral questions, however, are of a different nature. They are right or wrong, independently of majorities.

No majority vote, not even the consensus of all, can make a wrong law right. The majority can enforce bad laws, and put them into practice, but it can justify them as little as a ukase of the Czar. Even the formal legality of immoral laws may be doubted; for, even though it be the expression of the will of all, it may not be an expression of the common will, and we have learned that there is a difference between the two, and the authority of the State is founded upon the latter, not the former.

We do not intend to discuss problems of casuistry with reference to the practical politics of to-day, but we indicate that here is a field for it. There may be immoral laws which it is our duty to resist, and there are other immoral laws which it is our duty to suffer. Unequivocal questions of right or wrong are right or wrong *eo ipso*, but under special circumstances it becomes needful to have such questions endorsed by the legislative bodies, so that they shall bear upon them the stamp of legality and no wrong construction of them shall affect the order of the State. Doubtful questions of right or wrong, however, must be decided; as long as they are doubtful, they can only be decided provisionally, and we have as yet in republics as in monarchies no other means of deciding them than by a majority vote of the legal authorities. A wrong decision does not make wrong right, it only enforces it; but so long as we have no better means of testing right and wrong we must employ the insufficient method we have; we have to count votes, instead of weighing them.

The system of deciding questions by a majority vote is a mere expediency, we grant; but it is the only method of settling doubtful questions that must be settled, one way or another; and in certain public affairs it is better that such questions be wrongly settled, than not settled at all. We grant still more; we grant that this method does not prevent the passage of bad laws, and it may be very difficult to draw the line, where, for the sake of public peace, they should be obeyed, and where they should be met with resistance. This concession, however, is by no means an indictment of republican institutions and their methods; for the same objection must be made against the laws of monarchies; and in this respect monarchical State institutions have sinned in no less degree than republics. Monarchies have not only made the very same mistakes that republican authorities have made, but many additional ones, which will remain, as we hope, a peculiar feature of monarchies.

[TO BE CONTINUED.]

GOETHE AND SCHILLER'S XENIONS.

[CONTINUED.]

SCIENCE AND ART.

GENIUS A GIFT.

Born is the poet, 'tis said; and we add, the philosopher also.
For, it is certain that Truth has to be formed to be seen.

THE LAW OF NATURE.

Thus it was always, my friend, and it will be so forever, that weakness
Claims in its favor the rule, yet it is strengh that succeeds.

CREATION.

Good of the good, I declare, each sensible man can evolve it;
But a true genius, indeed, good of the bad can produce.
Forms reproduced are a mere imitation; but genius createth;
What is to others well formed, is but material to him.

DIFFERENT APPLICATIONS.

Science to one is the Goddess, majestic and lofty,— to th' other
She is the cow that supplies butter to put on his bread.

THE POET AND THE NATURALIST.

Both of us search for the truth; you without, and I in the inner
Heart of myself. And, thus, each one will find it at last.
Is clearsighted your eye, it will meet out there the Creator.
Is but healthy my heart, clearly it mirrors the world.

COLUMBUS.

Sail, O sailor courageous! Ne'er mind that the wits will deride thee.
And that thy boatswain will drop tired of his work at the helm.
Sail, O sail on for the West: There the land must rise from the ocean,
As your vaticinal mind clearly perceiveth e'en now.
Trust to the God that leads thee, and cross the mysterious ocean.
If the land did not exist, now would it rise from the deep.
Truly with genius, Nature has made an eternal alliance,
What he has promised, forsooth, she, without fail, will fulfil.

NATURE.

Myths have endowed her with life, but the schools disanimate Nature.
Yet her creatory life rational insight restores.

THE SUBLIME.

Our astronomers say, their science is truly sublimest;
Aye; but sublimity, sirs, nowhere existeth in space.

FICTION.

"What is the purpose of poetry? Say!"—By and by I shall tell you.
First of the real, my friend, tell me the purpose and use.

TRUTH AND FORM.

Truth will be mighty although an inferior hand should defend it,
But in the empire of art form and its contents are one.

FOLLY AND INSANITY.

Wit, if it foolishly misses the point, is greeted with laughter,
But when a genius slips, furious, a madman, he raves.

ONENESS.

Beauty is always but one, though the beautiful changes and varies,
And 'tis the change of the one, which thus the beautiful forms.

WISDOM AND PRUDENCE.

Will you attain, my dear friend, to the highest summits of wisdom,
Risk it and don't be afraid, should you by prudence be scoffed.
Prudence shortsightedly sees of the shores but the one that recedeth.
But she can never discern that one for which you set sail.

CRITICAL AND PERSONAL.

THE GREAT MOMENT.

This our century, verily, has produced a great epoch,
But the great moment, alas! meets with a very small race.

TO N. O. P.

'Tis a great pity, dear sirs, to espouse the right cause you are anxious,
But you are void of good sense: reason and judgment are gone.

PHRASES AND THOUGHTS.

Truly you may for a time palm off your valueless counters,
But in the end, my dear sirs, debts must be paid in good coin.

THE BROTHERS STOLBERG.

When you reviled the Olympian gods, threw angry Apollo
You from Parnassus. You now enter the heavenly realm.

[The Stolberg brothers had been liberal, but suddenly turned bigots.]

THE CONNOISSEUR.

Ancient vases and urns! Oh how easily live I without them!
But a Majolica pot maketh me happy and rich.

[The pious Stolberg, exaggerating the value of Christian art, while deprecating classic taste, said that he would give a whole collection of Greek urns for one Faience vase of Raphael.]

SENTIMENTALISTS.

Never thought I very highly of people who are sentimental.
If an occasion arrives grossly their meanness appears.

[The censure is true in its generality; but the Xenion is aimed at a man (Johann Heinrich Jung, whose *nom de plume* was Heinrich Stilling) who did not deserve this castigation.]

ARTIFICE.

Do you desire applause of the worldly as well as the pious,
Paint ye licentiousness, but—paint ye the Devil beside.

[This satirises the sensuous novels of Timotheus Hermes.]

THE PROPHET.

Pity 'tis, when you were born, that Nature created but one man!
Stuff for a gentleman is, and for a scoundrel, in you.

[A severe description of Johann Caspar Lavater.]

WOLF'S HOMER.

Seven Greek cities have boasted of being the birthplace of Homer.
Since he is torn by the Wolf, every one taketh its piece.

[Professor Wolf was the first to prove that the Iliad and the Odyssey consisted of a number of epic poems by different poets, which were collected under the name of Homer.]

A SOCIETY OF LEARNED MEN.

Every one of them, singly considered, is sensible, doubtless,
But in a body the whole number of them is an ass.

TASTE IN A WATERING PLACE.

This is a singular country; the springs here have taste and the rivers;
While it is not to be found in the inhabitants' minds.

NICOLAI.

Nothing he likes that is great; for that reason, O glorious Danube,
Nickel traces thy course till thou art shallow and flat.

[This and the following three distichs are directed against Nicolai, who was a great publisher, but at the same time a mediocre author, shallow and conceited.]

THE COLLECTOR.

War he wages against all forms; he during his lifetime
Only with trouble and pain gathered materials in heaps.

THE CRUDE ORGAN.

Can you not touch it with hands, then, O blind one, you think it chimeric!
And 'tis a pity your hands sully whatever they touch.

A MOTTO.

Truth I am preaching. 'Tis truth and nothing but truth—understand me.
My truth, of course! For I know none to exist but my own.

TO THOSE IN AUTHORITY.

Don't be disturbed by the barking; remain in your seats, for the barkers
Eagerly wish for your place, there to be barked at themselves.

[Goethe wrote this in criticism of Reichardt's praise of the French Revolution.]

THE HALF-BIRD.

Vainly the ostrich endeavors to fly: he but awkwardly saileth
When he is moving his feet over the issueless sand.

[Also directed against Reichardt.]

DILETTANTE.

Did your poem succeed in a language worked out and accomplished
Shaping your verses and thoughts, don't think its poet is you.

WANTED.

Wanted, a servant who writeth a legible hand and who also
Fairly can spell, but he must leave the *belles lettres* alone

TO AN AUTHOR.

If you impart to us that which you know, we'll be grateful to have it.
But if you give us yourself—please, my friend, leave us alone.

TO ANOTHER AUTHOR.

Please do not try to teach facts, for we care not a straw for the subject.
All we do care for are facts as they are treated by you.

[The first of these two distichs is addressed to Karl Philip Moritz, author of an interesting novel in the form of an autobiography, "Anton Reiser"; the second to F. H. Jacobi, who had written two philosophical novels, "Woldemar" and "Allwill." The difference of their natures is sufficiently characterised in the distichs.]

PUNY SCRIBBLERS.

Don't be so dainty, dear sirs. Are you anxious to heap on each other
Honors and praise, you should rail one at the other with vim.

A DISCUSSION.

One, we can hear, speaks after the other, but no one replieth.
Several monologues are, certainly, not a debate.

[Directed against Platner, whose philosophy was a declamation of platitudes. The distich is true of almost all the debates that take place in literary clubs after the reading of a paper.]

ALARMING ZEAL OF INVESTIGATION.

Gentlemen, boldly dissect, for dissection is greatly instructive.
Sad is the fate of the frog who has to offer his legs.

A FLAW.

Let but an error be hid in the stone of foundation. The builder
Buildeth with confidence on. Never the error is found.

[Very good as a general criticism. Goethe, however, was on a wrong track, when directing this distich against Newton's theory of color.]

IN COMPARISON WITH SOCRATES.

Pythia dubbed him a sage for proudly of ignorance bragging.
Friend, how much wiser art thou? What he pretended, thou art.

NATURE AND MORALITY.

MISREPRESENTED.

Nature is holy and healthy! Yet moralists pillory Nature.
Reason's divinity is vilely by bigots debased.

ENTHUSIAST AND NATURALIST.

Had you the power, enthusiasts, to grasp your ideals completely,
Certainly you would revere Nature, for that is her due.
Had you the power, Philistines, to grasp the total of Nature,
Surely your path would lead up to ideal domains.

NATURE AND REASON.

Reason may build above nature, but finds there emptiness only.
Genius can nature increase; but it is nature it adds.

PHILOSOPHER AND BIGOT.

While the philosopher stands upon earth, eyes heavenward raising.
Bigots lie, eyes in the mud, stretching their legs to the skies.

OUR DUTY.

Always aspire to the whole, and can you alone independent
Not be a whole of yourself, serve as a part of the whole.

FRIEND AND ENEMY.

Dear is the friend, whom I love; but the enemy, too, is of value.
Friends have encouraged my skill, enemies taught me the ought.

MOTIVES AND ACTION.

"God only seeth the heart!"—Since the heart can be seen by God only,
Friend, let us also behold something that is not amiss.

DISTINCTION.

There's a nobility, too, in the empire of morals. For common
Natures will pay with their deeds, noble ones by what they are.

PERFECTION.

No one resemble the other, but each one resemble the Highest!
How is that possible? Say! Perfect must ev'ry one be.

GOODNESS AND GREATNESS.

Only two virtues exist. O, would they were always united!
Goodness should always be great; greatness should always be good.

[TO BE CONCLUDED.]

CURRENT TOPICS.

A VERY interesting convention composed of dairymen from different parts of the country, is now in session at Chicago, and its purpose is to organise a Dairymen's National Protective Union. It is intended to be a sanitary and patriotic society, not for the benefit of the members, but for the protection of the people against the appetite for oleomargarine. Adopting the ethics of all such "Unions," the dairymen "want a law passed" for the suppression of a rival industry, and for "the encouragement of high grade dairy products." Although, at the demand of the dairymen, oleomargarine has been branded by the State Legislatures, and a tax put on its head by Congress, it still gets a good deal of patronage from the laboring classes, who are not able to buy "high grade dairy products." In spite of hostile taxes, the sale of oleomargarine has increased and is increasing, for the president of the National Dairymen complained of the "constantly increasing manufacture and sale of bogus butter and oleomargarine"; and he urged action that would "put an end to the traffic." In a like benevolent spirit, the National Wool Growers' Association "wanted to have a law passed" that would "put an end to the traffic in shoddy." It does not yet appear to the National Dairymen that a man eats butterine because he cannot afford to buy butter; nor to the National Wool Growers that he wears a shoddy coat because he cannot afford to wear clothing made of wool. The organisation of a Dairymen's Protective Union comes at an opportune time; because, in Chicago at least, the people are profoundly thinking of combining themselves into a Protective Union against the dairymen.

* * *

Last week I spoke of the ravenous raid made upon the new Mayor by the brigade of patriots who called upon him to demand the fulfilment of "election promises." Since then, the siege of the City Hall has been pressed with so much vigor that the Mayor has been compelled to evacuate it, and he has retreated to some secret citadel where he is hiding himself away. As the papers express it this morning, "Mayor Hopkins has been driven from the City Hall. The pressure of the office-seekers has become so strong that the Mayor could not stand before it." His retreat is known only to himself and his private secretary, "who bobbed in and out of the City Hall all day. Each time he went to the Mayor's office he took some roundabout way which baffled the attempts of the enterprising and unrewarded politicians who hoped to search out the Mayor by following his private secretary." From a military point of view the strategy of the Mayor appears to be well planned, but it will avail him nothing, even though he should hide himself on Selkirk's Island. Had Robinson Crusoe been an American civil officer of high rank, with "patronage" to give, he would not have enjoyed the solitary quietness of his island for twenty-eight years. The office-hunters would have discovered him in twenty-eight days; and as for Mayor Hopkins, he will not be hidden for twenty-eight hours. It is dollars to cents that he will be tracked to his hole in the ground as easily as the foxhounds find a fox.

* * *

To a man fond of luxurious religion, the following advertisement sent by a correspondent to the *St. James's Gazette* is as tempting as venison was to the friar of orders gray. "Church Preferment.—A valuable living for sale in the suburbs of London. Sale urgent. Prospect of early possession. Net income nine hundred pounds. Light work. The best society. Practically no poor. Beautiful modern church." Here is offered for sale a fine opportunity to serve the Lord with comfort, and get for the service nine hundred pounds a year. I wonder what the Twelve Apostles would have thought of such a bit of "church preferment," even supposing that any of them had money enough to buy it, which, excepting Matthew, it is likely none of them had. If life is worth living at all, this particular "living" is properly described as "valuable," and as the sale is "urgent" and the market rather dull, the "preferment" may no doubt be had at less than the usual rates for property of that kind. The religious hope that the present incumbent will soon die is gracefully thrown into the bargain as a "prospect of early possession," but this cheerful promise is not at all to be relied on, for longevity is very conspicuous in clergymen whose beneficies are coveted by men who have bought them in expectancy. I knew a case of that kind—in the suburbs of London, too—where the incumbent whose early death had been stipulated for, obstinately refused to die. The patron of the living being reproached by the purchaser of it for selling the "prospect of early possession," excused himself by saying, "Well, he had a bad cough and three doctors, and I was not expecting miracles." This old parson held on to his "living" for more than twenty years after that, and died at the age of ninety-three.

It is related of a bishop of London who was dying, that he called his servants to bid them farewell, and one of them, thinking to comfort him, said: "Your Lordship is going to a better place." "No, John," said the bishop, "there is no better place than old England." He was right; there is no better place than old England—for a bishop, or for the incumbent of that "living" in the suburbs of London, advertised above. Think of it, nine hundred pounds a year and "light work"; hardly anything to do, because as the parishioners belong to "the best society," their souls are already cured. Then, the pleasure of preaching in a "beautiful modern church," not a cold stone temple of the Gothic-rheumatic order, but a warm and well-ventilated house of worship, whose plush and mahogany give to the eucharist itself a fashionable tone! The spiritual delights of this coveted "living" would be very much impaired should Lazarus happen to call at the parsonage and sit on the steps; but, luckily for the parson, in that parish there are "practically no poor." I should like to know whereabouts in the suburbs of London that blessed paradise is. I have never found it, although those delectable suburbs are very familiar to me. A minister of the gospel who keeps the sacraments for the rich, may have a delightful time of it here below, but he will not wear a very dazzling halo up above, and I fear that when he tries to enter the celestial gates, he may be sent by St. Peter down to the lower dominions, where there are "practically no poor."

* * *

The tone and temper of the speeches made in Congress justify the opinion that the members would make excellent foot-ball players; and a game between the Democrats on one side and the Republicans on the other would be very delightful—to the spectators; that is, if the honorable members worked their hands and feet as viciously as they exercise their tongues. A day or two ago, a member of the House classically alluded to the President of the United States as "the stuffed prophet of Buzzard's Bay"; and another, at the end of an exciting and vociferous "touch-down," said, "I have done up the Tammany tiger, and I'd like to tackle the Kansas gopher." The tiger was Mr. Cochran, and the gopher was Mr. Simpson. Those complimentary arguments are very much in the style of the college debating-club, where the undeveloped youngsters learn statesmanship by the aid of object-lessons, as our members of Congress do. Last week Mr. Simpson, in order to show the difference between woolen goods and shoddy, found it necessary to display an old coat for the instruction of the members, and he tore it up in the presence of an awe-stricken assembly, in order to show how frail and feeble its texture was. Imitating the "gentleman from Kansas," Mr. Bowers, of California, pleading for a high tariff on raisins, actually distributed raisins among the members, as if their minds were too feeble to comprehend the argument without help from the visible subject of it, raisins. The report of the debate informs us that "there was great scrambling among the members, especially on the Democratic side, and soon half the House was complacently munching the fruit." Mr. Bowers thought that he might convince the appetite, if he could not enlighten the mind.

* * *

In his admirable essay on Tyndall, which appeared in *The Open Court* last week, Mr. Moncure D. Conway refers to the famous "prayer gauge" proposed by Tyndall several years ago, and rejected, curiously enough, by the very persons who not only believe in prayer, but who actually pray for health, wealth, rain, sunshine, good crops, good luck, and hundreds of other things. While I do not believe that prayer can have any effect on the laws of the material universe, I am not at all certain that as a subjective stimulant a prayer for virtue may not help to make a bad man good; and, perhaps, by the same quality, it may help to make a sick man well. "The challenge," remarks Mr. Conway, "was wrathfully declined by the churches, but it had its effect." That the challenge was wrathfully declined by the churches is astonishing, because the prayer-test is frequently mentioned in the Bible, and, according to the Scriptures, many important theological disputes were decided by wager of prayer. Of this, the victory won by Elijah over the prophets of Baal at Mount Carmel is a memorable example. Besides, in England and America the "prayer gauge" is recognised and established in the laws appointing chaplains, whose official duty it is to pray. In his Thanksgiving proclamation, Governor Waite of Colorado prayed for the free coinage of legal-tender silver at a ratio of 16 to 1, and at this very moment the prayer-test is called upon to settle the differences in the Legislature of that State. Here is what appears in the dispatches of yesterday from Colorado: "In the Senate this afternoon Parson Tom Uzzel prayed that there may be a giving way; and that the deadlock stopping legislation and causing a great deal of criticism may be lifted soon." All other agencies having failed, let us hope that the prayers of Parson Tom Uzzel may prevail.

M. M. Trumbull.

NOTES.

Monday next, the twenty-ninth of January, will be the one hundred and fifty-fourth birthday of Thomas Paine. Our readers will find Mr. Moncure D. Conway's article in the present number very appropriate reading on this occasion.

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SUFFRAGE A NATURAL RIGHT.

BY ELIZABETH CADY STANTON.

The significance of suffrage and the power of the ballot have been idealised by statesman, poet, and artist alike, each in his own way. In the heated discussions on the enfranchisement of the Southern Freedmen, Charles Sumner, on the floor of the Senate, said:

"The ballot is the Columbiad of our political life, and every citizen who holds it is a full-armed monitor."

In the early days of the anti-slavery and temperance struggles, in urging reformers to use their political power at the polls to accomplish their objects, the Rev. John Pierpont said of the ballot:

"A weapon that comes down as still
As snow-flakes fall upon the sod;
But executes a freeman's will
As lightning does the Will of God."

At the birth of the third French Republic, in one of the open squares in Paris a monument was raised to commemorate the advent of universal suffrage. The artist had carved various designs and mottoes on three sides of the shaft, and on the fourth stood a magnificent lion, his paw on the ballot-box, with a sphinx-like questioning look as to the significance of this new departure in government. He seemed to say, the sacred rights of humanity represented here I shall faithfully guard against all encroachments while the Republic stands.

In our Republic to-day the social, civil, political, and religious rights of sixty-five millions of people all centre in the ballot-box, not guarded by a royal lion, but by the grand declarations of American statesmen at the foundation of our Government. In their inspired moments they sent their first notes of universal freedom echoing round the globe in these words: "All men are created equal." "All just governments derive their powers from the consent of the governed." "Taxation without representation is tyranny."

These are not glittering generalities, high-sounding platitudes with no practical significance, but eternal truths, on the observance of which depend the freedom of the citizen and the stability of the State. The right of suffrage is simply the right to govern one's self, to protect one's person and property by law. While individual rights, individual conscience and judgment are the basic principles of our republican government and Protestant religion, singularly enough some leading politicians talk of restricting the suffrage, and even suggest that we turn back the wheels of progress by repealing the fourteenth and fifteenth amendments, that charter of new liberties, irrespective of race, color, and previous condition of servitude. It is well for such as these to consider the origin of rights.

In the early history of the race, when every man exercised his natural right of self-protection with the free use of the sling and the bow and arrow, it would have been the height of tyranny to deprive him of the rude weapons so necessary for his defence. It is equally cruel in civilised government to deprive the citizen of the ballot, his only weapon of self-defence against unjust laws and self-constituted rulers.

In the inauguration of government, when men made compacts for mutual protection and surrendered the rude weapons used when each one was a free lance, they did not surrender the natural right to protect themselves and their property by laws of their own making, they simply substituted the ballot for the bow and arrow.

Would any of these gentlemen who think universal suffrage a blunder be willing to surrender his right, and henceforth be subject to the popular will, without even the privilege of a protest?

Does any thoughtful man really believe that he has a natural right to deprive another of the means of self-protection, and that he has the wisdom to govern individuals and classes better than they can govern themselves? England's experiment with Ireland, Russia with Poland, the Southern States with Africans, the Northern States with women, all prove the impossibility of one class legislating with fairness for another.

The bitter discontent and continued protests of all these subject classes, are so many emphatic denials of the right of one man to govern another without his consent. Forbidden by law to settle one's own quarrels with the rude weapons of savage life, and denied their substitute in civilisation, the position of the citizen is indeed helpless, with his rights of person and property wholly at the mercy of others.

Such is the real position of all citizens who are denied the right of suffrage. They may have favors

granted them, they may enjoy many privileges, but they cannot be said to have any sacred rights.

But we are told that disfranchisement does not affect the position of women, because they are bound to the governing classes by all the ties of family, friendship, and love, by the affection, loyalty, and chivalry that every man owes his mother, sister, wife, and daughter. Her rights of person and property must be as safe in his hands as in her own. Does woman need protection from the men of her own family?

Let the calendars of our courts and the columns of our daily papers answer the question. The disfranchisement of woman is a terrible impeachment of the loyalty and chivalry of every man in this nation. How few have ever penned one glowing period, or cast one vote for woman's emancipation.

Speaking of class-legislation, George William Curtis said:

> "There is no class of citizens, and no single citizen, who can safely be intrusted with the permanent and exclusive possession of political power. It is as true of men as a class, as it is of an hereditary nobility, or of a class of property-holders. Men are not wise enough, nor generous enough, nor pure enough to legislate fairly for women. The laws of the most civilised nations depress and degrade women. The legislation is in favor of the legislating class."

Buckle, in his "History of Civilisation," says:

> "There is no instance on record of any class possessing power without abusing it."

And even if all men were wise, generous, and honorable, possessed of all the cardinal virtues, it would still be better for women to govern themselves, to exercise their own capacities and powers in assuming the responsibilities of citizenship.

Whenever and wherever the right of suffrage has not proved beneficial, it has not been because the citizen had too many rights, but because he did not know how to use them for his own advantage.

We are continually pointed to the laboring masses and the Southern Freedmen to show the futility of suffrage. If our campaign orators in all the elections would educate the masses in the principles of political economy, instead of confusing them with clap-trap party politics, they would better understand their true interests and vote accordingly. Instead of repealing the fourteenth and fifteenth amendments, multiply schools, teachers, lecturers, preachers in the South and protect the freedman in the exercise of his rights. Our mistake in the South, when we had the power, was not in securing to the blacks their natural rights, but in not holding those States as Territories until the whites understood the principles of republican government and the blessings of individual freedom for others as well as themselves.

George William Curtis says:

> "There is no audacity so insolent, no tyranny so wanton, as the spirit which says to any human being, or to any class of human beings, 'you shall be developed just as far as we choose, and as fast as we choose, and your mental and moral life shall be subject to our pleasure'!"

John Stuart Mill says:

> "There ought to be no pariahs in a full-grown and civilised nation; no persons disqualified except through their own default. . . . . Every one is degraded, whether aware of it or not, when other people, without consulting him, take upon themselves unlimited power to regulate his destiny. No arrangement of the suffrage, therefore, can be permanently satisfactory in which any person or class is peremptorily excluded; in which the electoral privilege is not open to all persons of full age who desire it."

The distinctions lexicographers make between the elective franchise and suffrage, mark the broad difference between privileges and rights. While suffrage recognises the natural rights of the individual, the elective franchise recognises privileged classes. It is these contradictory definitions, of phrases some construe to mean the same thing, that has given rise to the theory that the suffrage is a political privilege.

Gratz Brown eloquently said, on the floor of the Senate in that memorable discussion on the District Columbia Suffrage Bill.

> "Let this idea of suffrage as a political privilege that the few may extend or withhold at pleasure, crystallise in the minds of our people, and we have rung the death knell of American liberties."

The philosophy of suffrage covers the whole field of individual and national government. For the former it means self-development, self-protection, self-sovereignty. For the latter it means a rule of majorities: "the censensus of the competent," the protection of the people in all their public and private interests. I have always taken the ground that suffrage is a natural right, the status of the citizen in a republic is the same as a king on his throne; the ballot is his sceptre of power, his crown of sovereignty.

Whenever and wherever the few were endowed with the right to make laws and choose their rulers, the many can claim the same origin for their rights also. We argue the rights of persons from their necessities. To breathe, sleep, walk, eat, and drink, are natural rights, necessary to physical development. So the right to think, express one's opinions, mould public sentiment, to choose one's conditions and environments, are necessities for psychical development.

By observation, we decide the wants of animals, what they can do, their degree of intelligence and treat them accordingly. So in the study of human beings, we see their wants and needs, their capacities and powers and from their manifestations, we argue their natural rights. Children early show a determination to have their own way, a natural desire to govern themselves. Whoever touches their playthings without their consent arouses their angry resistance, show-

ing the natural desire to own property. From these manifestations in the human family, at all ages and in all latitudes, we infer that self-government, the protection of person and property against all encroachments, are natural rights.

Individual freedom comprises freedom in all departments of nature, the acknowledgment for every man of the full, free use of all his faculties. But it is the failure on the part of one individual to accord to others what he demands for himself, that causes the conflicts and disputes on all subjects. Each person strongly individualised maintains that his theories and line of action must be right, and those who differ from him necessarily wrong. Here comes in the great enemy of individual freedom: "the love of domination"; the strong hereditary feature of our animal-descent, which prevents the harmonious development of the oppressor as well as the oppressed.

The true use of this love of domination is in governing ourselves. Every person given to introspection is conscious of contending elements in himself, some urging him to the highest moral rectitude, under all circumstances, others tempting to a narrow selfish egoism to exalt one's self at the expense of his fellows. Here is the legitimate use of domination to control the evil in ourselves. As the chief business of life is character-building, we must begin by self-discipline, as thus only can we secure individual freedom. It is more hopeless to be the slave of our own evil propensities, than to be subject to the will of another.

This love of domination is the most hateful feature of human nature, antagonistic alike to the freedom of the individual and the stability of the State. Just as the love of domination retards the development of the individual, so it prevents the realisation of republican principles in government. Could this power find its legitimate exercise on the vices and crimes of society, on the fraud and corruption in high places, it would no longer be a dangerous element, but most beneficent in its influences and far reaching consequences on civilisation.

Herbert Spencer speaking of the nature of a new social science, says:

> "It is manifest that so far as human beings, considered as social units, have properties in common, the social aggregates they form will have properties in common; so that whether we look at the matter in the abstract or the concrete, we reach the same conclusion. And thus recognising both *a priori* and *a posteriori*, these relations between the phenomena of individual nature, and the phenomena of incorporated human nature, we cannot fail to see that the phenomena of incorporated human nature form the subject-matter of a science."

In other words, the manifestations of the individual and of organised society being the same the interests of the individual and society lie in the same direction. We often hear of the necessity of sacrificing the individual to society, but no such necessity exists, as the rights of the individual and the citizen have the same origin and their public and private interests demand the same protection.

Individual freedom and self-government, citizenship and suffrage are synonymous. In demanding their own enfranchisement, have women been pursuing a shadow the last half century? In seeking political power do they abdicate that social throne where their influence is said to be unbounded?

No, no, the right of suffrage is not a mere shadow, but a substantial entity, that the citizen can wield for his own protection and his country's welfare. An individual opinion, counted on all questions of public interest is better than indirect influence, be it ever so far-reaching. Though influence, like the pure white light, is all-pervading, yet it is ofttimes obscured with passing clouds and nights of darkness;—like the sun's rays it may be healthy, genial, inspiring, though sometimes too direct for comfort, too oblique for warmth, too scattered for any given purpose. But as the prism by dividing the rays of light reveals to us the brilliant coloring of the atmosphere, and as the burning-glass by concentrating them in a focus intensifies their heat, so does the right of suffrage reveal the beauty and power of individual sovereignty in the great drama of national life,—while on a vital measure of public interest it unites the many voices of the people in a grand chorus of protest or applause.

THE AUTHORITY OF THE STATE AND THE RIGHT TO REVOLUTION.

The existence of a common will in a tribe is a fact, and the existence of the State, as the consciously organised common will of a certain society, is also a fact. The question, however, arises, Is this power a usurpation? Is it not perhaps an unjustifiable and odious tyranny? And if it is to be recognised as a legitimate power, on what authority does it rest?

The old explanation of State authority is the Tory explanation, that royalty exists by the grace of God. The latest and perhaps (in Protestant countries, at least) the last defender of the Tory system was Friedrich Julius Stahl (born in 1802 of Jewish parentage, baptised in 1819, called to the University of Berlin in 1843 by the King of Prussia, Frederick William IV., became the leader of the ultra-conservative party 1848–1861, the year of his death; his main work was "Die Philosophie des Rechts," 3 vol.)

Stahl's criticism of the old *jus naturale* is poor; his Jewish-Christian conceptions of a supernatural revelation prevented him from seeing the truth, which in spite of some errors was contained in that idea of clas-

sic antiquity. His famous demand of "Die Umkehr der Wissenschaft," (viz., that science should return) is a sin against the Holy Ghost, who reveals himself in the progress of science. Rejecting the view of the ancients concerning the authority of the State, he founded it upon God's ordinance. The State, according to Stahl, is *Gottes Weltordnung*; it is a human institution founded upon divine authority; it is the establishment of a moral empire.

Stahl is a reactionary thinker; State authority (*Obrigkeit* or *Staatsgewalt*), according to his view, stands absolutely opposed to the idea of popular sovereignty; the former represents the idea of legitimacy, the latter the principle of revolution. Stahl stood in conscious and outspoken opposition to the doctrine of Frederick the Great, in whose conception the sovereign had become a mere servant of the State. Stahl sees in the sovereign a representative of God; the sovereign rules over his subjects, whose sole business it is to obey. These are antiquated ideas, to refute which is almost redundant in Anglo-Saxon countries, the institutions of which are established upon successful revolutions. Stahl was a genius of great acumen and profound philosophical insight, yet his face was turned backwards, and so he had not the slightest inkling of the ideal State, which, it appears to us, it is the duty of the Anglo-Saxon races to realise.

Stahl is right, however, in so far as he maintains that the State is actually the realisation of a moral empire. That is to say, the State is, as the Roman sages thought, based upon the *jus naturale*; it is a natural product of evolution, and as such it reveals the nature of that All-power, which religious language hails by the name of God.

When we speak of God, we must be careful in defining what we mean, for it may either be an empty phrase or the cover under which oppressions mask their schemes for usurping the power of government.

When we grant that the State is a divine institution, we mean that its existence is based upon the unalterable laws of nature. All facts are a revelation of God; they are parts of God and reveal God's nature; but the human soul and that moral empire of human souls called the State are more dignified parts of God than the most wonderful phenomena of unorganised nature.

It is customary now to reject the idea of *jus naturale* as a fiction, to describe it as that which according to the pious wishes of some people ought to be law, so that it appears as a mere anticipation of our legal ideals appealing to the vague ethical notions of the people. Law, it is said, is nothing primitive or primordial, but a secondary product of our social evolution, and the intimation of a *jus naturale* is a fairy-tale of metaphysics, which must be regarded as antiquated at the present stage of our scientific evolution. It is strange, however, that those who take this view fall back after all upon nature as the source of law; they derive it from the nature of man, from the natural conditions of society, and thus reintroduce the same old doctrine under new names—only in less pregnant expressions. Most of these criticisms are quite appropriate, for there is no such thing as an abstract law behind the facts of nature; no codified *jus naturale*, the paragraphs of which we have simply to look up like a code of positive law. In the same way there are no laws of nature; but we do not for that reason discard the idea and retain the expression. If we speak of the laws of nature, we mean certain universal features in the nature of things, which can be codified in formulas. Newton's formula of gravitation is not the power that makes the stones fall; it only describes a universal quality of mass concisely and exhaustively. In the same way the idea of a *jus naturale* is an attempt to describe that which according to the nature of things has the faculty of becoming law. The positive law is always created by those in power; if their formulation of the law is such as would suit their private interests alone, if for that purpose they make it illogical or unfair to other parties, it will in the long run of events subvert the social relations of that State and deprive the ruling classes of their power; in one word, being in conflict with the nature of things it will not stand. If, however, the codification of rights properly adjusts the spheres of the various interests that constitute society, if it is free of self-contradictions and irrational exceptions, it will stand and enhance the general prosperity of society. The former is in conflict with the *jus naturale*, the latter in agreement with it.

Thus we are quite justified in saying that the positive law obtains, while the natural law is that which ought to obtain; the positive law has the power, the natural law the authority; and all positive law is valid only in so far as it agrees with the natural law; when it deviates from that, it becomes an injustice and is doomed.* In a word, the *jus naturale* is the justice of the positive law and its logic. That its formulation is not directly given in nature, and that it is difficult to comprehend it in exact terms, must not prevent us from seeing its sweeping importance. If there were no such constant features in the nature of society which are the leading motives of all the historical evolutions of the positive law, our conceptions of right and wrong would have to be regarded as mere phantoms, and our ideal of justice would be merely a dream.†

* See Jodl's lecture *Ueber das Wesen des Naturrechtes*, Wien, 1893.

† The problem is at bottom the same as the problem of reason, of logic, arithmetic, and all the formal sciences. There have been people who think that the world-reason is a personal being who permeates the world and inserts part of his being into rational creatures. In opposition to them, other philosophers deny the existence of a world-reason and declare that human reason is

There are wrong conceptions of the *jus naturale*, but there is also a right conception of it. In the same way there are pagan conceptions of Christianity and there is a purified conception of it. Stahl did not see that the true conception of the *jus naturale* is the same as the purified conception of Christianity. For the purified conception of Christianity is monistic; it regards natural phenomena as the revelations of God, and the voice of reason as the afflatus of the Holy Ghost.

The State is a human institution, but *as such* it is as divine as man's soul; the State should not consist of rulers and ruled subjects, but of free citizens. And yet we must recognise the truth that the State is a superindividual power, and that the laws of the State have an indisputable authority over all its members.

* * *

When we say the State is divine, we do not mean to say that all the ordinances of government are, *a fortiori*, to be regarded as right. By no means. We might as well infer that because man's soul is divine all men are saints, and their actions are *eo ipso* moral. Oh, no! The State institution, as such, and the human soul, as such, are divine; they are moral beings and more or less representative incarnations of God on earth.

The State is truly, as Stahl says, a moral empire, or, rather, its purpose is the realisation of a moral empire on earth. The State is, religiously speaking, God's instrument to make man more human and humane, to bring him more and more to perfect himself, and to actualise the highest ideals of which he is capable. But the State of Stahl's conception can beget a bastard morality only; it represents the ethics of the slave, which consists in obedience; it does not represent the ethics of the children of the free, which alone can develop true and pure morality.

The State, in order to become a moral empire, must recognise the rights of the individual and keep his liberty inviolate.

The principle of individualism arose out of a revolt against the principle of suppression. The individualistic movement is a holy movement, beginning with Luther, represented by Kant, but breaking down in its one-sided application in the French Revolution. Individualism is the principle of the right to revolution, but the right to revolution is a religious right; it is a duty wherever tyranny infringes upon the liberty of its subjects, wherever it interferes with the natural aspiration of citizens for higher ideals, and wherever it prevents progress.

The old governments were class-governments. We cannot investigate here the extent to which this state of things was a necessary phase in the evolution of the State; but we maintain that the breakdown of these forms was an indispensable condition to a higher advance. The old State consists in the organisation of governments with subjects to be governed, the new State is the organisation of free citizens to realise the ideal of a moral community.

The old State is based upon the so-called divine right of kings, an organisation of a few rulers or of the ruling classes. The new State must be the organised common will of the people; and its authority is the divinity of the moral purpose which this common will adopts. The government should not do any ruling or mastering, the government should simply be an administration of those affairs which the common will, for good reasons, regards as public.

The ideal of the new State can be put into practice only where the common will is animated by a common conscience; and this common conscience should not be a tribal conscience justifying every act that would be useful to, or enhance the power of, this special people as a whole: the common conscience must be the voice of justice; it must recognise above the State-ideal the supernational ideal of humanity, and must never shrink from acting in strict accordance with truth and the fullest recognition of truth.

If the State is to be based exclusively upon the principle of individualism, the State will break down, but if the State is recognised as an embodiment of the moral world-order, it will adopt the principle of individualism as a fundamental maxim, for without liberty no morality. The slave has no moral responsibility, the free man has.

From these considerations we regard the principle of individualism as the most sacred inheritance of the revolutionary efforts of mankind, which, becoming victorious in Luther's time, still remain so. We do not reject the truths of former eras: on the contrary, we prove all things, and, discriminating between the evil and the good, we keep that which is true. In preserving the ancient idea that the State is founded upon the immutable order of nature, and the Christian idea that the purpose of the State is the realisation of moral ideals, we avoid the one-sidedness and errors which naturally originate when a man in controversy, as a method of effectually resisting his adversary, denies that there is any truth at all in his opponent's views, and out of mere spite indiscriminately opposes all his propositions.

of a purely subjective origin, an artificial makeshift, a secondary product of very complex conditions. We regard both parties as partially right and partially wrong; we say: There are certain immutable features in the relations of things, which, in their various applications, can be formulated in logic, arithmetic, geometry, and all the other formal sciences. Thus, human reason is after all a revelation of the world-reason. The world-reason, it is true, is no personal being, yet does it exist none the less; being a feature of facts, it possesses an objective reality. Its formulation is an abstract concept of the human mind, but, with all that, it is not a mere fiction, a vain speculation, or an aberration from the truth.

CURRENT TOPICS.

The National Farmers' Alliance met in convention yesterday and passed the customary set of resolutions. The National Farmers, in the same patriotic spirit that animated the National Dairymen and the National Woolgrowers, "wanted a law passed," but they wanted it for the protection of the people against the adulteration of food and food products. The self-devotion shown in this demand is greatly to be praised, for if such a law should be rigidly enforced, it might go hard with some of the National Farmers. There must have been some humorous fellow on the Resolutions Committee, for after "demanding" about a dozen impossible things, the platform "favors a course of reading for farmers on the Chatauqua plan." In that resolution there is irony enough to make a plough, but nevertheless, the resolution is a good one, and if the Chatauqua plan should for any reason fail, the National Farmers will find themselves benefited by a course of reading on any earthly plan whatever. After demanding miraculous money "with stability as well as flexibility, and with value as well as volume," the National Farmers called for a greater miracle still, the resignation of his office by Mr. Sterling Morton, the Secretary of Agriculture. Perhaps the most imbecile failure to be found in American politics is a resolution asking a man to resign such an exceedingly good thing as a seat in the Cabinet with a good salary for himself and unlimited garden-seeds to distribute among his friends. National Farmers who know so little about the genius of American politics as to expect that the lucky incumbent of such an office will resign it at their invitation, cannot apply themselves too soon to "a course of reading on the Chatauqua plan."

* * *

All other means of relieving the garrison having failed, the "small-pox" alarm was turned in to frighten the legions of office-hunters and compel them to raise the siege of the City Hall. It availed nothing, and now the postmaster is trying another plan to scare away a similar host of besiegers from the post-office. He is trying to make it appear that men who accept a place in the post-office rush into mortal danger. He has had the atmosphere of the building analysed by expert chemists, and the report they make, though not so loud, is more alarming than guns in battle. They find "an excess of carbon dioxide in the air, and the amount of dust was marked." The experiments were made at the most favorable time, when the air was unusually pure, but in spite of that, the report says, "In the basement the amount of dust was most marked, and Petri dishes four inches in diameter that were exposed here for three minutes showed 350 bacteria to have fallen upon them, while the amount of carbon dioxide estimated in parts per 10,000 was 12·28." In some other parts of the building the bacteria were still more numerous, and the carbon dioxide thicker. Up to the present moment this poisonous report has made no impression on the applicants for office; and one of them having been assured that there were 15,000 bacteria in every cubic inch of the post-office, replied with reckless hardihood, "Well, I can stand it if the bacteriers can. Work may be dangerous in the post-office or anywhere else, but it is not so dangerous as idleness."

* * *

In the dialogue between the grave-diggers in Hamlet, one of them says to the other, "He that is not guilty of his own death shortens not his own life." Doubtful of this, the second grave-digger says, "But is this law?" And to that his companion answers, "Ay, marry is't, crowner's quest law." This answer appears to be logically sound, but the question is up again, not in Denmark this time, but in the State of New York, where the grand jury has just indicted the leaders of several Christian science societies. "The occasion of the indictments," as we are informed by the newspapers, was "the death of a woman while under the care of Christian scientists. She had been without the services of a regular physician. The coroner's jury denounced the individuals whom she had engaged to treat her, and later the grand jury made out several indictments." This new application of "crowner's quest law" will now be tested in the courts, and we shall soon find out whether or not we can lawfully die without the assistance of a "regular physician." It is rather curious that when a man dies under metaphysical treatment the coroner is called in, but when he dies from "regular" physical medicine no surprise is manifested and no "crowner's quest" is held. It is a strange anomaly that the faith-healers have been indicted in the State of New York, for in that State the people are supposed to know the dangers of the "regular" practice. Some time ago, Dr. Charles C. Bombaugh of Baltimore delivered a lecture before the New York Academy of Medicine, in which he said: "Of the eleven thousand medicaments on the list, it would be quite safe to dispense with ten thousand. And as to the remaining one thousand, most of us would still find on the roll a sufficient surplusage of sawdust to 'make the judicious grieve.'" This confession was frank enough, but not prudent; because if those ten thousand pretended remedies are injurious and may safely be dispensed with, may not the doctors who prescribe them be dispensed with, too.

* * *

Simultaneously comes news from Ottawa, Illinois, to the effect that "the allopathic physicians, who, having some months ago formed the Ottawa City Medical Society, have now decided that no homœopathic physicians or others deemed 'irregular' shall henceforth be recognised by the society or its members as physicians or surgeons." This action was deemed necessary because "not a few allopaths had fallen into the practice of inviting the homœopaths to be present at operations, and had repeated calls to consult with them in doubtful cases." It was decided by a unanimous vote that "where a homœopath has been employed by a patient he must first be discharged before an allopath will consent to call." At the first sight of it, this action looks monopolistic and intolerant, but it is not, for there is no law to prevent the homœopaths from adopting a like resolution against the allopaths and proclaiming them "irregular." The homœopaths have a right under the Constitution of the United States to resolve that "where an allopath has been employed by a patient he must first be discharged before a homœopath will consent to call." It is only when one "pathy" calls upon the law to persecute the other that it becomes tyrannical, when it "wants to have a law passed" for the suppression of rival "schools," or when it calls upon the coroner or the grand jury to punish any doctor who kills a patient except in the "regular" way.

* * *

Among the persons of eminence whom I respect and cordially dislike is the unromantic learned man who drives out of my hospitable beliefs the genii and the fairies I have cherished there so long; the detective historian, for instance, who proves to me from the contemporaneous records and the authentic documents that there never was any Robinson Crusoe, nor William Tell, nor Jack the Giant Killer. If science goes on at the present rate there will soon be no poetry left. Worse than the historian is the learned antiquarian overgrown with ivy who shows me that my venerable examples, types, and symbols of a former age are false and counterfeit. Among the holy places where I like to wander as a pilgrim is the armory of the Tower of London, filled for the length of a street with mail-clad warriors of the olden time, wax-work effigies on wooden horses, lances in rest and visors down. With reverential awe I love to listen to truthful James the guide, as he describes the different earls and kings, and sentimentally remarks as if he made the poetry himself, "their bones are dust, their swords are rust, their souls are with the saints I trust." Made eloquent by the prospect of a secret shilling which he thinks I am going to give him, he says, "This is Richard Coeur de Lion in the coat of mail

which he wore when he overthrew Saladin the Saracen in single combat, as you may have read in history. This is Edward the Black Prince in the very same accoutrements that he wore at the battle of Cressy. Next to him on the right is King Henry the Fifth, and the next on the right of *him* you behold Sir Lionel de Montmorency who commanded the Dragoons at the Battle of Hastings"; and so on through the catalogue. When I asked him if he could show me Sir Goliath de Gath, he said he could, and he did. Now comes the iconoclastic antiquarian and abolishes all that innocent enjoyment for evermore. Lord Dillon in the *London Antiquarian* shows that the ancient curiosities in the Tower are modern impostors, and that the suits of armor are ignorant anachronisms, one piece belonging to the eleventh century and another piece of the same suit belonging to the fourteeth or fifteenth century, an exposure that makes the iron clad crusaders in the Tower of no more historic interest than the martial men in brass and iron who prance on fiery steeds in a circus parade. I am assured, however, that the collection in Lord Dillon's own castle is genuine, but how can I believe that, after I have been so basely deceived in the Tower? If there is nothing new under the sun, is there anything old?

* * *

Following the fashion of every man for himself and against everybody else, the lawyers are now pleading for protection against the competition of brighter men. They, too, "want a law passed" making it more difficult than ever for aspiring genius to obtain admission to the bar. A magnanimous guild of lawyers in Chicago proposes to put six additional obstacles in the way of ambitious young men who seek to earn a living at the lawyer trade; and the generous purpose of these new obstacles is to lessen competition, and make the lawyer business a more narrow and exclusive monopoly than it is now. The members of the Bar Association got inside when the fence was low, and now they want to make it high. They want to raise the standard of education and increase the time of study for everybody but themselves. They would not be willing to stand the examination and probation they propose for others. When the lawyers of Iowa asked the Legislature to improve the quality of the bar by requiring applicants for admission to pass a more severe examination they strangled their own bill as soon as an amendment was proposed requiring all the lawyers to pass the new examination or be stricken from the rolls, "and the subsequent proceedings interested them no more." From the caste system of ancient England which made the professions the exclusive property of the rich we have borrowed the nonsense that hedges the bar in Illinois. Instead of putting new barriers up we should throw the old ones down. For every man or woman who wants to earn an honest living at anything, we ought to make the opportunities easier, and not harder. M. M. Trumbull.

GOETHE AND SCHILLER'S XENIONS.

[concluded.]

TRUTH AND ERROR.

DIFFERENCE IN ONENESS.

Truth is the same to us all; yet to each her appearance will vary.
When she remaineth the same, different conceptions are true.

UTILITY.

Truth that doth injure is dearer to me than available error,
Truth will cure all pain which is inflicted by truth.

HARM.

Whether an error does harm? Not always! but certainly erring
Always does harm, and how much, friends, you will see in the end.

EDUCATION.

Truth will never do harm. Like a mother she sometimes will punish,
Lovingly rearing her child, but does no flattery brook.

COMFORT.

Error accompanies us, but constantly in us a yearning
Gently is leading our mind nearer and nearer to truth.

ANALYTICAL TRUTHSEEKERS.

Do you take truth for an onion whose layers you singly can peel off?
Never you'll draw out the truth save 'twas deposited there.

[Schiller was a disciple and follower of Kant. In this distich and also in the next following "Human Knowledge," he characterises Kant's view of truth, who finds the conditions of knowledge in the thinking subject, not in the object that is thought. A thinking being, according to Kant, does not acquire an insight into the laws of form by experience, but possesses them *a priori*. He thus produces truth out of his own being, and imports it into the objective world.

It is true that truth and the criterion of truth, viz., reason, develop together with mind; for indeed reason is a feature of mind. Things are real, not true, and truth can dwell in mental representations only. In this sense Kant would be entitled to say, as he did, that things have to conform to cognition and not cognition to things. But considering the fact that mind develops from and by experience which implies a knowledge of things, and that reason is but the formal elements extracted from experience and systematised,—a consideration which Kant did not make because he never proposed the problem of the origin of mind—we shall find that the nature of truth is not purely so subjective, as our distich on the Analytical Truthseekers indicates, but objective.

For a critical exposition of the problem see the translator's article "Are There Things in Themselves?" in *The Monist*, Vol. II, No. 2, pp. 225–265, "Primer of Philosophy," the chapters on the *A Priori* and the Formal; The Origin of the *A Priori*, in "Fundamental Problems," the chapter on the Origin of Mind in "The Soul of Man."]

HUMAN KNOWLEDGE.

When thou readest in nature the writing which thou hast inscribed there,
When its phenomena thou castest in groups for thine eye,
When thou hast covered its infinite fields with measuring tape-lines,
Dost thou imagine, thy mind really graspeth the All?
Thus the astronomer paints on the skies his star-constellations
Simply to find his way easily in their domain.
Suns that revolve at a measureless distance, how closely together
Have they been joined in the Swan and in the horns of the Bull!
But can the heavens be thus understood in their mystical cycles,
When their projections appear on planispherical charts?

REPETITION.

Let me repeat it a hundred, a thousand times: "Error is error."
Whether the greatest it says, whether the smallest of men.

NOT IRRELIGIOUS.

What religion have I? There is none of all you may mention
Which I embrace.—And the cause? Truly, religion it is!

BOOK REVIEWS.

Labor and the Popular Welfare. By *W. H. Mallock*. London: Adam and Charles Black. Chicago: A. C. McClurg & Co. 1893.

Mr. Mallock has already obtained some fame by writing "Is Life Worth Living?" a conundrum which he answers in the af-

firmative by living; and if he lives as well as he writes, he lives well. In the hands of Mr. Mallock political economy is not a "dismal science," but a very attractive part of a political education. In this book the subject is made philosophically simple, as it ought to be, and the puzzling jargon of scientific and technical definitions is avoided. The argument is lightened by picturesque examples and the charms of a literary style admirable for its reading qualities. The book, of course, contains the usual quantity of arithmetic, adding, subtracting, and multiplying all the men, women, and children by the number of bushels of this or that, and afterwards dividing the whole wealth of the kingdom by the number of the inhabitants, and showing the proportion of hogs and cattle to each person at various periods of time, but the author never carries us into the occult mysteries that lie beyond the rule of three. Algebra, diagrams, and logarithms are absent, a great merit in any work on economics.

The trinitarian doctrine, that material wealth is the result of Land, Labor, and Capital, is expanded by Mr. Mallock into the quadrupedal theory that wealth is the result of Land, Labor, Capital, and Ability, and on these four feet it stands. The quadrupedal theory is not complete, for a fifth ingredient must be added, the element of good luck. The economists have not yet recognised this proposition, but it can be proved by the testimony of the farmer who tells at the end of the season how much more he would have made from his Land, Labor, Capital, and Ability had it not been for the cut-worm, and the potato-bug, and the hog-cholera, and the lumpy jaw, and the late frost in the Spring, and the early frost in the Fall. Mr. Mallock maintains, and with plausible reasons, too, that of these agents Ability contributes to the material wealth of a nation twice or thrice as much as Labor.

The main purpose of Mr. Mallock in this book is the refutation of certain socialistic theories which he thinks are erroneous altogether, or if partially correct are of little practical importance, because the amount involved is very small. For instance, he says that if all the rent exacted by the "titled and untitled aristocracy," was divided equally among all the families in England, it would give each man only two pence a day and each woman three half-pence. Very well, but this amounts to about a dinner a day, and Mr. Mallock ought to show that the "titled and untitled aristocracy" have a right to confiscate for their own use a dinner a day from every man and woman in the kingdom. So, referring to the cost of the monarchy, Mr. Mallock rather contemptuously says, "What does it come to a head? It comes to something like six-pence half-penny a year." This apology is worthless, if the monarchy is not worth sixpence half-penny; and if it is worth it, the excuse is not necessary.

The most interesting part of the book relates to the superiority of Ability over Labor in the production of material wealth, and the injustice of demanding an equal distribution of it. There is much valuable information in this part of the book, and the argument woven out of the facts is very strong. M. M. T.

A Critical History of Modern English Jurisprudence, A Study in Logic, Politics, and Morality, by *George H. Smith* (San Francisco: Bacon Publishing Co. 1893) is a concisely written pamphlet of eighty-three pages, which is deserving of the highest consideration of students of political questions. It is principally a refutation of Hobbes's and Austin's systems of theoretical jurisprudence, in connexion with which the author's own views are briefly presented. Aside from traditional legal doctrines, the science of jurisprudence scarcely exists in Anglo-Saxon countries; for there is no digest of the Common Law as there is of the Roman, nor is there any well-developed body of philosophical opinion on the subject. The scientific jurisprudence of England has hitherto been the system of Austin, which is deeply rooted in the English philosophical mind. In this theory law is the arbitrary will of an absolute Sovereign Power. Mr. Smith justly remarks, "if this theory be true, jurisprudence, as a science of right, can have no existence." Jurisprudence, thus, is made a philosophical discipline and is defined as "the science of the necessary conditions of rational social life." Mr. Smith's views are not new theories, but simply a logical analysis of jural facts, as this has been historically expressed in the idea of natural law, or *Naturrecht*. We cannot enter into a discussion of this subject here, which has a history strangely mixed with fallacies. We also forego the statement of differences as to details. The idea of the State and Law as products of natural growth might, we think, have been more distinctly stated. What Mr. Smith gives us is a metaphysics (in the Kantian sense) of right, such as it is given in latent law, or in the jural sense of mankind. Still, Mr. Smith is dealing with a problem of jurisprudence, and that English, and not specifically with a problem of natural history. It is a strange anomaly that at this late day of inquiry such a work should be needed. But it is. And it is very probable that it will be long before its conclusions are recognised.

μκρκ.

NOTES.

We have just received from Tabor, Iowa, a descriptive circular of a new "Benefit" enterprise, which those of our readers who are interested in such questions may wish to hear of. The idea is that of an amendment to the constitution of local churches by which all the members of the church, by paying monthly fifty cents into a benefit fund, shall be entitled to the free sanitary inspection of their homes, free medical attendance and care during illness or disability from accident, a certain sum of money during such disability and also to the other usual benefits of such organisations. As we have not space for a full account of this new movement, it may be mentioned that full information on the subject can be obtained from Prof. T. Proctor Hall, Tabor College, Tabor, Iowa.

THE OPEN COURT.

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THE OPEN COURT.

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LETTER FROM PARIS.

BY MONCURE D. CONWAY.

Paris, January 19, 1894.

It has occurred to me that the readers of *The Open Court* might perhaps be interested in some careful account of several matters, now going on in Paris, and of general importance, as viewed on the spot, even though the daily papers may have anticipated much that I write. I shall have to be somewhat rambling, for Paris is rambling, and perhaps a little gossipy; but the things that impress me here just now have their grave side, which the philosophical readers of *The Open Court* will not fail to appreciate, even if I do not say much in the way of interpretation.

And first let me state, more seriously than the telegraph will already have done, that the recent fire at Chicago, which burnt French articles sent to the Exposition, has extended to Paris, where some of the newspapers are in wrathful flames about it. Information has been sent here from Chicago that on the Tuesday preceding the fire the French agents there protested to the American officials against the withdrawal of nineteen out of the twenty fire-engines which had been protecting the property. Some of the journals reveal a suspicion that the Americans were not unwilling to see the destruction of artistic objects so much superior to their own. The culpability of this negligence is extended to our whole nation. The *Temps* says that the United States was the most tardy nation in accepting the invitation of France to join in the Exposition of 1889. The *Matin* begins a column with the exclamation: "What blackguards (*canailles*) these Yankees are!" It makes all manner of ridicule of the American productions exhibited, and declares that bad faith was manifested towards France in the distribution of medals as well as in the failure to protect the porcelain and tapestries destroyed. It is probable that all this uproar will end in a reclamation against the United States government, from which came the request that France should send articles to the Exposition. It will be probably urged, and not without some force, that this invitation, which came from Washington, connoted some guarantee that the goods would be protected with due care and diligence. At any rate, the thing is causing an excitement which causes some anxiety at the United States Legation, whose Secretary, Henry Vignaud, has already written a letter to *Le Temps*, denying that his country was backward in the French Exposition of 1889. A hundred years ago France was wild with rage because John Jay formed with England a commercial treaty in virtual violation of our treaty with France, and now the anniversary is celebrated with accusations of bad faith almost as stormy. Chicago ought to know, also, that there is a general feeling in Europe, and that it is shared by Americans, of disgust that the Exposition should have terminated with such a disaster. I should add, however, that particulars have not been fully published here, up to this date, but a long telegram has appeared, dated "Chicago, January 17," in which it is stated that the Germans in Chicago were at the bottom of the obstructions which the French exhibitors met with from the first. It was only by the friendliness of Guatemala, in giving them part of its space, that the French were enabled to exhibit as well as they did. The Chicago Germans managed to prevent the French scheme of arranging a boulevard scene, "Paris-Plaisir." It is added that the Commission of the Exposition has opposed an inquiry, proposed by the State of Illinois, into the fire, basing their opposition on the supreme powers conferred on them by Congress within the circle of the Exposition. Consequently the mysterious affair will never be cleared up. It is regarded as a case of German incendiarism. Of course, I do not give any credence to these suspicions, but it is well that they should be known, and that there should be a complete inquiry, the results being published in Paris.

The incident has occurred at a bad moment. There are reactionists enough in France who will be eager to score it as another point against republican institutions in general. At no previous time since the French Republic was established has there been so much alienation from it. It is a notable symptom that in Paris the Napoleonic legend commands the centenary of the Revolution. The chieftain who raised his military despotism on the ruins of a republic, is to-day the hero of the theatres, figuring in several plays amid popular applause. On the other hand, the present republican *régime* is represented on the stage in merciless carica-

tures of Senator Berenger ("Père Pudeur"), who last year made a state affair of a ball given by the art students to their models. Some of these models, who make their living by posing in studios and art schools, wore little clothing; yet it was a private ball, no money being taken at the doors, and the public not admitted. The students regarded the hall they had engaged as, for that evening, their legal castle. They made a merry demonstration against "Father Modesty," before his doors, and their dispersion led to riots, in the course of which one student was killed. The students desired to attend in a body the funeral of their comrade, but the government resolved to prevent this. The government took possession of the dead body, and the students stood in the streets night and day before the gates of the building. At length a mounted troop dashed out, the corpse carried among them, and galloped away to some place of burial, leaving the youths enraged behind. The legislature then passed a measure, forbidding masquerade dresses in halls and streets excepting during carnival time. The law is freely violated in all the theatres and music-halls, the only sufferers thus far being, I believe, two respectable ladies who were fined for bicycling in knickerbockers in the Bois de Boulogne. They were decently dressed, but had they waited for carnival time might have appeared on the boulevards in tights. Thus it is that the Napoleonic empire, which permitted entire freedom in popular amusements, and the Republic, which has vainly tried to puritanise them, now appear on the stage, the former in dignity, the latter in caricature. By thus confusing its functions with those of the municipality and the police, whose business it is to preserve public decency and order, the legislature and government, besides failing in their attempt, have covered themselves with ridicule,—a perilous thing in France,—and have alienated the students and artists. Furthermore, they have given a dangerous instruction to the suffering classes by assuming the position of paternal government. If government can enter private rooms, and control the costumes of their inmates, why should it not be required to enter them for the purpose of giving clothing to those who have none, and food, and employment? The socialists, anarchists, and all the foes of the present social order, are making the most of every apparent instance of suffering. Dramatic presentations are given of such events as, for example, the suicides of the Caubet family, January 15, last. The father, mother, and daughter, after treating themselves to a fine champagne supper, suffocated themselves with fumes of charcoal. A government which occupies itself with dancers' skirts is naturally burdened with responsibility for all such things. The "bourgeois" Republic was really aimed at by the *immortelles* contributed by socialist societies to the ashes of the cremated Caubets. Yet it now turns out that they were not in real want, but were all in dejection because M'lle Caubet's artistic efforts had been refused at the Salon, and the Opera had disappointed her theatrical aspirations. Of course, a national legislature which attends to theatrical costumes ought to have attended to Miss Caubet's projects! There are in this legislature some able, large-minded men, university men, and they do as much good work as they can, but they are overlaid by the noisy cliques and their partisans. Among these there is none around whom gathers any national enthusiasm. The late Senator Victor Schoelcher was nearly the last of the race of republican statesmen,—such as Louis Blanc, Ledru Rollin, Victor Hugo. Between that political race and the present yawns a Panama gulf. France shows no decline in literature, science, art, dramatic genius, but in political and parliamentary ability there has certainly been some decline. Under the recent administrations the Republic has been losing friends, but still I do not believe in its immediate danger, for, in fact, none of the parties hostile to it,—papal, legitimist, or imperialist,—has any leader of sufficient ability or fame to strike the popular imagination. Not one seems capable even of the cock-sparrow rôle of Boulanger. And yet there are various elements, Catholic, communist, anarchist, monarchical, which, however antagonistic to each other, agree in a sullen dislike of the present *régime*. And the fund of popular ignorance and stupidity which may be drawn upon is illustrated by the fact that the irreconcilable Henri Rochefort publishes his suspicion that an unknown person, who sent the anarchist Vaillant one hundred francs, was an agent of the government, which needed a bomb thrown among the Deputies in order to consolidate a majority!

Amid such political conditions the bomb of Vaillant has had effects beyond the physical injuries inflicted. He has been sentenced to death, but is not likely to be executed.* As no one was killed, the capital sentence is really meant, in large part, to punish the attack on the national sovereignty; but this has not been mentioned. The prosecutor did not claim more sanctity for the legislature than for any other group of individuals, and he even alluded to Panama. Ravachol got off in Paris because no one was killed, but was condemned to death at Saint-Etienne where a victim died. Vaillant's case presents some phenomena worthy the attention of those who study the mixed elements of modern "civilisation." The deputy whose voice is heard above all others in entreaty for the life of Vaillant is the chief sufferer of the bomb. This sufferer, who has sent Vaillant his pardon, is also an Abbé,—the Abbé Lemire. Yet it is the church of this Abbé which is responsible for the retention of capital pun-

* Just as we go to press the cable announces Vaillant's execution,

ishment in France. Popular feeling has long been against the death-penalty: the law remains because it is biblical, as indeed for the same reason it survives elsewhere. But while permitting Moses to remain the law-giver to society in this particular, the popular feeling is so much against it that all manner of devices and technicalities are used to save the murderer. After the criminal is condemned by a jury, he may appeal to a court of Cassation; if this confirms his sentence, he can appeal to the Commission of Pardons; and even if this refuses clemency, the President can personally overturn the entire series of decisions. But where there are any reasons of State for overruling a jury's sentence the court of Cassation rarely finds difficulty in so doing. Article 337 of the Code of Criminal Instruction provides that the question shall be put to the jury in these terms: "Is the accused guilty of having committed such murder, such robbery, or other crime, with all the circumstances contained in the indictment." Indictments are very apt to be vague about some circumstance. How exacting as to the letter the court of Cassation may be when it wishes, is illustrated by curious examples. In 1856 it quashed the sentence of one Marjoras, who had unquestionably murdered two children, because the indictment had accused him of murdering "two children" instead of mentioning the children separately. Since then several wholesale murderers have similarly escaped because each victim was not severally the subject of a count in the indictment. In some cases a mistake in orthography has caused a verdict to be set aside, the most absurd being when the foreman of the jury had written the verdict as that of the "magorité" instead of the "majorité." Under such precedents the court of Cassation will have little difficulty, as Vaillant's defenders are pointing out, in quashing his sentence should they so desire. The indictment was that he had "on November 9, deliberately attempted manslaughter on the persons gathered in the Palais-Bourbon, in the Chamber of Deputies, then in session," etc. Now, Vaillant himself was one of the persons then and there gathered: did he deliberately attempt to murder himself? The indictment proceeds to say that "the attempt was shown by a commencement of execution, which was interrupted and failed only through circumstances beyond his will." It is urged that according to law each of the charges and circumstances should have been submitted to the jury separately, whereas they were all lumped together. Should this court quash the sentence, Vaillant will be tried over again. If the sentence is again death, it will go on the Commission of Pardons, and probably be commuted. Before this letter reaches you the cable will have announced the decision. My belief is that it will be so arranged that Vaillant will owe his life to executive clemency. The Commission of Pardons is entirely secret, even its members being unknown; this would be an admirable institution were it not that its recommendations require the presidential signature, which may be withheld. But it will not be withheld by M. Carnot, who refuses even to read the petitions sent him for Vaillant, but transmits them to the Commission. Vaillant and the anarchists would no doubt prefer a breakdown of the prosecution rather than release by craving pardon.

But Vaillant, if he escapes, will owe his life to many considerations. First of all to his only child, his nine-years old Sidonie. She seems devoted to her father, and the tears from her blue eyes are counted by all the reporters. Then the piteous tale of Vaillant's sorrows and hardships is told and retold in romantic versions. In his favor weighs a large public sentiment which, while detesting the man, is all the more opposed to giving him the halo of martyrdom. There is also a large opposition to capital punishment. Some have been moved by his unique defence. He declared that he had developed his ideas by reading Mirabeau, Darwin, Büchner, and Spencer (the two Englishmen have been defended by *Figaro* from such patronage). Vaillant has touched the spirit of young Paris by his courage. Not only did he show pluck in risking his own life along with others by his bomb, but still more in his defiant and scornful answers to the judge. The impression he made on those present in the court-room was better than the papers represent. A young man, not much over thirty, though almost aged by hard experiences, he is rather good-looking, and his manner free and impulsive. He asked wherein his bomb was more cruel than the bombs hurled by the government's orders among the innocent people of Tonquin, and elsewhere, and made many other retorts which will be certain to be quoted by the socialists. As to his mistress, he declared that her husband had already deserted her. The passionate devotion between these two, and the affecting scene when he was visited in prison by her and his little daughter, Sidonia,—the woman hurling herself against the grating that separated them,—have been described with every accent of pathos. Again, the government probably feels that it would be unsafe to attempt to guillotine Vaillant in public. His mistress declares she will be there to prevent it, and a scene could not be avoided which perhaps might be attended with danger. A legislative committee has for some time had in preparation a bill for secret executions, and it has been proposed to hurry it through into law, in order that it may apply to Vaillant. But it is pointed out that such a retrospective application of a new law would be illegal. Vaillant must be executed, if at all, under the laws existing at the time of his trial and sentence. Should the government execute Vaillant in secret a popular outbreak

would be about as likely as if in public. Thus a mixture of apprehensions, sympathies, and sentimentalities, joined to a general aversion to capital punishment, will probably end in sending Vaillant into penal servitude for life,—that is for a year or so, when he will be again restored to the bosom of society, and perhaps become a more prosperous, as he already is a more famous, man, than if he had never wounded thirty gentlemen and ladies in the Palais-Bourbon. Already his mistress is a heroine, her every movement reported in the papers more minutely than those of any lady in France; and a Duchess (d'Uséz) has recovered the lustre lost since her friend Boulanger's death, by offering to support little Sidonie Vaillant. Vaillant rather scandalised the anarchists by his willingness to have his daughter supported by a Duchess, reared as a "bourgeoise," and they demanded that she shall be the daughter of their regiment. A third competitor for the child is M. Heytz, a billiard-table maker, an old friend of Vaillant, but an opponent of the anarchists. Vaillant agreed that Heytz should adopt her. But this, too, annoyed the anarchists, and so the child disappeared. However, she was found at the house of one Martin, an anarchist, who happened the same day to be arrested. And now Vaillant's mistress has visited him again, and reports that he has given the child to her. The reason he did not do so first was that he supposed she could not support it, but she says she can, though where the income, whose absence he deplored on trial, is coming from is not reported. But thirty anarchists have united to supply one hundred and fifty francs per month for the child's support and "education." Thus many conceivable destinies have hovered over the child's head, and in so doing have saved her father's head. Little Sidonie's tears have largely effaced all memory of the thirty gentlemen and ladies now prostrate with wounds inflicted by an act which the Prosecutor, with unconscious atheism, described as characterised "by an indiscrimination resembling a catastrophe of nature." A round of applause has gone through Europe for the jury which, in the face of many menaces, condemned Vaillant to death. But the probabilities are that the victory will ultimately go to the anarchists, and that Vaillant will win by his bomb wealth for his mistress and his daughter, whom he could not support, world-wide fame to satisfy his inordinate vanity, and freedom to propagate his reckless species. All of this will be due to the continuance of a savage penalty, that of death. Had it not been a question of death, Vaillant would have passed with little notice to his prison-garb and his work; and a little surgery would have prevented, according to his beloved Darwin's science, any further survival of the unfittest in his personal line, besides humiliating his heroic pretensions.

THE MODERN STATE BASED UPON REVOLUTION.

Among the ancients the State was a religious institution, and the State's authority was to Greek citizens not less ultimate than that of the Pope is to Roman Catholics. Socrates attended to his duty of voting against the unanimous fury of the Athenian mob when the ten generals after the victorious battle of Arginusæ were unjustly condemned to death. But he did not venture to oppose an unjust law as soon as it had become law. He obeyed the law when it most outrageously condemned him to death; he might, with the connivance of the authorities, have easily made his escape, but he preferred to stay and to die. Very different from this attitude was the position of Sophocles. He was imbued with the same spirit as our Protestant heroes, a Milton, a Luther: he preached disobedience to immoral laws. Antigone says:

> "It was not Zeus who gave them forth,
> Nor Justice dwelling with the Gods below,
> Who traced these laws for all the sons of men;
> Nor did I deem thy edicts strong enough,
> That thou, a mortal man, shoulds't over-pass
> The unwritten laws of God that know no change.
>
> They are not of to-day nor yesterday,
> But live forever, nor can man assign
> When first they sprang to being. Not through fear
> Of any man's resolve was I prepared
> Before the gods to bear the penalty
> Of sinning against these."

Sophocles ranks the unwritten laws of the morally right above the legality of State-laws. In a conflict between the two, the former is to be regarded as the superior authority, and justly so, for the State's authority rests upon the moral law, and it is the State's duty and its ultimate end of existence to realise the moral law in establishing a moral community.

The Saxon nations represent the revolutionary principle in history, and they are proud of it. Historians unanimously praise Hampden's resistance to the payment of ship-money. Hampden became a martyr of the revolutionary principle, viz., the right to resist illegal impositions of government, and such resistance was with him a religious duty. The free England of today gratefully remembers his services in the cause of freedom. The sinking of the three vessels of tea was in some respect a boisterous student's joke, but it was prompted by this same revolutionary spirit which makes it a duty to resist unjust laws; and to fail in this duty is regarded as a sign of unmanliness.

Resistance is right when the State-authority comes into conflict with moral laws. But who shall illumine the minds of the people? Who shall decide whether their own views of right and wrong are correct or not? Even such a scoundrel as Guiteau while standing on the scaffold shouted "Glory, glory Hallelujah!" We can only say that every case must be considered by itself, and every one who feels called upon to stand forth as a champion for his particular ideal of right and jus-

tice, must take the consequences. Mr. Hampden lost his fortune and nobody ever replaced it, and yet we feel sure that if we could arouse him from his slumber in the grave and ask him whether he regretted it, he would most positively uphold his old conviction ; he would be proud of the subsequent course of events, which justified his action, although it had ruined his life, and he would be glad to know that the same spirit that prompted him is still alive in the Saxon races.

The revolutionary spirit of the Saxon races possesses one peculiarity: it is based upon manliness and love of justice, i. e., upon the higher morality of the unwritten law ; it is pervaded by a moral seriousness and supported by a religious enthusiasm. And this is the secret why the English revolution and the American revolution were successful. They did not come to destroy, but to remove the obstacles to building better than before.

With all this unreserved appreciation of the revolutionary principle, we are by no means inclined to say that it is our duty to resist any and every immoral law. On the contrary, we should consider it as a public calamity if every one who has peculiar and dissenting views from our legislative bodies concerning the morality of a certain law, should resort to open rebellion.

The method of settling questions of right or wrong by the majority votes of legal representatives has, with all its faults, also its advantages. Problems as to the fairest methods of taxation, as to restrictions for temporary exigencies, as to peace or war on a given provocation, etc., have a deep moral significance and should be decided not according to private interests or party politics, but solely from the moral view of the subject. Should, however, a popular error concerning their right solution be so prevalent as to make it possible to procure for it a majority vote, we may, on the one hand, deeply regret the lack of the people's insight, but must, on the other hand, grant that under the circumstances and in a certain way it is good that the State should act according to the erroneous notion popular at the time ; for the people, if not amenable to reason and the sense of right, should find out their mistake by experience, so that the public mind may be educated.

The justice of the revolutionary principle can be doubted only by those who regard morality as a blind obedience to authority. We demand a higher conception of morality ; we require that the truth shall be openly investigated, and that truth itself, not a representative of truth, as a pope, or a church, or dogmatic formulas, shall be the ultimate authority of conduct in life.

This is the spirit of the new dispensation, and this, too, is the basis upon which we build our national life. And we are conscious of the fact that we stand upon a higher moral ground than those who praise submissiveness to this or that authority, which is regarded as a divine institution, and derives its power directly from the grace of God, according to sacred revelations which are said to be infallibly right and reliable, even where they are in conflict with facts and where they flatly contradict reason.

The revolutionary principle has been doubted by some, not on account of its justice, but on account of its alleged impracticability. Its success, however, among the Saxon nations, with their consequent unprecedented and unrivalled advance in industry, trade, literature, art, and general prosperity, can no longer be doubted. Those nations alone possess the future who sanction this revolutionary spirit, based upon the higher morality of manliness and freedom.

The modern State-ideal (which is not an embodiment of individualism, for that would make the State itself impossible, but which recognises nevertheless the principle of individualism) procures for its members a wider liberty and a fuller justice, thus removing all the shackles that prevent progress or hinder the free pursuit of righteous enterprises.

The State which in opposition to the Church came to be regarded as a profane institution, is now again sanctified as a moral power, having moral aims, existing for a holy purpose, and destined to realise and to help its citizens to a life according to the highest ideals of humanity. The State is a moral institution, and it is therefore our duty, according to the precedent of Christ, one of the first and greatest representatives of the revolutionary spirit on earth, to drive out of its halls those who barter there for private gains. The State does not exist to be a den of thieves, and it is but right to cast out the money-changers and those who sell and buy in this most sacred temple, built of the souls of men.

TREASON AND REFORM.

The question now arises, Can there be in a State which recognises the justice of the revolutionary principle, any such thing as treason? We answer in the affirmative.

Treason, according to our definition, is any act which, as the result of conscious and deliberate purpose, tends to undermine the existence of the State ; and treason is not merely a punishable offence, it is one of the gravest crimes that can be committed.

In giving this definition, however, it must be added that the name "traitor" has been flung at every revolutionist, at every advocate of the rights of the oppressed, and at every reformer. Not every revolution is treason. Those revolutions which stand upon moral grounds, being, as it were, an appeal to the unwritten laws of our highest ideals, are aspirations for reform ;

they are attempts to replace any traditional law, which, from the standpoint of a more humanitarian justice, is felt to be unjust. Treason is that kind of revolution which comes to destroy, which is not based upon moral motives and does not bring to the front a higher moral conception.

It is very difficult to draw any well-defined line between treason and reform, especially when it is remembered that every reform appears necessarily as treason to a conservative mind. As to would-be reformers, who commit acts of treason in the vain hope of doing a good work of progress, we can only say that they take their chances. If a man is not positively sure that his resistance to the law is a true act of reform, or a better and juster arrangement of society, he had better leave the work to other men; and even those men who feel quite sure that they are called upon to become reformers should carefully question their own sentiments, lest their vanity inveigle them to enter upon a thorny path, which to them appears as one of martyrdom, but in fact is only the error of an empty dream. Both will suffer equally, the reformer and the vainglorious prophet of error, but the former only will live as the martyr of a great cause; the latter will perish without even being respected or even so much as pitied by following generations.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

THE SPIRIT OF LOVE.

When Jesus had finished these sayings he came down from the mount, and went into the city.

And while he abode there, certain of them who had heard him on the mount came unto him.

Asking of him an interpretation of the doctrines which he had preached unto them.

Then said one of the multitude unto Jesus, How can a man love his enemy?

Jesus answered him, Verily I say unto thee, even as the sun shineth alike upon the evil and upon the good.

And upon him that blasphemeth and him that blesseth.

Even so do ye also unto them that be round about you.

For as the sun warmeth them that be cold, so is it with the heart of him in whom dwelleth the love of the Father.

And even as the cold of the earth chilleth not the sun in the heavens.

So is the heart of that man which is born of the spirit.

For the righteous man hath not an enemy.

Thus spake another unto Jesus,—a certain citizen of Decapolis, versed in the law:

Rabbi, thou didst say unto us, if one take our coat let him have our cloak also; and if one compel us to go with him a mile, that we go twain.

Shall I then give unto a robber the garments that I might give unto my children?

Or shall I forsake them of mine own household to follow after a stranger?

Jesus answered him, Hast thou not heard also that he that provideth not for his own hath denied the faith?

And yet again, Give not that which is holy unto the dogs.

Verily, verily I say unto thee, love asketh not, neither questioneth, nor doubteth.

For to him that believeth shall be given understanding.

And he that loveth, knoweth.

THE FREE VINE.

Then the disciples asked Jesus concerning that saying, The truth shall make you free.

And Jesus saith unto them, Behold yonder vine.

And the disciples say unto him, Master, we see no vine; that which thou seest yonder is a tree.

Jesus saith unto them, Look again. Can a tree bear grapes?

And one of the disciples ran unto the tree and plucked the grapes;

And when he came again he saith, Truly it is a tree, and yet it is a vine also, for behold the grapes that I have plucked.

And Jesus saith unto them, Learn a lesson of the vine;

For while it was yet young and tender the gardener planted with it a staff;

And, after many years, the staff, having no life in it, rotted away;

But behold, the vine stood upright, as it doth now.

So is every one that is called of the spirit. And he shall be like a vine that the gardener planted, which bringeth forth fruit in due season.

Wherefore should I say unto you: See that ye despise not the vine?

* These articles on the nature of the State which appeared in Nos. 334, 335, 336, and 337 of *The Open Court*, originated in the following way: In October, 1892, the indictment of the Homestead rioters for treason was the occasion of some remarks by Gen. M. M. Trumbull in Current Topics (No. 269 of *The Open Court*) where treason was glorified on the ground of the fact that it has always been the fate of reformers to be branded as traitors. This remark elicited in turn an editorial comment on the nature of treason, which was defined as "that crime which directly attempts to undermine the State" (No. 269), and also an editorial article entitled "Does the State Exist?" (No. 272). After the publication of this article we received several letters from individualists and anarchists endeavoring to demonstrate the non-existence of the State, and in publishing several of them (Nos. 272, 275, 279) we promised to explain further the nature of the State in some subsequent articles, but were unable at the time to find space for them. We have now at last found room for these articles. They are as timely now as they would have been during the anarchist or Homestead trials, for the dynamite crimes in Barcelona and Paris demand a reconsideration of the nature of treason in the light of the modern State conception, which recognises the aspiration for reform as a right and even as a duty of all good citizens.

Verily the vine requireth not that I should say unto you, Despise it not;

For behold freedom speaketh while it is yet dumb.

Or wherefore should I say unto you, Despise not the fruit thereof?

Verily the fruit that ye have tasted speaketh for me.

But I say unto you: Despise not the staff which the gardener planted.

And ye that are free, despise not the staff which thy brother requireth;

Neither say unto thy brother, cast aside thy staff.

For behold he needeth it.

But the time cometh, when from the rising of the sun unto the going down of the same;

In every kingdom, and nation, and language shall no staff be required any more forever,

For every soul shall be free on the earth even as it is in my father's kingdom.

And they were astonished more and more daily at the doctrine which Jesus taught unto them:

For he spake as one having authority.

CURRENT TOPICS.

Last night the Society of the Army of the Potomac enjoyed its annual dinner at the Grand Pacific Hotel in Chicago; and among the battle-scarred veterans present was Col. Robert G. Ingersoll, the most martial man in all that martial company, his voice reverberant like the long roll of the spirit-stirring drum, stimulated the grizzled warriors and urged them on to new conquests and additional glory. Colonel Ingersoll wanted more territory, and in pursuit of his patriotic ambition he would "the multitudinous seas incarnadine." Waving his metaphorical sword, he said: "I want to gobble up the West Indies, and the Bermudas, and the Bahamas." He wanted Canada, too. "I don't want to steal it," he said, "but I want it." He wanted Mexico; for the curious reason that "there is only air enough between the Isthmus of Panama and the North Pole to float one flag"; meaning, of course, the flag of Colonel Ingersoll. Even the Sandwich Islands were not beneath his patronage, and he wanted them "for a coaling station." As there was no more land in sight he put in a claim for the Pacific Ocean, and wanted to "gobble up" that. His youth was renewed by the recollections of the heroic olden time when he was a soldier charging on the foe, and in a glow of enthusiasm he oratorically mounted his war-horse once again, while his dry sword, thirsty with a peace of thirty years, rejoiced at the promise of battle. Colonel Ingersoll was unanimously elected an honorary member of the Army of the Potomac, but he ought to have been appointed commander-in-chief.

* * *

Like the gushing of a crystal stream was Colonel Ingersoll's praise of liberty. What he said on that theme looks like poetry, reads like poetry, and it *is* poetry. Without freedom as an inspiration, a camp-fire of Union veterans would be nothing but ashes and dead coals, a feast without a sentiment. When liberty magnetised our bayonets, victory came to our cause, and the triumph of liberty justifies the war. Eloquent as an old prophet, Colonel Ingersoll said: "I congratulate you that you lived in a period in which the North attained a higher moral altitude than was ever achieved by any other nation in the history of this world, and that you now live in a country that believes in absolute freedom for all—freedom of hand, of brain. We believe that every man is entitled to what he earns with his hands and to reap the harvest of his brains." This just and magnanimous creed, this doctrine of "absolute freedom," was qualified a little farther on when Colonel Ingersoll condemned the freedom to buy and to sell. Limited by that qualification, it appears that every man is entitled to what he earns with his hands if he will spend his earnings under the direction of Colonel Ingersoll. This eloquent advocate of liberty is willing to allow his neighbors freedom to think and to write, freedom to work and to talk, but not freedom to trade. He draws the line there and says, "Take any liberty but that." He is willing to allow the people as much freedom as he thinks is good for them, but no more; and herein he differs little in principle from the emperors, the bishops, and the kings. Colonel Ingersoll thinks the public interest requires that the "absolute freedom" of a laborer to spend his wages wherever he can get the best bargains ought to be taken away from him; and some other colonel thinks the public welfare demands that the "absolute freedom" of speech indulged in by Colonel Ingersoll ought to be taken away from *him*. And these two colonels differ only in degree, and as to the specific freedom that ought to be restrained.

* * *

A very interesting controversy as to the character and meaning of the Scriptures is now going on between two Baptist Doctors of Divinity, the Rev. Dr. Harper, President of the University of Chicago, and the Rev. Dr. Henson, Pastor of the First Baptist Church. Dr. Harper is giving a course of lectures on "The Stories of Genesis," and he shows by abundant learning that they are not history, nor science, nor fact, but are merely legends and fables with a spiritual and prophetic meaning. To this degradation of the Bible Dr. Henson objects, and he thinks it rather inconsistent for the president of a Baptist University to conjure fanciful meanings into the Scriptures when the language of the text is plain. The subject of Dr. Harper's lecture on the 28th of January was the story of Cain and Abel, which, he said, "was no more true than the myth of the capture of Troy by the wooden horse, or the founding of Rome by Romulus and Remus." In the opinion of Dr. Henson this comparison is not well made, and he thinks it not impossible that Troy was taken by means of the wooden horse, and that the story of Romulus and Remus is true. Dr. Harper said that the prophet "simply rewrote the stories and traditions which were in the mouths of men of his day to the purpose of teaching religious truths." He said, "This is the principle—that of turning into gold the material at hand by infusing it with the spirit of good—that the ancient prophets went by. It was the method of God." Dr. Harper has made further explanation of his meaning, and that explanation is described by Dr. Henson as "involved, intricate, and incomprehensible"; and he says that "analysing Genesis is child's play compared to discovering what Dr. Harper means."

* * *

The allegorical story of Cain and Abel is imperfect, because it has been chipped and mutilated in moving about from place to place during four or five thousand years. It is like some of the resurrected statues of old Rome that were broken by the Goths and Vandals, and like those venerable relics it must be repaired. It is a chapter in the story of Evolution, and although it is written in fable, it explains a law, that merciless and unrelenting statute which we call the "survival of the fittest." Properly, there are three brothers in the story, representing different epochs in the development of civilised man, Seth, a hunter, Abel, a shepherd, and Cain, a tiller of the ground. When it was discovered that food could be obtained with less labor and more certainty by herding tame animals than by hunting wild ones, the doom of the hunter was decreed, and Abel killed Seth. When it was found out afterwards that there was more food in tillage than in pasture, the race of the shepherds was run, and Cain killed Abel, for Cain was

a tiller of the ground. As we must all of us live off of the land, the men of a race that can raise the most food on a given territory will have the territory, and to get it they will kill the others. The drama of Cain and Abel and Seth is being repeated now here in America, the new Garden of Eden discovered by the white man four hundred years ago. The red hunter is nearly gone, and in due time the cowboy will surrender his grassy plains to the ploughboy, for such is the law, as it was written in the scriptures of Evolution long ago.

* * *

It was not a great battle that was fought the other day in the harbor of Rio de Janeiro between Admiral Benham of the United States Navy and Admiral da Gama of the insurgent fleet of Brazil; in fact it was nothing but a soft glove contest for points, and the decision of the referee is that Admiral Benham won. The importance of a battle is not to be estimated by the number of killed and wounded, but by the value of the principle that was victorious in the fight. The principle maintained and asserted by Admiral Benham is, that while belligerent powers have certain rights in war, commerce also has rights that must be respected by the belligerent guns. The ancient precedents may not sustain Admiral Benham's argument, but his cannon spoke the language of the more enlightened opinion of this modern world wherein so much of individual prosperity depends upon international trade. The barbarous blockade code must be revised. The action of Admiral Benham seems to be approved by all the other powers; in fact the German Admiral at Rio threatened several days ago to sink the insurgent fleet should Admiral da Gama forcibly interfere with German ships lawfully loading or unloading in the bay. The lawyers will now brush the cobwebs from their books on maritime law and explain to us the ethics of blockade. We shall now learn from the decisions how foolish it is for a merchant ship to get in the way of an ironclad when the war ship is bombarding a town. We shall get an immense fund of information concerning the rights of neutral powers in belligerent ports, and at the end of all our abstract learning we shall have a practical suspicion that the biggest nations have the biggest rights.

* * *

It is the misfortune of Mr. David Brewer, Justice of the Supreme Court of the United States that he takes his mouth along with him wherever he goes, and fires it off in a very reckless and scattering way. He needs it, of course, for eating purposes, but after dinner he uses it for talk, and his critical gossip involves him in a medley of absurdities that bring down upon him ridicule, censure, and recrimination. In an after-dinner speech delivered by him recently before the Yale Alumni he took a fling at what he called "this age of cranks," and he classified among the cranks a number of men, women, and ideas prominent in law, labor, education, and politics, including within his ridicule no less than three governors of States, Tillman of South Carolina, Waite of Colorado, and Altgeld of Illinois. These, however, are living men, actually now in office, and therefore public property, but with judicial wit and terrapin pleasantry he referred contemptuously to a former President of the United States, now dead, as "the husband of Mrs. Hayes." and this it is that hurts our western feelings, because his awkward conversation is excused as "western manners." This is hardly fair to the "rowdy West," for as Mr. Justice Brewer was the guest of the Yale Alumni, we have a right to assume that he is a product of that famous eastern college. As the *Arizona Kicker* has well said, "We have our idioms," out here in the West, but they are not those of Mr. Justice Brewer.

* * *

It is a familiar old adage that those who live in glass houses should never throw stones, and this venerable warning may be profitably studied by Mr. Justice Brewer. In his light and chirping way, at the dinner of the Yale Alumni, he poured sarcasm upon Governor Waite as a crank who would solve the financial problem "by causing blood to flow bridle-rein deep," and upon Governor Altgeld for his "pardon of anarchist murderers as a means of justice." Judge Brewer forgot that not more than six months ago he himself was denounced by the newspapers as an anarchist and a crank, because in the "calamity speech made by him on the Fourth of July he anticipated Governor Waite in his prophecy of blood. Speaking of the wage system and the conflict between capital and labor, Judge Brewer theatrically wanted to know "if a bloody struggle would be required to abolish this form of slavery as a bloody struggle had been required to abolish negro slavery." This Fourth of July oration was condemned by one of the great papers of Chicago as "a hysterical cry of alarm that might be expected of a rattle-brained blatherskite at a meeting of the Trades and Labor Assembly." Judge Brewer ought to know, and very likely does know that the so-called "anarchist murderers" were condemned, not for what they did but for what they said, for making speeches like the orations of Mr. Justice Brewer. Had he been tried with the anarchists, that Fourth of July oration, if already delivered, would have convicted him, and in that case he himself would have been a subject for Governor Altgeld's pardon.

M. M. Trumbull.

NOTES.

Professor Max Müller sends us a prettily bound memorial pamphlet which he has compiled in honor of the fiftieth anniversary of his receiving the doctor's degree in the University of Leipsic. The pamphlet contains pictures of the Professor in five stages of life, namely, three years of age, at school, student in the University of Leipsic, Professor at Oxford, and as he is now. The rest of the pamphlet is made up of a catalogue of his principal works and of a list of his degrees together with reduced copies of his new and old Leipsic diplomas. No doubt the Professor would gladly send a copy of this delicate little memorial production to any admirer of his who might request it.

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THE PROBLEM OF PROGRESSIVE HEREDITY.

BY PROF. ERNST HAECKEL.*

When Jean Lamarck in 1809, in his profoundly thought out *Philosophie zoologique*, laid the foundations of the theory of descent which is now universally accepted, he explained, as we know, the gradual transformation of organic forms principally by their own natural activities. The practice and use of organs strengthened them. Inactivity and disuse weakened them. Both the progressive transformation which in the first case the organ had experienced by growth, and the retrogressive alteration which in the second case it had experienced by diminution, could be transmitted by heredity to the animal's descendants. By the accumulation and settlement of these slight changes, in the course of generations, new "good," or distinct, species sprang from varieties. Of the many grand ideas in whose conception Lamarck stood far in advance of his times, the assumption of the heredity of acquired characters certainly belongs to the most significant. If he was not so fortunate in the empirical establishment of this idea and in the choice of good and appropriate examples, the fault for the most part lay in the defective condition of the biology of his time.

The greatest gap which Lamarck left in his theory of descent was filled fifty years later by Charles Darwin in his theory of natural selection. In founding his doctrine of the struggle for life, this latter inquirer discovered the most important efficient cause of historical transformations which was wanting in the speculations of his great French predecessor. Still, the theory of natural selection is not the only cause of the unparalleled success which the "Origin of Species" achieved. This success is also greatly due to the broad and ingenious use which the great English inquirer made of the stupendous advances of modern biology. Concerning the limits of action of the new factor natural selection, its own founder had at different times very different opinions. It was quite natural and pardonable that he should at first make these limits very wide; subsequently he greatly restricted them by placing more and more emphasis on the heredity of acquired characters. In doing this, Darwin drew nearer and nearer the ideas of Lamarck, of which at first he did not have a very high opinion.

Up to this time only empirical experts, such as stock-breeders, animal-fanciers, and gardeners, who were guided solely by practical interests, had occupied themselves with the investigation of the wonderful phenomena of heredity. Darwin first subjected them to theoretical scientific investigation and brought them within reach of the methods of physiology. The problem next presented itself of a systematic classification of the various phenomena of heredity and of adaptation, a formulation of their "laws," and an understanding of their complex mutual relations. The first attempt at this solution was made by me in 1866 in my "General Morphology." In the nineteenth chapter of this work, which analyses "The Theories of Descent and Selection," I attempted a general physiological explanation of heredity and adaptation by enunciating for the first the familiar facts of propagation, and for the second, the facts of nourishment (the change of material of tissues), as the *physiological functions* of the formation of species. I classified the multifarious phenomena of heredity under nine different laws, and arranged these into two series: (1) Five laws of *conservative heredity*, (the hereditary transmission to descendants of the characters received from parents and ancestors generally,) and (2) four laws of *progressive heredity* (the hereditary transmission to descendants of characters acquired during the life of individuals).* In the richly diversified phenomena of variation and adaptation I distinguished eight separate laws and also arranged these into two series: (1) Three laws of indirect variation or *potential adaptation* (nutritive change of the organism not expressed in its own formation but in that of its descendants), and (2) five laws of direct variation or *actual adaptation* (nutritive change of the organism which directly appears in its own formation).† I have collected the gist of my discussions on heredity and adaptation as they stood in the "General Morphology," and put the results in more popular form in my "Natural History of Creation." In eight different editions of this work I have striven to improve

*This article, sent especially by Prof. Haeckel to *The Open Court* for translation, is embodied in his Introduction to Semon's *Zoölogical Travels in Australia and the Malay Archipelago.*

* *Gen. Morphol.*, II, pp. 170–190.

† *Gen. Morphol.*, II, pp. 191–223.

these laws by constant correction of details, but my fundamental views of this subject remain as they originally were.* From here my views passed into many other recent works.

A substantial modification of the modern views of heredity was made in 1885 by August Weismann, the distinguished Freiburg zoölogist, to whom the modern theory of evolution is indebted for much valuable improvement. In a long series of essays which he condensed in his book entitled "Germ-plasm, A Theory of Heredity," published in 1892, Weismann attempts to establish *the continuity of the germ-plasm* as the foundation of the theory of heredity. He assumes that in every organism there exist by the side of each other two wholly distinct kinds of plasm, the germ-plasm as generative material, and the body or somatic plasm as the substance out of which the tissues of the body are developed. In the process of generation one part of the parent plasm is not employed in the building up of the infant organism, but remains behind unaltered. On this unbroken continuity of the constant germ-plasm is founded heredity, whilst variation or adaptation is produced by *amphimixis*, that is, by the mixture in sexual propagation of two different, individual generative materials. For this reason, in all histones or pluricellular organisms (metaphyta and metazoa), the heredity of acquired characters does not take place, whilst in unicellular protists (protophyta and protozoa) it is admittedly effected. The latter, Weismann regards as immortal, the former only as mortal.

Weismann's doctrine of the continuity of the germ-plasm and his attempt to explain by it heredity, is at bottom a *metaphysical molecular theory* like Darwin's pangenesis or my perigenesis of plastidules or the micellar theory of Naegeli.† Its success has been a wonderful one, especially in England. Also in Germany the number of its adherents seems to grow, whilst in France and in Italy, but especially in North America, it has met with the liveliest opposition. If we look over the lists of eminent disputants arrayed against each other in this significant strife, we shall see on both sides a large number of tried natural inquirers. Among those who have openly declared in Weismann's favor are Wallace, Ray-Lankester, Galton, Poulton, Wiedersheim. Among the opponents are to be found Herbert Spencer, Huxley, Gegenbaur, Fürbringer, Eimer, Claus, Cope, and Lester F. Ward. The new school which has sprung up on the basis of Weismann's theory, and has grown very rapidly, especially in England, is often called Neo-Darwinism. But this designation is unjustified and misleading, for "heredity of acquired characters" is just as essential and indispensable an element in the evolution theory of Charles Darwin as it was in that of his grandfather, Erasmus, and in the apparently still remoter theory of Lamarck. The difference in the conception of these two greatest banner-bearers of the theory of descent is simply this, that Darwin did not impute to progressive heredity so prominent a part as Lamarck, but put in the foreground the idea of natural selection which was unknown to the latter. When Weismann denies the heredity of acquired characters in any form, he is, in point of principle, just as much opposed to Darwin as he is to Lamarck.

So far as my own position is concerned, I have had no occasion, despite the great progress which the theory of heredity has made in the last twenty years, to alter in any essential point the principles of my conception of it which I formed in 1866 and presented in my "General Morphology." On the contrary, my uninterrupted employment with this fundamental principle of evolution in the course of the last thirty years has convinced me more and more of the correctness of that conception. I have, therefore, stoutly opposed Weismann's theory from the beginning, and recently emphasised our differences in the last editions of my "Natural History of Creation" (1889, p. 203,) and of my "Anthropogeny" (1891, pp. XXIII, 149, 836, etc.). Here is not the place to recapitulate all the objections which I made against Weismann's doctrines, and I shall restrict myself, therefore, to the following brief statement of them :

1) The hypothetical "continuity of the germ-plasm" is neither empirically demonstrable nor theoretically admissible. The recent discoveries relative to the exacter morphological behaviour of the karyoplasm and cytoplasm in fertilisation and in the segmentation of the ovum prove nothing in its favor.

2) The hypothetical division of the germ-plasm from the somato-plasm is neither empirically observable, nor theoretically tenable ; the profound *physiological correlation* of the two species of plasma, which is illustrated, for example, in the well-known effects of castration, also proves its *material continuity*.

3) The separation of the pluricellular organisms (histones) from the unicellular organisms (protists) is no absolute separation, and with regard to the special point of heredity not an essential one ; in fact, among protists which are pre-eminently monogonic there may be found the beginnings of different forms of amphigony, whilst among histones, that for the most part reproduce sexually, monogony also exists to a great extent ; in both groups the laws of heredity are different only in degree.

4) The unicellular protists (protophyta and protozoa) are no more immortal than the multicellular histones (metaphyta and metazoa) ; even in the simplest case the organic individual has only a limited

* Compare the eighth edition of 1889, pp. 157–237.

† Compare the *Natural History of Creation*, eighth edition, p. 198.

duration of life; when a cell is broken up by division into two filial cells, its individual existence is thereby destroyed. On the other hand, if we understand by immortality the continuity of the plasm in the chain of the generations, then all ancestral series, histones as well as protists, are in an equal degree "immortal"; in that case the immortality of the plasm is simply a special case of the fundamental cosmological law of *conservation of substance*.

5) Progressive heredity, as one of the most important foundations of phylogeny, is *indirectly* demonstrated by the whole empirical body of facts of comparative anatomy and ontogeny; we can explain the numberless phenomena of "adaptation" to the outside world in its real sense only by the assumption of this foundation.

6) Progressive heredity has long since been experimentally and directly proved by the experiences of artificial breeding; all experienced and expert practical breeders (stock-farmers, animal-fanciers, and gardeners) unanimously accept the heredity of acquired characters as an incontrovertible fact; only on the basis of this fact and by the exact employment of it can they successfully pursue their business.

We cannot enter here into a discussion of the extensive literature which the so-called Neo-Darwinism, more correctly termed *Weismann's plasm-theory*, has recently produced. A detailed refutation of this doctrine is given by the German, Theodore Eimer, in his work on "The Origin of Species" (1888); whilst an excellent general criticism of the theory has been made by the American philosopher and botanist, Lester F. Ward. There is space here only for special mention of one very important polemical writing against this theory, of recent date. Herbert Spencer, the acute and erudite thinker, who as a monistic philosopher has so greatly promoted the theory of evolution in the speculative field, has published within the last year in the *Contemporary Review* (February, March, and May, 1893) several essays entitled: "The Inadequacy of Natural Selection, and Professor Weismann's Theories." The weighty objections which Spencer here raises against Weismann's theory I subscribe word for word; they are in part the same which I advanced myself some time previously.

I also fully agree with Spencer when he extends his opposition to other recent modifications of the theory of descent, especially the doctrine of Naegeli and generally against all theories which seek to explain phylogeny by unknown *inner causes* as opposed to the familiar and mechanical *external causes* which are given us in adaptation and in the interaction of the organism with the surrounding external world. Here belongs especially that group of teleological theories which have accepted the so-called innate "tendency towards ends" (*Zielstrebigkeit*) of Baer, the internal "tendency to perfection" of Naegeli, etc., etc., and which in various forms always lead to the assumption of a mystical "creative force" or "phyletic vital force." Spencer, as a monistic philosopher, is perfectly right in rejecting, individually and collectively, these half-faced teleological theories, which are really out-and-out dualistic and mystical; and in saying that in preference to such assumptions it were much better to go back to the old myth of the special creation of the single species ("The Inadequacy, etc.,").

The question here at stake is so significant, and determines so completely our general view of the world that we must lay the greatest stress on a decision between the two following alternatives: either all phylogeny is a purely mechanical process and the development of organic forms takes place wholly without a tendency to ends, and is determined solely by the physiological activity of the organs themselves (heredity, adaptation) and their relations to the external world (the struggle for life, etc.); *or*, this is not the case and the genealogical history of organisms *is* one of a tendency towards ends, that is to say, a teleological process guided by a premeditated "plan of creation." In the latter case we shall have to return to the anthropomorphic notion of a personal creator. And the simplest course then is to abide with Agassiz by the old creation-myth of Moses. With Spencer I am of opinion that also the theories of evolution propounded by Weismann, Naegeli, Kölliker, Baer and the rest, will lead us back to this transcendent creation, and that we have simply to choose here between two alternatives: *either mechanical evolution with heredity of acquired characters, or no natural evolution whatever.*

The apposite examples which Spencer cites for the establishment of his monistic views are in a great part taken from the comparative anatomy and physiology of vertebrates, especially from the phylogeny of their members. I also had pointed out, even before Spencer, that this very province of phenomena furnishes a host of obvious proofs for the action of natural selection and for the heredity of acquired characters. These two great principles in no respect contradict each other, as has often been erroneously maintained, but act in concert; "natural selection" constantly employs in the "struggle for life," progressive as well as conservative heredity.

The phylogeny of the extremities of vertebrates is especially instructive as a proof of progressive heredity, for various reasons. On the one hand, the skeleton of the members, with their corresponding muscular arrangements, has been subjected, through their adaptation to different purposes, to the most various transformations; while on the other, the typical composition and arrangements of the parts of the skeleton and of

the muscles is more or less retained in this adaptation by tenacious heredity. Compare, for example, to take only a single class of mammals, the locomotor legs of most beasts of prey and hoofed animals, the leaping legs of the kangaroo and the jumping-mouse, the climbing feet of the pedimanous opossums and monkeys, the digging feet of moles and field-mice, the swimming feet of beavers and seals, the floating feet of sirens and cetaceans. We are astounded at the extraordinary multiplicity and perfection with which the members of all these mammals are adapted to their special functions; while on the other hand, the constancy in the arrangement and composition of their typical skeleton-parts proves the common descent of all. With respect to the details of osteological transformation, (for example, in carpus and tarsus,) Carl Gegenbauer's classical "Researches in the Comparative Anatomy of Vertebrates" are, before all, of the highest value. The gradual transformations which have taken place in the great class of Birds have been very exhaustively treated by Max Fürbringer in his careful "Researches in the Morphology and Classification of Birds."

All these great morphological phenomena can be explained only by the assumption of functional adaptation and progressive heredity; the special habits of life and the corresponding use or disuse of special organs have here produced by "teleological mechanics" the most astounding transformations, and that coincidently in all the portions of the members which are in correlation ("correlative adaptation"). These "acquired characters" are then transmitted by heredity to the descendants, established in the succession of the generations, and thus made substantial characteristics of the species. In this process selection has operated by way of promotion and control in no little degree. But natural selection alone, in union with Weismann's *amphimixis*, would never have been able to produce these marvellously appropriate adaptations. Spencer has very prettily shown, in his example of the jumping of the cat, how incompetent Weismann's theory is to explain such adapted transformations.

THE ORIGIN OF PROSTRATION.

BY E. P. POWELL.

It seems difficult to account for many of our spontaneities, and our customs, on any other ground than animal descent. A dog came to my place a few weeks since, evidently lost. When I saw him and approached, he faced me, and at once laid down in an attitude of submission. Not a muscle moved except his eyes. I went nearer and looked kindly. He half arose, and dragged himself half-way to me, and dropped again. I spoke in an easy tone, "Who are you." He moved his tail in a supplicatory, kindly way. His eyes were intensely interrogative. Would he have a welcome, or not? I said, "You look like a good dog; come here." He came with a bound to my feet; prostrated himself, and laid his chin on my foot. His eyes looked up with a pledge of loyalty. "Please sir, give me a home and I will stand by you truly." I said, "you shall be my dog. I will keep you. This is your home." He understood my looks, words, and gestures perfectly. He rose from his crouching attitude; shook out the dust; looked me in the eye for a moment, and then gambolled about me with intense delight. Our next ceremony was to share food. I took him to the house, and gave him his breakfast. Our friendship was sealed, and he became my faithful watchman.

What is this but the very same prostration and approach by degrees that we find among savages, and for that matter among civilised peoples—Aryans not always excepted? The bold uprightness of a few peoples is an innovation on a custom almost universal among human beings. The Turanians, I believe, both the more barbarous as well as the Chinese, are accustomed to express fealty by absolute proneness in the dust; while some of the Orientals place dust on their heads. The idea of the dog seems to be practically this complex one, "If you will accept my services, and allow me a home, I will be loyal to your person and property." In the case referred to, the dog, a fine fellow, immediately assumed the position of guardsman for my property, and myself. He quickly distinguished the limits of my land; and allowed no intrusion. Here was a treaty of alliance and friendship, following an act of submission to a superior. In this treaty was involved the conception of individual rights of property. The dog clearly comprehended this, and fully believed in the right of property.

So I get from my canine friend evidently a very complex set of ideas, and with it a happy method which has been inherited by us, and perpetuated in all human races. The submission of a cat is very similar; and I have a case in hand. Walking in my vineyard one day, some years since, my attention was drawn to a very large and grand-looking feline, that at first I supposed to be a neighbor's cat. But he was determined to draw my attention. He did not come to me; but, standing at a distance, apparently desired something. Then drawing slightly nearer, he laid down; and by cautious approaches at last touched me. I spoke kindly to him, and lifted the huge fellow in my arms. Up to this moment he was every way a suppliant. But when assured of a welcome, a tremulousness showed at once that he was hungry. I carried him to my house, and fed him. He ate voraciously; and had been evidently half-starved. When satisfied he began a quiet expression of the spirit of adoption: explored the place, and showed in all cat-ways his gratitude and satisfaction. "Colonel," as we called

him, had a big brain, and succeeded admirably in giving me an illustration of the same natural principle of alliance that I had seen in the dog. It was not only allegiance to the family, but a personal friendship that was declared and formed. To his death "Colonel" was my special comrade. He was not born into our family, but was adopted. The method of introduction was not unlike the primitive forms of adoption into patriarchal families: by prostration, pledge of fealty, and immediate assumption of duties in relation to the household and family. In our domesticated animals, then, I find the antecedent of all those forms by which men have been accustomed to form alliances.

The last act in every case was a touch. The dog first laid his chin on my foot, then he touched my leg and my hand with his nose; and when I sat down by him he kissed my face. The universal habit of greeting by a touch of some sort is here evidently of animal origin. With their own kind, noses are touched; but with us they touch our hands or our faces. "Colonel" rubbed himself against my legs. Lower human races, as the Fiji-Islanders, touch or rub noses. African tribes touch noses and lips. Europeans nearly always kiss. English and Americans draw back slightly and are content to touch hands. The Chinese, for sanitary purposes perhaps, and still more to express unworthiness, shake their own hands. I have watched this animal propensity still farther. I have a dog that longs much to run with the carriage. When driven back she sneaks homeward; and when overtaken lies down and offers a paw. This offering a paw is associated by her with forgiveness and good-will. As soon as it is accepted by us she evidently considers the contention ended, but does not rise until told to do so.

The analysis of touch in the cases above noted, shows two causes, (1) a tendency to embrace; and embracing means no more nor less than a desire for amours. Under all love is physical attraction. Nature, that is always differentiating, is also always uniting and blending. Animals refuse to touch except they like. Other creatures are ignored, or bitten, or wholly devoured. To touch those we love has a hundred grades of pleasure. The animal illustrates this exactly as we do. I believe those are right who consider promiscuous kissing or even promiscuous hand-shaking as an abuse of an honest and decent animal heredity. It is a confusion of individualities. In the case of babes and children, it is monstrous to allow them to be fondled by all sorts of organisms. Our social communion might thereby easily drop into social confusion, or even debauchery. But (2) the animal touches also to gather a knowledge that, with all creatures, comes through the nose. The great sense-organ of man is the eye; of the dog and cat and horse it is the nose. It is impossible for us to comprehend this directly and fully. Yet a thoughtful study of our emotions will show us that we have not entirely lost this animal basis of judgment; that in fact we do tell ourselves very much of other people by the nose. Blind persons distinguish their friends by the smell of handkerchiefs or coats. We all do the same unconsciously. Our unconscious sensations and unconscious judgments form a splendid field for research, and a very rich one. We know far more by smell than we suppose. The vulgar classes that revel in a confusion of odors have apparently become degraded in senses as in habits. Their basis of social judgment is below that of the animals. I observe that those who have fortunately had their senses keenly educated are accustomed to judge of persons by odors. It should not be a lost power. The eye does not possess the power to cover the subtle relation of individualities; neither does the ear. The finer sense is that of smell; dishonored, as it has been, and despised, as it should not be. In an article, published in No. 245 of *The Open Court*, I referred to the fact that Australian children possess the dog sense-power of trailing people by scent. I have experimented with some care and am confident that this power is to some degree in all of us. Strong attachments are not so rigidly ideal as we like to suppose. There is a physical basis or sense basis to all our likes and dislikes. It is this which underlies the demand of refined people that their friends shall be cleanly. Our social ties have created the maxim that cleanliness is next to godliness.

In reality, then, our physical habits are found to have an animal origin. Our hand-shaking is but little more than the friendly nose-touch given by animals that meet each other. And our kissing is of the same sort. The distance is now not great till we find the origin of dancing. It seems at first glance very curious that any one should be willing to spend hours in making motions, with no end beyond the motions. But there is nothing in nature more universal than the dance. At this moment a half-dozen flies are moving in most graceful curves under my chandelier. They circle about each other in most delightful lines, and occasionally touch with a quick dart. I have no doubt that this touch is slightly electrical and pleasurable. Three kittens are outside my balcony on the driveway; and I cannot suppress a conviction that they are enjoying motion as an end. They are delightfully graceful, moving in considerable rhythm at times, and on the whole, like the lambs over the fence, surpass the grace of the ruder classes of dancers. It is a crude notion about the fire-flies, that their exquisite flights are purely for sexual attraction. It needs but a few moments' observation to determine that these charming birds of the insect world are enjoying rhythmic motion. The throb of light is the pulsation of their

pleasure. They show their happiness. The natural dance is a pure case of animal inheritance. Its artificialities and obscenities we can claim for ourselves, as the result of the more creative imagination of the human mind.

Let me add, in a note supplementary, that it is not at all impossible that much that passes for mind-reading is really dependent on a keenly educated sense of smell. I am myself so conscious of the distinct odor of a few persons that I can trace their passage for several feet, or from room to room. That this power, belonging to savage ancestors in some cases, may be regained by reversion and education is certain. To what extent we may use this sense consciously we cannot yet determine. Unconsciously there is also room for much self-deception, by attributing to a purely psychical cause that which catches a directive suggestion from a physical organ.

CURRENT TOPICS.

The Wilson Bill having passed the House is now before the Finance Committee of the Senate, and the "consensus" of Washington gossip is that when it comes out again it will be so changed in all its features that Mr. Wilson will not know it. In addition to that, the suspicion is growing that no bill for the reduction of tariff duties can ever pass both houses of this Congress, because the "interests" are too strong. One senator is interested in iron, another in coal, another in wool, another in lumber, and almost every constituency is interested in some form of "herrings" which it wants protected at the expense of all the others. To the man interested in "herrings" of any kind the tariff question is outside of reason, science, or argument; and not until the Government finds itself in serious financial distress will any visible impression be made upon the protective system. Borrowing money in time of peace to carry on the Government is the next thing to soliciting outside relief. It is a sign of bankruptcy, not only in finances but in statesmanship. It can only be a temporary makeshift, for at last the revenues of the Government must be obtained from the resources of the nation in the form of taxes. As it was in England, so it will be here. When in 1841 the Government of that country found itself with an empty treasury, the ministers resolved that they must either borrow money or lower the tariff on imports. They decided to lower the tariff, and thus by encouraging imports increase the revenue.

* * *

As all forms of direct taxation are unpopular, because we would rather pay ten invisible dollars than two dollars that we can actually see, the Government is compelled to collect a large portion of its revenues from taxes levied on imported goods. As the income tax is unpopular because of its inquisitorial character and the unfair proportion of it that the honest man must pay; and as the Internal Revenue taxes on whiskey, tobacco, and beer, are already as large as these "interests" will permit, there is nothing but the reduction of the tariff as a revenue-raising policy. It appears by this morning's paper that Senator Jones of Arkansas, a member of the Senate Committee on Finance, at yesterday's meeting proposed to increase the tax on beer, "and," says the reporter, "there is not the slightest doubt that his proposition would have been adopted by the Committee had not the attorneys of the National Brewers' Association given notice to Mr. Voorhees the Chairman of the Committee, as they did to Mr. Wilson, that such legislation would be considered offensive and antagonistic to the brewing and saloon-keeping interests throughout the country, and would call forth their hostility at the next congressional elections." With so many obstacles in the way of raising revenues by direct taxation, it must be raised by the indirect method of a tariff on imports; and ordinary shop-keeping sense will require that in levying customs duties, the work must be done in such a way as to produce the most money. No matter what party is in power, the Government must have money, and it can only get what it needs by lowering the duties upon imports.

* * *

Whenever I take a ride in the dismal hearse that goes by the name of a street car, I am tantalised and tormented by an advertisement that glares upon me from the panels just above the windows proclaiming with reckless audacity that at a certain pie factory in Chicago they make "pies like your mother used to make"; the most impossible miracle that ever was attempted by any mortal woman, or mortal man. Make me a pie, O, piemaker, like my mother used to make, and then draw on me for fifty thousand dollars. A quarter section of such a pie as that would roll backward off my shoulders more years than I care to tell. It would seat me again at the little wooden table in the old home radiant in the glory that only a mother's presence can give to any home; and as the song says, it would "make me a child again just for to-night." It is not in the power of human genius to make a pie "like your mother used to make." Take all the cooks in Queen Victoria's kitchen, and give them the finest flour, and the freshest eggs, and the richest butter and milk, and rare fruits ripened in the sunshine, and spices from Arabia, and every delicious ingredient of a royal pie; then bribe them with a coronet apiece and a pension of two thousand pounds a year; and after all, they will not be able to make "pies like your mother used to make." The feat is physiologically and psychologically impossible, because nobody but your own mother ever can or ever could give to the elements of a pie that ethereal flavor, and that spiritual potency, which makes it, for you at least, a memory of home for ever. Unless all their ingredients are mixed with her love, touched by her own hands, and seasoned with her own spirit, there are no "pies like your mother used to make."

* * *

Can a man be fairly held responsible for thinking what he never said? This is a problem for the casuists, and the solution of it is of some importance to the Rev. Thomas E. Sherman, a priest who recently delivered a lecture in Chicago in defence of the Jesuits, as he had a perfect right to do. Mr. Sherman's father and grandfather were famous men, and this it is that gives to his lectures an interest they would not otherwise possess. Referring to the mob violence inflicted on some ex-priests who attempted to lecture under the auspices of a society called the A. P. A., Mr. Sherman is reported to have said: "For my own part, I have no apology to offer for the acts of Catholics in vigorous protests against those wholesale venders of infamy. The father who slays the corrupter of his child must be left to the Almighty; the man who shoots an anarchist on sight is a public benefactor. These ex-priests are anarchists of the worst stamp." This was printed in the *Chicago Herald* from the manuscript copy of his address furnished by Mr. Sherman to that paper, and yet he never uttered the words at all. They were in the type-written sheets of another lecture, which he was preparing for some other occasion, but in handing his copy to the *Herald* he had mixed the lectures up, as Little Buttercup mixed up the babies in the play. Evidently the *Herald* is not responsible for publishing the words, for they were in the copy given to that paper; Mr. Sherman is not responsible, for he never uttered them, and there is no evidence that he ever would have spoken them at any time; and thinking at least, is free. Mr. Sherman having proved himself innocent of speaking the words, will he now disown the sentiment?

An intricate legal puzzle is now tying into double knots the brain convolutions of all the lawyers in the State of Mississippi. It appears that William Purvis, a negro, was tried for murder, convicted, and sentenced to be hanged. The sentence was affirmed by the Supreme Court, and on the 7th of February, at Columbia, the sheriff proceeded to carry it into execution At 12:27, in the presence of a large company, the drop fell, and the culprit was "launched into eternity"—almost; for the rope broke, and Purvis fell to the ground, without having sustained any serious injury. The sheriff and his deputies were proceeding to hang the prisoner again, when a question arose as to whether or not Purvis could legally be hanged a second time. It was contended by some of the congregation that a man was entitled to be hanged right "even if he was a nigger"; and as the breaking of the rope "was not the nigger's fault," he ought not to be hanged again. It was "allowed" that if he had been responsible for the rope, the case would be different. It was conceded that Purvis had not fired the shot that killed Mr. Buckley, but he was merely one of the riotous party out of whose ranks the bullet came; and the Rev. Mr. Sibley, of the Columbia Methodist Church, much to his credit, pleading on the side of mercy, said, that as the "nigger" was only half guilty, he ought to be only half hanged. The end of it all was that the sheriff left the whole matter to "a vote of the spectators," and they decided that the "nigger" ought not to be hanged again. Thereupon the sheriff ordered Purvis back to jail, and the next day he took him to Meridian, and from there he telegraphed the facts to Governor Stone. The question bristles with law points. For instance, the day appointed in the sentence having gone by, can a new sentence be passed, and if so, who is to pronounce it? If not, can Purvis be tried again, and thus be put in jeopardy a second time? If not, can the sheriff be hanged in his place?

* * *

A cheer for the "Kearsarge" before she goes to pieces on the reef of Roncador! Farewell, old comrade, beaten at last, not in fair battle, but by a treacherous enemy hidden in the sea. The wooden hulk may be broken and scattered by the waves, but the soul of the old "Kearsarge" is immortal, an inspiration to all our surviving ships and their sailors, the sons of the old sea kings. Aye, and to the soldiers, too, as it was in that summer-time of battles in 1864, when around our camp-fires in the night we spoke of the sea-fight over there by Cherbourg, while France was looking on from the hills along the shore. Every shot from the "Kearsarge" which struck the enemy was another battle won, and when the "Alabama" sunk she carried slavery down with her to the bottom of the sea. The war history of the "Kearsarge" we know, but how much peace was in her guns is a secret we shall never know. There was warning in their voices, and that warning kept the peace, for the threatened interference by outside nations in our quarrel was indefinitely postponed. Had Winslow struck his flag that Sunday morning in that fight, we might have lost some other battles, and our cause; for aspiring foreign powers might then have openly declared against us. The victory of the "Kearsarge" was a moral reinforcement to Grant and Sherman and to the National forces everywhere, while the banner of the Union was lifted higher in the sky. In a few years at farthest the "Kearsarge" must have been laid up in hospital like a decrepit sailor, or have been ingloriously broken up for junk; but as it is, she dies on duty and at sea, where the "Kearsarge" ought to die.

BOOK NOTICES.

Romance of the Insect World. By *L. N. Badenoch*. With Illustrations by Margaret J. D. Badenoch and Others. New York and London: Macmillan & Co. Chicago: A. C. McClurg & Co. 1893. Pp. 341. Price $1.25.

In the author's view, the "romance" of the insect world is to be sought in the metamorphoses of insects, the food of insects, hermit homes, social homes, and the defences of insects by color, of which subjects the work accordingly treats. These topics do indeed involve many strange and interesting features which may be justly termed "romantic," in a certain sense of that word. The book is written in a charming, facile, yet exact, style, and is exceptionally well illustrated, so far as the accuracy of the drawings is concerned. In typographical execution the book is also exceptionable, and may be recommended without reserve to readers who wish, not to plunge deeply into the natural history of the insect world, but only to spend a few occasional hours in pleasant companionship with it. A glossary of scientific terms is appended to the volume, which is also supplied with a good index. μκρκ

The Distribution of Wealth. By *John R. Commons*, Professor of Economics and Social Science, Indiana University. New York and London: Macmillan & Co. Chicago: A. C. McClurg & Co. 1893. 258 pages.

Those who have time to study the subject in a technical way, will find this book useful, and some parts of it are presented in an easy and popular style that anybody can understand. It is not more abstruse than other works of its kind, but it abounds, as most of them do, in subtle definitions and hard sums, not in mathematics exactly, but in logic. By the dissolving power of applied metaphysics, a house, or a tree, or a beefsteak evaporates into an economic formula, which very often conceals and protects a fallacy. For instance, in this book we learn that "a dwelling-house is in no sense social capital. When used by its owner, it is not capital, but consumption goods; but when leased by its owner it is private capital." Also, we are told that "a tree standing in a forest is land, but as soon as it is felled it becomes capital"; and a beefsteak appears to be "social capital" until it is cooked and ready to be eaten, because up to that time "utility is being added to it." Now, that sort of science is worth learning, undoubtedly, but is it worth enough to pay for the study?

It often happens that the analytical and learned explanation of a word is not so accurate as the meaning given to it by the common people, who know nothing about social or political economy; and for an example of that let us take the familiar word "rent," which everybody understands except the political economists who write so much about it and who refine it into a verbal mist. According to this book, "the rent of land is a share of the social income which goes to a certain class, not on account of the share this class has had in producing that income, but on account of the mere ownership of the conditions for its production."

The above definition of rent, besides being too much diluted, is not correct except in particular cases; as a general proposition it is unsound. The tenant farmer without any knowledge of the books, gives the correct definition when he says, "Rent is what I have to pay the landlord for the use of the farm." When asked if the rent is not "a share of the social income" produced on the land, he says, "No, the landlord gets his rent whether I make a crop or not. If I farm the land 'on shares,' his rent will then depend upon the crop."

Phrases of occult meaning used as axioms confuse the reader instead of instructing him; and when he studies them by given examples, he sometimes finds that the fact and the formula do not perfectly agree, and of this the following paragraph will serve as an illustration: "Nature supplies some needs. The most extensive in abundance, with material already prepared, as air and sunlight. These are free goods and their marginal utility is nothing. Other goods are scarce and can be obtained only when human labor controls and exploits nature. These are economic goods." The distinction is too fine for practical uses, and the evidence to support it fails. Air and sunlight are not more free than any other gifts of nature. Air and sunlight are free in public parks, but in private parks they belong to the owner of the land whereon they

rest. In the country, air and sunshine are cheap enough, but in the city they are dear; and for that reason the poor man must live in the slums. He cannot live in the country, for he must be near his work, and he cannot afford to pay the high rents charged for air and sunlight in the town. Even in the slums the rooms that receive the most air and sunshine yield the highest rent. The owner of the land owns everything above it and below it, from the centre of the earth to the sky, the air and the sunshine, too.

The superficial defects above noted, if they are defects, are common to nearly all the text-books on political economy, but in spite of them this work by Professor Commons contains much valuable information drawn from those facts of human life on which is founded the science of political economy. His critical examination of certain accepted economic theories and maxims will compel some of them to be revised and perhaps abandoned altogether. M. M. T.

In connexion with Professor Haeckel's article in this number of *The Open Court*, and in view of the great interest which the theories of Weismann have awakened, especially in this country and in England, it will be interesting for readers to learn that Prof. George John Romanes has recently published a small work supplementary to his "Darwin and After Darwin," entitled *An Examination of Weismannism*. Professor Romanes was prevented by a severe and protracted illness from completing Part II of his work "Darwin and After Darwin," which was to deal with post-Darwinian theories, including, of course, the theories of Weismann; but as the portion dealing with Weismann was already written, and during the interval which thus elapsed Weismann's theories had been considerably extended and modified, as is seen in his recent works on *Amphimixis* and *Germ-plasm*, Professor Romanes thought it best to embody his special criticisms of Weismann *in a separate volume*, to be published at once. Professor Romanes's examination is mainly restricted to the elaborate system of theories which Weismann has reared upon the fundamental postulate of the non-inheritance of acquired character, but does not treat especially of this postulate itself, reserving its examination for his next volume. It is true that it is with this postulate that Weismann's name is mainly associated, but as Professor Romanes claims, his merit is that only of having called general attention to the subject and aroused a world-wide interest with reference to it; as to the postulate itself, it is one which has always been prominent in Darwinian considerations. Professor Romanes also claims to show that the question of the transmission of acquired characters was presented early in the seventies by Mr. Francis Galton in his *Theory of Heredity*, and answered by him almost in the same manner as Weismann did about ten years later. We shall not enter into the details of the criticisms of this book, which, it is unnecessary to say, are presented in the same spirited and vigorous style which distinguishes all of Professor Romanes's works and renders them such splendid reading. A glossary of technical terms is appended to the volume which will be of great help to the reader, since the terminology of this branch of natural science is multiplying so fast of late that for comfortable reading something of this kind is absolutely necessary. The book is well indexed, and contains also an excellent portrait of Weismann. (Pp. ix, 221. Price $1.00. Chicago: The Open Court Publishing Co)

NOTES.

Among recent noteworthy criticisms of Professor Weismann's theories our readers may be referred to that of Prof. Lloyd Morgan in *The Monist*, Vol. IV, No. 1, entitled "Dr. Weismann on Heredity and Progress." In a letter to the Editor, Professor Weismann says that his position is not correctly represented in Professor Romanes's book (see its review in this number), but he expects that all such misunderstandings as those of Mr. Romanes and Mr. Spencer, the latter of whom he answered in *The Contemporary Review* of last year, will in time correct themselves. As to Prof. Lloyd Morgan's objections, he says these appear to him to demand a consideration, and he will in time reply to them. At present, he says, he is too much occupied with other work, but hopes he will soon be able to contribute an article on the subject for *The Monist*.

To-morrow, February 16, will be the sixtieth birthday of Ernst Haeckel. His friends, associates, and disciples from all parts of the world, having long had in mind the propriety of a personal recognition of Haeckel's great services, have decided to take advantage of this occasion and to place as a permanent memorial of the distinguished inquirer a marble bust of him in the Zoölogical Institute of Jena, the scene of his long and fruitful activity. The celebration will take place on the seventeenth. At noon the bust will be unveiled, and an address made by the Munich zoölogist Hertwig, Haeckel's oldest pupil. Dinner will be had at the Bear, and in the evening a grand Commers will be held. It will be a day of universal festivity in the old University town, in which friends, students, and colleagues will all joyfully participate. We trust that the celebration will be worthy of the occasion and the motives which prompted it; and sincerely hope that the great investigator thus so justly honored will continue for many years the work which he has done for the advancement of science. We join the friends who have the good fortune to be with him in tendering our well-wishes and congratulations.

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SCHOPENHAUER, THE MAN AND THE PHILOSOPHER.

BY G. KOERNER.

Several articles on Schopenhauer have been published in the *Revue des deux Mondes*, the last of which is of special interest and appeared in September, 1893. Considering the chauvinism which since Sedan has shown itself not only in the masses of the French people, but also in leading, otherwise respectable, journals, in books and speeches, the *Revue des deux Mondes* has manifested upon treating German affairs and particularly German literature an impartiality worthy of its high standing. For several years past it has devoted many pages to German philosophy, and Schopenhauer has been reviewed by some of its best contributors, such as Brunetière and Bourdeau.

The present paper in the *Revue des deux Mondes*, to a translation of which I desire to invite the attention of the readers of *The Open Court*, is, as the title confesses, not quite an original one, but is based in great part on the eighth volume of the "History of Modern Philosophy," by Kuno Fischer of Heidelberg, which volume goes by the title of "Arthur Schopenhauer."

Schopenhauer, the *Revue* states, was born on the 22d of February, 1788, and after a short life of roving and travelling, he took up, in 1831, his permanent abode in the city of Frankfort where he ended his days. He was yet unknown, though he had in the month of December, 1818, published his system in a book which has made an epoch in the history of philosophy. That book, from which at a later day so many thinkers, writers, and artists have drawn instruction and inspiration, did not meet with the slightest success. Of the eight hundred copies printed, ten years afterwards one hundred and fifty remained on hand, and one hundred were cut up for waste-paper: the edition was never exhausted.

As no man felt more vividly what he was worth and was less master of his imaginings, Schopenhauer charged his misfortune to a vast learned conspiracy of the University professors of philosophy, who had come to an understanding to kill him off by their silence, and who forbade Germany to pronounce his name. He would have done better if he had said to himself that he had come too soon, that he had anticipated time. During the first half of this century optimistic rationalism was in vogue in Germany. The universal reign of reason was proclaimed and it was found everywhere, in "things" as well as in living and reasoning beings, in human existence, even in politics, in nature itself, on earth as well as in heaven. It was said with Hegel "that everything that exists was rational, that history was a progressive evolution, the progress of conscious liberty."

A philosopher who proclaimed that the world was created by the fatal mistake of a blind and unconscious Will, which is the origin of the All, would at that time have been considered as a sorry jester or a melancholic fool. In a passage in one of her books, Madam de Stael had declared, just as Schopenhauer has, "that the will which is the life, the life which is also the will, contains the whole secret of the universe and of ourselves," but she had not said that the will is the misfortune and the original sin; she had not reproved the creative Demon, she had not, as Schopenhauer, when pointing out to the creator his works, shouted "How didst thou dare to disturb the sacred quietude of the nonentity (*néant*), to generate a world which is nothing but a vale of miseries, of tears, and of crimes?"

I may be allowed to suggest very timidly (for I do not pretend to be at all versed in philosophical lore) that M. Volbert,* the author of the essay, has done Hegel an injustice respecting the dictum, that all that is, is reasonable. It appears to me that Hegel did not mean to say that the present state of things could not be any better, but simply that it is the inevitable result of all events since historical times and must therefore be accepted as a necessity; the very next sentence quoted by M. Volbert from Hegel: "that history is a progressive evolution," seems to sustain this view. It must be admitted, however, that Hegel, inasmuch as he advanced his system early in the century when an absolute or paternal despotism prevailed throughout the greater part of Europe, was generally considered by all liberal-minded people not only as an advocate of conservatism, but of despotism. Yet his doctrine was in truth a double-edged sword. To-day a king might rule absolutely and on the morrow a popular rising might dethrone him and send both him and his adher-

* G. Volbert is, I believe, the *nom de plume* of Victor Cherbulliez, a Geneva Swiss.

ents to the guillotine. That revolution would then exist and be as rational as the overthrown despotism. It was not very long before the reactionary parties denounced Hegel's philosophy as revolutionary, while it was strongly advocated by the radicals.

"Times changed," M. Volbert continues, "and doubts arose whether reason was the sole arbiter of human destinies. The nations had by patient efforts and in the sweat of their brows obtained a part of their liberties; they had conquered claims, which, the moment they had won them, they underrated, afterwards to wonder why they had wished for them, and to discover that hope gives us more pleasure than fulfilment. Sciences had made marvellous progress; they told the people that history resembled fairy-tales and promised to transform the world. But in spite of their admirable inventions, it was found that the sum of good and bad remained nearly the same, that neither railroads nor telegraphs, nor chemistry nor physical knowledge could cure heart-woes. Industry worked wonders, political economy was asked to do the same, but it declared itself powerless. The old traditions, the old customs had been lost, and people became disgusted with the new ideas as well as the old ones; they did not know how to replace them, but waited for something that did not come. It seemed that anything was possible, and it was as hard to be happy as before the invention of the steam-engine. There was much dreaming, and in consequence the nerves had become more irritable, the imagination more excited and disturbed. Satisfied desires created new ones, at no time was the world more given up to pleasure and more sensible to privations. The sages who were content with little did not dare to agree that they were content, and with a mixture of vanity took glory in expressing an inexorable *ennui*. A pessimistic philosophy was henceforth sure of winning the public favor. Schopenhauer dethroned Hegel, became the philosopher *à la mode*, and when he affirmed that everything was fiction, lie, idle show, the proposition was easily admitted, and his dictum:

'Betrug ist Alles, Lug und Schein,'

was repeated by his followers.

"He had well calculated that his day would come, and his sudden reputation gave him more joy than astonishment. In a short time this man, so long ignored, at sixty years of age, had become a celebrated writer, admired and worshipped. People came from afar to see him, to solicit audiences, were proud to dine near him at the table of the Hôtel d'Angleterre. The ladies, the military officers stationed at Frankfort studied his works and became infatuated with this prophet, so long unknown. His birthday was celebrated. From everywhere flowers, presents, addresses in verse and prose were sent him. Some compared him to King Arthur of the Round Table, others proclaimed him 'the emperor of German philosophy.'" So, Monsieur Volbert.

The writer of this paper, a native of Frankfort, lived for more than a year not far from Schopenhauer's residence, after the latter had moved there in 1831, but was not made aware of the vast ovations to the philosopher which the essayist of the *Revue des deux Mondes* so vividly describes. He probably refers to a later period, but it is hardly probable that the ladies became infatuated with his doctrines and smothered him with flowers and sent him presents and addresses, since he has in all his works treated the fair sex almost brutally, hardly allowing them to have souls. But M. Volbert, as far as style is concerned, is a typical Frenchman, and like all Frenchmen delights in exaggeration and high coloring. "The first time," continues the Review, "that one of his devotees thought it proper to kiss his hand he uttered an exclamation of surprise, but soon accustomed himself to this kind of ceremony, and when he heard that some rich man, who had succeeded in getting the philosopher's portrait, proposed to erect a chapel as a shrine for the sacred picture he merely observed: 'This is the first which is consecrated to me; how many will there be in the year 2000?'"

After his death his glory continued to increase, and spread over the world; his works were translated into all languages. But the Germans are a highly critical people, and their infatuations are often followed by rude reversions. One is betrayed mostly by one's friends. Mr. Gwinner, the testamentary executor of the illustrious dead, thought it proper to write a minute and indiscreet biography of his master which looks much like an indictment. What injured, however, Schopenhauer still more, was the publication of his correspondence, wherein he paints himself as he was. The man appeared unpleasant, and it was asked whether his philosophy was to be taken in earnest. It was more closely examined and found incoherent and full of contradictions. It is easy to discover such inconsistencies in so very complex a system, where the idealism of Kant is amalgamated with the theories of Cabanis and Helvetius, the metamorphosis of Lamarck with the Platonic doctrine of eternal ideas and permanent types, the most abstract and subtle æsthetics with a psychology, which teaches that our thoughts are the secretions of our brain, and what more should I say, the irony of Voltaire with the ecstasies, the remorse, and unspeakable tenderness of a Hindu Messiah! *Das Gebäude*, it was said, *ruht nicht Stein auf Stein.* That is going too far. "You cannot get rid of a man," as M. Brunetière has well written, "who has uttered words which will never be forgotten." Kuno Fischer also recognises that his system is very inconsistent, but he renders justice to the originality of the great thinker, to his ingenious and profound views, and his

remarkable power of analysis. Jean Paul, who read him when nobody else did, compared his first book to those sombre lakes of Norway, enclosed on all sides by dark walls of rocks and on which the sun never shines, over the surface of which no bird ever flies, no waves tremble, but whose depths in clear nights reflect the starry heavens. He added: "I cannot but admire the book. Fortunately I do not accept the conclusions." That is nearly the judgment of Professor Fischer.

But the contradictions which have been pointed out in his philosophy do him less injustice than his carelessness in regulating his life according to his doctrines. Most of the philosophers have had their weaknesses, inconsistencies. No one would require them to be heroes, grand characters, the incarnations of an idea, such as the Pascals, the Spinozas, the Fichtes. But Schopenhauer seems to have taken the mischievous pleasure of contradicting in many things his own maxims and principles. Read his writings, his letters, and you will find that you have to do with two persons resembling one another in nothing. Leopardi, in describing the miseries of this world, had felt them. It is from a lacerated heart martyrised by destiny, which starts that immortal plaint, never heard without deep emotion.

The pessimism of Schopenhauer, according to the *spirituelle* expression of Mr. Kuno Fischer, is "a pessimism without pain; he was born *coiffé*." And although he saw the light of day on a Friday, of which he complained, he was in fact a Sunday-child (*ein Sonntagskind*), a favorite of the gods to whom had been vouchsafed the best things of the earth, all the gifts of intellect, a complete independence, all the leisure for cultivating his faculties, a determined vocation, which he had not to seek, works that were to give him a name, and up to his last years an indestructible health, the sleep of a child, an old age warmed and illuminated by the sun of glory, and ending by a sudden and gentle death. And indeed he did not ignore the advantages with which he had been favored. How often has he boasted of his genius, of his robust health, of his independence, of his works, and even of his shapely form. And this fortunate man blamed the Supreme Being for not having made him still more happy by conferring on him some big benefice and his sweetheart, Miss Fiedler. "But after all," he said, "such as I am with six hundred and thirty shillings income, I am still obliged to Him." He had a great deal more than an income of six hundred and thirty shillings, he could easily do without a big benefice, and if he did not marry Miss Fiedler it was owing to his horror of marriage.

Could it be said that he waited for glory too long, that by the injustice of his contemporaries and by his ill success with his works, his imagination had become darkened? When he was thirty-three years old, before he had written a single line and had no title to distinction, he had said to Wieland: "Life is a sorry thing (*eine missliche Sache*), and I will employ mine to meditate upon life." But, on the other hand, it cannot be believed that his pessimism was a mere sham, a hypocrisy, or a fixed literary prejudice. He had seen that valley of tears which he painted, but it was only in idea; and it had appeared to him with such luminous clearness that he could not help finding it beautiful, and feeling that his lamentations were mixed with a secret voluptuousness. "The grand tragedy," Fischer tells us, "was played in the theatre, and he was in a very soft orchestra seat, his spectacles in hand serving him as a microscope, and while a number of spectators, forgetting the play, went to the *buffet*, he followed with strained attention all its incidents. No one at that moment was more serious than he, no one had a more penetrating look, after which he went home, feeling at the same time a profound emotion of sadness and joy, and then he told what he had seen."

It is a custom of philosophers at dinner, (especially towards the end of it,) to amuse themselves by discoursing upon all the horrors afflicting human kind from Australia to the Arctic Pole. This indulgence in abominations is very amusing, it is a pleasure which sedentary burghers and parish priests, who only know their own church-steeples, have no idea of. But a still greater pleasure is it to have a warm and strong imagination and the gift to make others see what one has seen oneself or fancies to have seen. Schopenhauer was convinced "that the world was a place of penitence, a colony for convicts," and he took as much pleasure relating the miseries of mankind as any English novelist in describing the prisons or the poor-house. The one who better than any one else has represented the gloomy silence of the Norwegian lakes has naturally a taste for dismal and desolated landscapes. Study the letters of Schopenhauer and you will be convinced that if he had been less of a pessimist, he would have been less happy. Who could on that account make a criminal charge against him! This philosopher has the sincerity of an artist, and that is indeed something.

Amongst the inconsistencies his enemies charge him with, there is one which does not at all shock me. "If he had killed himself," they say, "we should have believed in his good faith." That is indeed asking too much, and I have never understood that pessimists, in order to prove their doctrine, should be required to shoot off their heads. There was once, if I mistake not, an English translator of Lucretius who wrote at the margin of every page of his manuscript, "*Nota bene*, after finishing this translation I am going to kill myself." He finished it and killed himself, proving thereby that he was a man of his word. But when Schopenhauer is blamed for not having acted that way,

one forgets that on that point he was in accord with his doctrine, and that he had explicitly condemned suicide. Had he not declared that the sage must try to suppress his will to exist, that the unfortunate who kills himself, far from killing his will, ceases to live because he does not cease to will, but only attempts to put an end to his sufferings? "The suffering," he said, "is the supreme mortification which leads to resignation and to release, and a man who commits suicide is like a sick man, not having the courage to submit to a painful but salutary operation, prefers to retain his malady."

Not only did he never have a thought of destroying himself, but he occupied himself all the time with preserving himself; few people have taken better care of their precious persons and have been more attentive to defend themselves against every accident. Fear of the small-pox drove him from Naples; he fled from Venice because the snuff used there was poisoned; he left Berlin to escape the cholera. For a long time he was in the habit of not going to sleep before having placed a loaded pistol under his pillow. He had his rooms on the ground floor in order to be quicker in the street if the house took fire. Only with his own razor was he to be shaved, and for fear of drinking out of an infected tumbler he always carried a leathern cup in his pocket. Mr. Bordeau was right in saying that Schopenhauer could have applied to himself the words of our old satirist, "I fear nothing but danger." But these are not characteristic traits; they belong to physiology and heredity. He was a born maniac and not without cause.

His grandmother on the father's side had been insane; so were two of his uncles, and his father was eccentric. From the first months of his mother's being in the family way, his father, Henry Floris Schopenhauer, had asserted that she would bear him a son, that this son would be a great merchant, that his name should be Arthur, and as he was an Anglomaniac, he concluded that Arthur should be born in the skin of an Englishman. To accomplish this he took his wife to London, but hardly had he established himself there when he changed his mind, and, in a bad season, the sea running high, he took her back again to Danzig, where Arthur was born two months afterwards. If her confinement passed off favorably, she did not owe it to her husband.

The same man killed himself in an attack of high fever, throwing himself from an attic into one of the canals of Hamburg. He would not have been able to compose a book, entitled "The World as Will and as Representation" (the English use instead of "representation" the word "idea," neither word expressing accurately the German "Vorstellung"). He left it for his son to write, and Arthur deserves credit for having proved that one may be a maniac and a powerful reasoner at the same time.

The pessimists have always affected to hate women, and Schopenhauer always proclaimed himself a hardened misogyne. How many epigrams has he shot off "on the creatures with short ideas and long hair"! He would not even admit that woman was fair. The intelligence of man,he said, must have been darkened by love in order to admire the other sex. And yet the great woman-hater had always loved women. But we must pardon even philosophers the inconsistencies which women cause them to commit; they have been created to make us love contradictions. To the pleasure of admiring them we add that of abusing them. Is there a happiness equal to that?

To speak ill of women while loving them is not a mortal sin, but we are astonished that a philosopher who pronounced himself a great contemner of men (*Menschenverächter*), who at all times professed the utmost scorn for the vulgar, for the *bourgeois*, for the philistines, the *souvereign canaille*, should be so anxious to know what they thought of him, and who attached a boundless estimate to the smoke called glory. No one was more concerned about his reputation, more greedy of laudations and flatteries. Whosoever criticised his works in an unfriendly spirit was either a nobody, or a scamp and a blockhead. Those who praised him were at once sure of his esteem. It will be seen from his correspondence that he was constantly asking his disciples and particularly his famulus Frauenstaedt to visit the reading-rooms, to run over carefully all the books, journals, reviews, and to copy the passages where there was any mention of Schopenhauer and his genius. He was not always satisfied with their quests. "My great vexation is," he said, "that I have not read half of what has been written about me." He was, however, not so very ungrateful; he confessed "that at the last he had tasted much enjoyment, that an old age, crowned with roses, even white roses, was a real blessing." The older he became the more his pessimism was softened. The tone of his letters changed; his hot fits of passion were succeeded by sarcastic cheerfulness. He had formerly affirmed with Simonides that the greatest good was "not to exist." He had discovered that there was some good in life, he wished for nothing more than the prolongation of his life, and two years before his death, he wrote to one of his friends: "The sacred Upanishad declares in two places that the normal duration of human life is one hundred years, and Mr. Flourens in his treaty on Longevity says nearly the same thing. This is a consolation." M. G. Volbert here adds a sentiment which I cannot but highly approve, "Of all the vanities of this world the most vain is a despair which dreams of a centenary existence,"

Schopenhauer was not only the most eloquent of pessimists but was also a moralist as profound as he was rigid. But he did not practise morality, and his adversaries had in this respect the advantage over him. He taught that compassion was the foundation of morality, but hastened to add, that real pity had nothing in common with the lukewarm philanthropy "which allows us to deplore the misfortunes of others while we feel easy in our own skin." The holy pity which he preaches is that which Buddha knew, that mysterious virtue which cannot be acquired unless the heart is penetrated with the idea of the Unity of all Beings. If we believe with Kant that time and space are only forms of our perceptions, the multiplicity and diversity of things are only a vain appearance and reveal themselves to us as identical with ourselves. The veil of the Maya is rent to pieces, the grand illusion vanishes. The egotist with blinded eyes makes a careful distinction between himself and all that is not himself, he sees in the universe a strange thing, which he uses for his own purposes, but in truth he believes only in his own existence. For the wise man there exists no "ego" nor "non-ego." He discovers in the innermost depths of his existence the principles of the world, and he recognises himself in all that is.

Schopenhauer, of all philosophers, is certainly the one who has most severely and most logically condemned egoism, but in practice he had never been anything else than a pronounced egotist. One day on a railway platform, when a train was approaching he saw a stranger about to cross the track, he cried out to him and lectured him severely on his imprudence; that was perhaps the most real mark of "holy pity" he has ever given to his fellow-men. He was a bachelor, a capitalist, and as much of an Anglomaniac as his father. He wanted to live like an Englishman residing on the Continent, who had left in England all the charges incumbent on him as a citizen, and given up his duties to his family. Having well regulated the hours of his employment he never sacrificed to any person the least of his habitudes. It would have taken a fire to prevent him from taking his siesta, of taking a walk, reading the *Times* at the regular hours, or of playing a little tune on the flute before he put on his coat, and tied his white "cravat" preparatory to going to dinner. He managed his fortune as well as his time, and in spite of some unlucky investments he had doubled his capital and his revenues. That was all very well, but what would Buddha have said to it?

There are amiable egotists, but such was not his case. To his adversaries he always showed himself implacable, particularly to the University professors of philosophy, and when in the reactionary period, which followed upon the dissolution of the Frankfort Parliament (1849), some of those professors were removed from their positions by the Government, he felt the joy of a cannibal who eats his enemy. Whether it was Fichte or Schelling, Hegel or Herbart, he treated all his rivals as charlatans, prattlers, old women, idiots, humbugs; but as he was a prudent man he took legal advice to find out to what limit a philosopher might be abused without risking a prosecution for libel, and also from prudential motives he waited for the death of Fichte and Hegel before he loudly proclaimed what he thought of them.

If he treated his enemies *en canaille*, he also often maltreated his friends. As he only knew friendship, when useful, those only of his disciples were admitted to his familiarity who busied themselves with spreading his glory. Even Frauenstaedt, who had devotedly done everything to get him readers and admirers, and whom he occasionally called his Theophrastus, fell under his displeasure when in some journal, as Schopenhauer believed, he had not correctly interpreted him, or had spoken respectfully of philosophical professors. If he was hard to his disciples, to whom he was under great obligations, it is easy to believe that he was still more so to low people to whom he owed nothing. Having had at Berlin a violent quarrel with a washerwoman, he used her roughly, throwing her down; for this he was condemned to pay her sixty thalers every year. When informed that she had died, he indorsed on the letter giving him the news: "*Obit anus, obit onus.*"

What was most singular and distressing in his history was his quarrel with his mother, whom for the succeeding twenty years he never visited. Johanna Schopenhauer was more charming than beautiful. She loved the world and united taste with gracefulness. In 1806, shortly after her settling herself at Weimar, Goethe had married his mistress, Christine Vulpius, to the great scandal of the court and town. He presented her to Mrs. Schopenhauer, who welcomed her with great cordiality. "Since he has given her his name," she remarked, "we can well afford to give her a cup of tea." In this way she won at once the favor of the great man, and within a short time, as she informed her son, her salon had become a literary circle without its equal in Germany.

She had rendered a great service to this ungrateful son, whom his father had condemned to a mercantile career. She revoked the sentence, encouraged him to pursue the course for which he felt himself born. But there was little harmony in their characters. Of a subtle and gay temper, she disapproved not only of his gloomy ideas, but also of his pride, of his Olympian and oracular conceitedness. "Although," she wrote him, "it is necessary to my happiness to know that you are happy; I do not care to be a witness of your good fortune; it would be difficult for me to live

with you." On his part, he accused her of loving show too much, and of spending too much money. But whatever his grievances might have been, he would never have broken with her had she not written biographies, travels, and novels, which sold well, while the prose of Arthur did not sell at all. This wound never healed. "My books will be read," he wrote her at one time, "when the last copy of yours will have been thrown away for rubbish." A philosopher jealous of the literary success of his mother is a rare spectacle. After her death, Frauenstaedt found in the posthumous works of Feuerbach a harsh and very ill-favored portrait of Johanna Schopenhauer. He lost no time in sending it to the master, who replied: "The portrait is a very good likeness. God forgive me, but it made me laugh." And yet one of his doctrines was, that intelligence compared with goodness of heart was the flickering light of a torch compared to the luminous clearness of the sun. "God forgive me, that makes me laugh." Another fling; what would Buddha have said to this?

In justice to him be it remarked that he always painted himself as he was; his correspondence proves it. He very much admired Rancé, and, seeing his portrait, he felt an emotion and observed, "that is the effect of gracefulness." He knew well that this quality was wanting in him. To those who reproached him with the difference of his doctrine and his conduct of life he would answer: "Look at what I say and not at what I do. It is enough for the sculptor to make a beautiful statue; is he bound to be beautiful himself?"

Unfortunately, he undertook to secure for himself a place amongst the founders of religion, and this pretension spoiled all. The founders of religion engage to practise what they teach; they are judged by their work and their miracles; and if Francis of Assisi, while preaching poverty, had been occupied in doubling his revenues, he would long since have been forgotten. Bacon was not a good man; but what is that to us? He did not pride himself on being a saviour of souls; he was not an apostle of quietism, which is a renunciation of all desires; which is the determined immolation of egotistical will. There was an absolute gulf between the character of Schopenhauer and the part he pretended to play, and in truth this grand contradiction is the only one which gives me a shock.

As Kuno Fischer has justly remarked: "Judging Schopenhauer, it must not be forgotten that in his youth the adoration of genius was the religion of the whole literary world. This worship had its code and its ritual. It was taken for granted that a man of genius was above all common rules that the Philistines were bound to observe. His existence was at the same time an honor and a fortunate thing for the human kind, which he instructed and delighted by his works. His only duty is to exist and to tell the universe what passes through his imagination. All that is asked of him is to have the sincerity of an artist. Schopenhauer boasted of having received from nature such a gift of imagination and voluntary emotional feelings, as to enable him to bring tears to his eyes by reciting his own writings. He pretended that if he had not preferred to become a great philosopher, he could have made himself easily a great stage-actor. His genius he compared to Mont Blanc, or to the sun. He worshipped only himself. But why did he wish to create another worship for the use of the humble? Why did he fancy at one time that Europe needed a new religion; that his philosophy would supply it, and that he would be the Buddha of the Occident? He tried to persuade his disciples that they were his apostles; he enjoined them to visit one another and wrote them: "At any place where two of you assemble in my name I will be in your midst." Indeed, in the conduct of his life this skilful flute-player was not afraid of discordance and false notes. But did he really take the religious character of his doctrines in good earnest? It is hard for me to believe it. The Germans, when they are at it, are terrible mystifiers. In a military college in Austria, two cadets, who passed their nights in secretly meditating upon the works of the grand Arthur, had reached the conviction that if they were to kill their desire (will) to live, the world would be annihilated. They were perfectly willing to extinguish their will, but had they the right to suppress the world? Vexed by their scruples they addressed the master, and a few weeks before his death he answered them in a style of paternal indulgence that this was one of the transcendental questions which he did not charge himself to solve. That is nearly what Mephistopheles answered to the good young men who submitted to him their cases of conscience.

Examining one of his photographs, it pleased him to say, that he was struck with the astonishing resemblance it bore to the features of Prince Talleyrand, and he wished that others also should be struck with the likeness. He liked to be taken for an impenetrable, mysterious, diabolical being, inspiring all who came near him with a sort of pious fear. Mr. Challomel Lacour who had gone to Frankfort to see him and dined with him at the hotel, wrote: "His slow-spoken and monotonous words which reached me above the din of glasses and the flashes of gaiety of my neighbors gave me a kind of uneasiness, like that of a cold blast across the open gate of the *néant*." In reading Aristotle, Plato, Descartes, Malebranche, Spinoza, Kant, or Hegel, whatever one may think of their systems, one does not doubt their good faith. They had

all that metaphysical candor, the supreme virtue of great thinkers. When reading "The World as Will and Idea," or his "Parerga," one is less sure, one fears that one is being duped. The edifice appears fair, but while admiring it, we can almost fancy that we hear as from the depth of a cave the secret sneer of the grand magician, who has built it and who laughs at his work and at himself.

Schopenhauer looked upon the bronze statuette of Buddha, cast at Thibet, purchased at Paris, as one of the most precious ornaments of his study. It was placed on a bracket and he held secret conversations with "the perfect being," with the sage of the sages, whose sweet smiles console and redeem the world. He might also have said to the bust: "Thy kindness was equal to thy holiness, thou hast discovered the principle of true morality, but above all thou hast made it thy duty to practise it thyself." Schopenhauer might have taken for his motto the memorable sentence of Goethe, which he wrote in the album of a student: "It is our good God who has given us the nuts, but it is not He who cracks them for us."

The essayist of the *Revue des deux Mondes* is not blind to the contradictions and incoherencies of Schopenhauer. He has frequently dwelt upon them, but he has not pointed out the one which seems to me the greatest of all. Schopenhauer, in his attitude to nearly all philosophical systems, was an iconoclast, and no one was more maligned and denounced by him than his predecessor, J. G. Fichte, though I venture to say that there is the greatest similarity, not to say identity, between his and Fichte's philosophy. What is Schopenhauer's "will" but the strong desire to exist, to live, which extreme striving for existence dwells unconsciously even in the inorganic world, is very strongly implanted in animated and most intensly in human beings. Everything outside the individual man is mere representation (idea). The world is mirrored in his head. Now Fichte's "ego" is the individual, equally bent on his existence. The outside world is a stranger to him, is the "non-ego." He observes only phenomena. Were it not for this most ardent desire to exist, impressed on mankind by the creative power, the world would soon come to an end. Were the desire to exist but feeble or entirely latent, many a man would put an end to his life with a bare bodkin, when afflicted with a violent toothache. According to both, when the individual dies, the world dies. It is true, from the very same premise, Fichte, who loved mankind and strove to live for it, drew different conclusions, as Jean Paul and Madam de Staël also did, but that does not deprive Fichte of the merit, if merit it be, of being the original source of Shopenhauer's system, nor did it justify the abuse which the latter so abundantly has heaped upon him.

CURRENT TOPICS.

Probably the most efficient policeman in preserving peace among nations is International Trade. The new treaty of commerce between Germany and Russia is already interpreted as not merely a commercial agreement, but also as a pledge of political friendship. The intention of the French Government to increase the tariff on wheat threatens to dissolve the Franco-Russian alliance against the Dreibund, if such an alliance was in reality ever formed. The Russian Minister of Finance will regard the new tariff on grain, if adopted by the French Government, as a declaration of commercial war against Russia, and in that case he will apply retaliatory and repressive measures; and while he is about it he will enforce those measures not only against France, but also against "several American imports." "Russia," says the Minister, "is able to get along without imports from France or America." This is doubtless true, and France and America are equally independent of Russia, and every other nation can say the same thing. There is probably not a nation in the world that could not "get along," after a fashion, without external commerce, but it gets along better with it, and this is the benefit that commerce gives to nations. If the Russians need some things that the French have to spare, and the French need some things that the Russians have to spare, it is better for both nations that they exchange with one another. A war of tariffs is better than a war of guns, but peace is better than either.

* * *

The House of Lords has been meddling in politics lately, and thereupon a cry for its reformation or its abolition comes up from the people outside. That the abolition of the House of Lords will be a plank in the coming "platform" of the Liberal party seems very likely now. Mr. Gladstone himself may act as a conservative break on the movement, because a good deal of Tory sentiment remains in him still, but the younger members of his cabinet, with hotter and more tumultuous blood in their veins, want to share in the enthusiasm created by the prospect of a revolution that will end the House of Lords. At the conference of the Liberal Federation held at Portsmouth on the 14th of February, Sir William Vernon Harcourt, Mr. Gladstone's first lieutenant in Parliament, said: "Is it this nation's will to be controlled by the representatives of the people, or by a chamber representing nothing but a selfish class? . . . . It is the business of the Liberals to convince the Lords that the people will no longer allow them to override the people's will." In answer to that the Lords can say, "Well, we had a good time of it while we lasted"; and when that gilded relic of antiquity, the House of Lords, is finally converted into a committee-room, or something of that sort, their lordships will probably laugh as heartily as anybody at the barbarian coronets and robes, and stars and garters, and collars and crosses, and all the rest of the tomfooleryment by which they have hypnotised the English people for seven or eight hundred years.

* * *

The abolition of the British House of Lords will be a caution to its counterpart and imitation, the American Senate. Although the Senate is more firmly established in our Constitution than is the House of Lords in the Constitution of Great Britain, it will at last come under the same criticism and meet the same fate. Political causes work out the same consequences in all countries just like other laws, and the American Senate is becoming unpopular, partly because of its own actions, but principally because the people are just beginning to find out that it *is* an aristocracy and an elective House of Lords. It is criticised and even menaced for the same reasons that threaten the existence of its prototype and model. It is rather suggestive that while Sir William Harcourt was denouncing the House of Lords at Portsmouth, the editor of the *News* was writing like this at Indianapolis: "The Senate is the greatest log-rolling body of law-makers in the world. And at

this present time the Senate is engaged in a conspiracy against the people of the United States. It is more important that one of those fossil millionaires should be pleased than that the most righteous law should be passed over his protest. There is no call for any wild talk, but we would remind the Senators that the people are above the Constitution, and that they cannot shield themselves behind that Constitution if the people are ever persuaded that the Senate is a nuisance that must be abated." This is very much like the talk of Sir William Harcourt, but the significance of it lies in the warning that "the people are above the Constitution," an ancient principle that seems to have been forgotten by the politicians of this land.

* * *

The adjective "un-American" has been so grievously overworked in rebuking some very American practices that we feel a genuine pleasure when we find it properly applied. Some of the most prominent citizens of Chicago have organised themselves into a "Civic Federation" for the purpose of improving the government of the city. At a meeting of the Federation to adopt a Constitution and By-Laws, it was proposed that, "Any member of the central council who shall become a candidate for or accept a political office shall forfeit his membership in the Civic Federation." The resolution was opposed by some of the members on the ground that it was putting a boycott on themselves, and that such a boycott was "unmanly and un-American." I fail to see anything "unmanly" in it, but it really does appear to be "un-American." A body of citizens voluntarily renouncing all political ambition and all aspirations for office, is a remarkably "un-American" sacrifice. "What are we here for," said Mr. Flanagan, "except the offices?" which reminds me of Judge Wilson of Marbletown, the day that Sumter was fired on. We had a meeting in the evening at which the Judge declared that the Union must be maintained at any cost, "because if this Government is to be broken up, fellow citizens, what's to become of the offices?" And something like that was the argument of Mr. Seward at the famous Delmonico dinner, when he predicted that the trouble would be all over in ninety days, because as soon as our Southern friends discovered that in dissolving the Union they were losing the offices they would all come back. It is gratifying to record that in spite of all opposition, the Civic Federation stood firmly by its resolution to keep the society free from the contamination of office-hunting politics.

* * *

The Packing Manufacturers and Canning Association, and the Western Canners Association held their annual convention last week in Chicago, and curiously enough, it was the only convention held here this winter that did not "want a law passed." In fact, as reported by the papers, "the question of the law pending before the Ohio Legislature which proposes to oblige manufacturers of canned goods to label their packages with the date of canning, was brought up and briefly discussed. The members of the Association are unanimously opposed to the measure, and yesterday's discussion resulted in the appointment of a committee to draft a set of resolutions denouncing the law." It is the business of those canners to pack meat, fish, fruit, and vegetables in cans, and sell their wares in the market at the most favorable time, but unfortunately their merchandise does not improve with age, like wine; in fact, after fermenting in the cans for a few years it is likely to become insipid, and perhaps, unwholesome, sometimes indeed, even poisonous, but this is usually attributed to the chemical action of the acids on the tin cans, and it is never the fault of the canners nor due to the antiquity of their goods. The people of Ohio, not being poison-proof, like some of us farther west, want their canned goods fresh instead of stale, and when they buy a can of peas or strawberries they want to know at what time in the century the peas and strawberries grew. Actuated by the same feeling, the Legislature of Ohio proposes to pass a law compelling the canners to stamp upon the cans the exact year when the canning was done. To this the Western canners, and the Eastern canners, and the Northern canners, and the Southern canners, and all the other canners are unanimously opposed, because they want the age of their goods to remain, like the age of a woman, a mystery. The proposed law being merely for the protection of the general public, and not in behalf of a special interest, it will probably never be passed.

* * *

The personality of the Devil has been judicially determined in the affirmative by a judge and jury of the Salvation Army at a trial in which that well-known criminal, Satan, was defendant. The trial was held at the Head Quarters of the Salvation Army in the old skating rink on West Madison Street; and so great was the public interest in the case that the hall was crowded, although a general admission fee of ten cents a head was charged, and twenty-five cents for a reserved seat, the winner taking all the gate money and the loser nothing. As the prosecutors had the appointment of the judge, and the selection of the jury, they had a great advantage, and the objection made by the defendant's counsel to the unfair character of the tribunal was promptly overruled. Notice of appeal was given but it will do no good, because any ecclesiastical court will decide that the rulings in the case, and the law, and the evidence were all strictly orthodox, according to the letter and spirit of the Bible and the precedents running back for nearly six thousand years. One witness testified that in California he had been persuaded by the Devil to commit a burglary, for which he, and not Satan, had suffered three months imprisonment. Grotesque as this appears to be, it was not only good theology but good law; and the witness probably remembered how it was charged in the indictment that, "being moved and instigated by the Devil," he committed the crime. This was the form for hundreds of years in England, and it prevails in some of the American States to this day. Other witnesses gave similar testimony, one saying that the Devil had given him lessons in theosophy, while another swore that Satan had taken him to hear Colonel Ingersoll. They described also the personal appearance of the Devil, his horns, tail, and the fire coming out of his mouth. The high-toned ministers of the Gospel sneer contemptuously at this burlesque performance, but the theology of it is in their own creeds; and the judge who presided at the trial, in justification of his ruling, can say with Uncle Toby, "It is in the Scriptures Trim, and I will show it thee to-morrow."

M. M. Trumbull.

NOTES.

The date of publication of this number of *The Open Court*, February 22, is not only Washington's, but also Schopenhauer's birthday. Our readers will therefore peruse with pleasure ex-Governor Koerner's article on the Frankfort philosopher.

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HUMAN SACRIFICE

BY DR. W. H. GARDNER.

THE conclusions of the most authoritative scientists of the present day teach us to believe that:—

When our earth, under fixed laws governing matter and force, had attained the requisite conditions, living organisms—vegetable and animal—originated; and that from some of these lower forms of animal life, the human race was evolved.

That in his primitive condition man was endowed with powers and faculties but little above his brute ancestry.

That as time passed on his physical and mental powers increased by use and by the survival of the stronger and better-endowed individuals, and by the elimination of those not so well fitted to war with their environment.

From these rude beginnings, hidden away back in the mist of geologic æons, archæology, monumental record and authentic history, all show us that he has progressed by slow and weary stages; sometimes making but one advanced step, or noting but one valuable fact in centuries; yet, as a race, always marking some increment of progress; until now the *homo sapiens* has reached so high a degree of knowledge and civilisation, and placed so wide a gulf between his starting-place and his present standpoint, that only the remnants of the bridge can be discovered over which he has passed.

In every stage of his progress there have been mental ecdyses in which some favored individuals or tribes, by the perception and appreciation of new ideas, involving some beneficent truth to the whole race, have sloughed off their worn-out skins of custom and prejudice and started less trammelled toward the goal to be attained.

In no branch of mental activity have these mental ecdyses been more marked than in religious belief. Still each succeeding higher cult has appropriated from its waning predecessor so many trappings and figments of the old belief, and so interwoven them with the new, that only the comparative mythologist can now select from the present creeds of civilisation the remnants of those effete cults of which they are so largely formed.

The tendency of thought of the present day shows unmistakable evidence that another religious ecdysis is about to take place; and though it is scarcely possible that finite understanding will ever be able to grasp the highest religious ideas in their entirety, yet it cannot be doubted by any intelligent mind that nearer approximations can now be made to *ultimate* religious truths, and higher and nobler conceptions framed of the Deity and the scheme of the universe than ever before; which must soon replace the puerile and degrading ideas formed in the infancy of the race, but which are still propagated and still hold sway over the great mass of mankind.

To the infantile mind of primitive man, everything that was inexplicable by his limited observation and rudimentary reasoning powers, became objects of wonder, amazement, or terror. The bright sun that gave him light and heat, the moon and stars that guided him through the sombre forest, the summer rain-cloud that cooled the parched earth and vivified languishing nature, the rosy dawn that heralded the approach of the rising sun, were all objects of admiration. Whilst the black night encompassed with unknown evils, the rushing hurricane pregnant with the scathing thunderbolt, the flaming mountain charged with fiery death, the ravening wild beast, and the deadly serpent, became objects of mortal terror.

From these ideas was evolved the religious sentiment. And every object that was beneficent and conduced to man's happiness, or, on the contrary, was maleficent and feared, became deified. They made gods of the sun, moon, and stars, the earth and the dawn; they placed Naiads in every stream and Dryads in every forest-grove; the volcano was the home of a devil, and the storm-cloud the chariot of an evil demon.

And as primeval man could frame no higher conception of automatic power than that of his own will, or the chiefs who ruled over him, or the animals with which he was familiar, all of his gods necessarily took those forms—Zeus prosecuted his amours under the guise of a bull, a swan, or a golden cloud; the genial sun was Baal, or Indra, or Apollo; Aurora was a rosy-tressed maiden that opened the gates of the sky for the chariot of the sun-god; Thor launched his fiery

hammer from the bosom of the storm-cloud; the lame Hephæstus forged the thunderbolts of Jupiter in the fierce fires of Ætna; the blustering Boreas carried off the beautiful Oreithyra from the banks of the Ilissus; the Devil masqueraded in the Garden of Eden as a talking serpent; the God of Israel made an anthropomorphic demonstration to Moses on the top of Sinai; and in the philosophical pantheon of Egypt almost every living thing was the personification of some deity.

And as his gods all partook of his own sensuous nature, with like appetites and aversions, their favor and assistance could be purchased and their anger averted by prayers, entreaties, praises, and gifts.

In that far-away past, as well as in the present, man was afflicted with many evils—poverty and cold, hunger and thirst, pain and disease, and *death*. From every other evil there was some "respite and nepenthe," but from death there was none—the mighty and the lowly, the strong and the weak, the young and the old, were alike conquered by the grim king of terrors.

The antithesis of the dark, silent charnel-house, or the foul, maggot-infested corpse, to buoyant life in the bright, genial sunshine, with sympathetic friends and gay feasts and dances, was terrible to contemplate. What wonder then that man's hope and vanity led him to conceive the idea of *a future life* as the only means of wresting victory from the grave and robbing the sting of death of its venom.

As families coalesced into tribes and nations, the experience of individuals was aggregated, and the ideas of every separate one became the property of all. Apparitions, ghosts, and visions of the dead, seen by a few in dreams and trances, were spoken of and discussed around their nightly fires and at their tribal gatherings, until soon the belief in an immaterial and imperishable *alter ego*, or spirit, became universal, and a continuance of life beyond the grave became an accepted fact.

And now all forms of religion, from the rudest savage fetichism to the most exalted Christianity, hold as a common tenet that there is beyond the present life, another state of existence, in which those who have done what they believed to be the will of their gods on earth, will be rewarded in that future life by honor and happiness, whilst those who have neglected to praise and worship their gods, or who have disobeyed their commands will be degraded and punished with inconceivable torture. And though this conception is so nebulous and misty, and so opposed to human reason and experience, that few believers, even those with the most vivid imaginations, can frame a consistent idea, how an individual continuance of life is possible after death, with an unbroken consciousness of personal identity, or in what the rewards and punishments of a future life could consist; yet this belief in its actuality is so potent, that whether Brahman, Buddhist, Parsee, Jew, Christian, Mohammedan, or Mormon, it regulates the lives of its believers and is their sustaining hope and dependence in the hour of death.

From these anthropomorphic and zoömorphic conceptions of their gods, arose the idea of family descent from them, and their worship as deified ancestors naturally followed. This belief was so widely spread among the nations of antiquity that every family or person of note took pride in tracing his lineage back to this ambiguous parentage between a god or a goddess and some favored mortal. The ruder nations have left us but scant records of the genealogies of even their sovereigns, but among the Greeks and Romans, the amours of the gods and goddesses of Olympus and the families begotten by their illicit loves, are as widely known as the names of Homer and Ovid. It would seem also from the second verse of the sixth chapter of Genesis that this idea was not unknown to the writer of the Pentateuch. The worship of deified ancestors (*Manes*) continued among the Romans until the older cult was replaced by Christianity.

Another belief common to all forms of religion is that the good-will and assistance of their gods can be obtained, and their malevolence averted by singing praises in their honor, praying to them and offering them gifts of such things as it is thought they take delight in. Hence every form of religion prescribes specific rules for daily conduct: catalogues the *feast* days and the *fast* days, enumerating the kinds of food that may be eaten or must be abstained from each day. And in the most of them elaborate rituals have been established, which specify the particular kinds and numbers of prayers, hymns, and invocations to be used on every occasion of life: the amount and kinds of penance to be undergone, and the kinds of sacrifice or gifts to be offered to the God as an atonement for sin, or for the purchase of his favor.

How closely allied are these conceptions in all religions, the following invocations, prayers, and hymns, quoted from widely different sources will abundantly show.

The first is a hymn (or prayer) addressed by the worshipper to Varuna, and is taken from the "Rig Veda."[1]

1. "Let me not yet, O Varuna, enter into the house of clay: have mercy, Almighty, have mercy!

2. If I go along trembling, like a cloud driven by the wind: have mercy, Almighty, have mercy!

3 Through want of strength, thou strong and bright God, have I gone to the wrong shore: have mercy, Almighty, have mercy!

[1] As I have not the *Rig Veda* at hand, I quote this hymn from Freeman Clarke's *Ten Great Religions*," Vol. I, p. 93.

4. Thirst came upon the worshipper, though he stood in the midst of the waters; have mercy, Almighty, have mercy!

5. Whenever we men, O Varuna, commit an offence before the heavenly host, whenever we break thy law through thoughtlessness: have mercy, Almighty, have mercy!"

The second quotation is taken from a hymn to Amen-Ra. The translation of this papyrus is by C. W. Goodwin, M. A., from "Les Papyrus Egyptiens du Musée de Boulaq, Fo., Paris, 1872." It is believed to belong to the nineteenth dynasty or about the fourteenth century, B.C. There are twenty verses in this beautiful hymn, but the limits of this essay allow me to quote only the two following:

HYMN TO AMEN-RA.[1]

"Gracious ruler crowned with the white crown,
Lord of beams, Maker of light,
To whom the gods give praises,
Who stretches forth his arms at his pleasure,
Consuming his enemies with flame,
Whose eye subdues the wicked,
Sending forth its dart to the roof of the firmament,
Sending its (arrows) against *Naka*[2] to consume him.
Hail to thee *Ra*, Lord of truth,
Whose shrine is hidden, Lord of the gods,
Chepra[3] in his boat,
At whose command the gods were made,
Atum[4] maker of men,
Supporting their works, giving them life,
Distinguishing the color of one from another,
Listening to the poor who is in distress;
Gentle of heart when one cries unto him."

The third quotation is taken from Taylor's translation of the "Hymns of Orpheus," London, 1787:

TO JUPITER.

(The fumigation from Storax.)

"O Jove much-honored, Jove supremely great!
To thee our holy rites we consecrate,
Our prayers and expiations, king divine,
For all things round thy head exalted shine.
The earth is thine, and mountains swelling high,
The sea profound, and all within the sky.
Saturnian king, descending from above;
Magnanimous, commanding, sceptred Jove,
All-parent, principle and end of all,
Whose pow'r almighty, shakes this earthly ball;
Ev'n Nature trembles at thy mighty rod,
Loud-sounding, arm'd with light'ning, thund'ring God.
Source of abundance, purifying king,
O various formed from whom all nations spring!
Propitious hear my prayer, give blameless health
With peace divine, and necessary wealth."

The fourth quotation I will make is from the authorised version of the Sacred Chronicle:

PSALM LIV.

1. "Save me, O God, by thy name, and judge me by thy strength.

2. Hear my prayer, O God; give ear to the words of my mouth.

3. For strangers are risen up against me, and oppressors seek after my soul, they have not set God before them. Selah.

4. Behold, God is mine helper; the Lord is with them that uphold my soul.

5. He shall reward evil unto mine enemies; cut them off in thy truth.

6. I will freely sacrifice unto thee; I will praise thy name, O Lord, for it is good.

7. For he hath delivered me out of all trouble, and mine eye hath seen his desire upon mine enemies."

I have given all of these hymns in the authorised English version, in order that they could be more readily compared. And upon careful comparison, it will be seen, that under whatever name, or whatever form the God was worshipped, the ideas in the mind of the worshipper were:

First: That their gods had the *ability* to assist their worshippers.

Second: That the will of their gods, like those of human beings, were *changeable*; and

Third: That their wills could be influenced by prayer, praise, and sacrifice.

Belief in the efficacy of sacrifice was common to every form of religion. In its fundamental conception, a sacrifice is an offering or gift to the gods, a trade or a bargain in which the worshipper gives to the gods something it is believed they desire, in payment for their countenance and assistance.

Homer taught the Greeks that the gods of Olympus could be influenced by gifts. In the sacred chronicle the necessity of gifts to obtain the favor of the God of Israel is abundantly shown. In the dealings between Jehovah and Noah and the Abrahamidæ, the covenant or bargain between the two parties was never completed without a sacrifice, and most usually of animal life in some form.[1] The first covenant between Jehovah and Abraham, by which the Abrahamidæ obtained their (*quasi*) title to the land of Canaan, and were recognised as the peculiar people of Jehovah, was not ratified except by circumcision; Abraham himself having to undergo this cruel rite when he was ninety-nine years of age, when there surely could have been no hygienic or moral consideration requiring it.[2]

Among the Eastern nations even to this day no

[1] *Records of the Past*, Vol. II, p. 125.

[2] *Naka*, form of the Apophis.

[3] *Chepra*, the Creator.

[4] *Atum*, the god of the setting sun.

[1] *Vide Genesis* iv, 3-4; *Exodus* xxii, 29-30; xxiii, 15, 29; xxix, 11-41; xxxv, 21-29 *et al.*

[2] Regarding the rite of circumcision and its significance as a sacrifice, there are conflicting opinions. Herodotus says the Egyptians, Colchians, and Ethiopians practised this rite *from the earliest times*, and that the Phœnicians and Syrians of Palestine learnt the custom from the Egyptians. There is also testimony that other tribes and races totally different in ethnic or linguistic affinities from the Semitic family, practised the same rite. Bancroft says circumcision was common among the civilised people of Central America, and that it is still kept up among the Teamos and Manoas and some of the tribes about the upper Amazon, and Eyre says the custom is still preserved by some of the Australian tribes. There is scarcely a probability that such a peculiar rite could have originated *ab initio* among the Abrahamidæ and been carried to such distant parts of the globe, either upon hygienic or political reasons. The cause that seems to me most consonant with what we know of the earliest history of human thought is that it is a remnant of human sacrifice—a vicarious sacrifice—or sacrifice by substitution, where a *part* is sacrificed or given to the gods to acknowledge their authority and purchase their favor, rather than the whole victim.—*Conf. Herodotus*, ii, 104; *Clarke's Commentaries: Genesis*, xvii, 11-12; Bancroft, *Native Races*, Vol. iii; Eyre, *Australian Dwellings and Customs*, and verb "Circumcision," in *Encyclopædia Britannica*, last edition, by the Rev. T. K. Cheyne, Balliol College, Oxford.

suppliant goes into the presence of his god or king empty-handed.

To primeval man one of the most pressing and ever-recurring evils was hunger. Food was limited and precarious. Lands flowing with milk and honey were very rare. Sometimes for years in succession there were no rains in parts of Asia Minor, and the torrid sun parched up every green thing. Occasionally swarms of locusts were brought by the winds into Syria and Palestine, which destroyed alike the food of man and beast. Sometimes the Tigris and Euphrates overflowed the lowlands of Mesopotamia, rotted the seed in the ground, and drowned their flocks and herds, and occasionally the Nile shut up his fertilising waters, and famine reigned even in the prolific land of Egypt.

As food was one of the constant wants of primitive man, and, in primitive thought, one of the constant wants of their gods, some article of food, something that supported the life of man, was usually selected as a gift or sacrifice to their gods. The first offerings—certainly during the hunter and herder state of the race—undoubtedly always consisted of animal life in some form. Among the Greeks and Romans they sacrificed different animals to different gods; bulls, oxen, and rams were sacrificed to Jupiter; horses to Mars; goats to Bacchus; hogs to Ceres; and a pregnant cow to Tellus. In the Iliad mention is made many times of the sacrifice of bulls, oxen, and heifers; and at the obsequies of Patroclus, Achilles sacrificed horses, oxen, sheep, dogs, and human beings to the *manes* of the deceased; but no mention is made of any produce of the soil, except honey, oil, and wine as accessories.[1]

In the sacred chronicle it is stated that the God of the Hebrews had respect unto Abel and his offering of the firstlings of his flock, but unto Cain and his offering of the fruit of the ground he had not respect.[2]

In the Vishnu Purana we read that horses and other animals were sacrificed to Siva.[3] Herodotus tells us that the Egyptians sacrificed a red bull without spot or blemish, a sheep, or a goose.[4] That the Persians always sacrificed an animal, usually a white horse, though Xerxes sacrificed a thousand oxen to the Trojan Minerva;[5] and the Lybian king, Crœsus, propitiated the Delphic god with three thousand of every kind of sacrificial beast.[6]

Among the Babylonians there was one peculiar sacrifice required of the females to Mylitta, the Babylonian Venus, analogous to circumcision;[7] but outside of this every sacrifice consisted of animal life, especially bulls, sheep, goats, and deer.

As the idea of sacrifice was that of a gift or offering to the gods, it necessarily followed that the higher and nobler the victim, the more acceptable was the offering to the god; and as human life, even in that savage age was the most precious gift that could be given, the sacrifice of human beings became an essential part of the religious worship of every tribe or nation at some period of its national existence. Among the more savage nomadic tribes it was at first most probably the principal part of their worship and was perhaps always accompanied by eating some portion of the sacrificial victim; whilst in those nations more advanced in civilisation, where human life was held in higher esteem, it still existed as a survival of the more ancient custom. Among the Greeks of the Homeric period it was undoubtedly a usual means of appeasing the anger of an offended deity. We have already cited the immolation of the Trojan captives at the obsequies of Patroclus; the same author also mentions the sacrifice of his son by Idomeneus, the King of Crete; and the legendary story of the attempted sacrifice of his daughter, Iphigenia, by her father, Agamemnon, to appease the anger of the wrathful Artemis, is familiar to all.

Ovid mentions in his "Metamorphosis," the sacrifice of Polyxena the daughter of King Priam to appease the wrathful shade of Achilles,[1] and the sacrifice of the two daughters of Orion, King of Thebes, to avert the anger of their god and stop the ravages of a plague that was devastating his city.[2] Herodotus tells us that after Oeobazus the Persian had fled from Sestus into Thrace, to escape from the Athenians, the Apsinthian Thracians seized him and offered him as a sacrifice after their wonted fashion, to Pleistorus, one of the gods of their country.[3]

Among the Romans this cruel rite existed from the earliest times until long after the Christian era. Livy says: That after the disastrous battle of Cumae (B.C. 216) by authority of the sacred books, a Greek man and woman, and a man and woman of Gaul, were sacrificed in the market-place at Rome to appease the anger of the Gods.[4]

Ovid says: "On the Ides of May the vestal virgin throws from the oak-built bridge images of old men plaited in rushes."[5] He also tells us that Vesta and Tellus were the same deities, and for that reason a priestess of Vesta, who had been false to her vows of chastity, was sacrificed by being buried alive in the

1 *Iliad*, Lib. XXIII, 205 et seq.

2 *Genesis*, IV, 3-4.

3 *Vishnu Purana*, p. 275.

4 *Herodotus*, II, 38, 39, 40, 46.

5 *Ibid.*, VII, 43.

6 *Ibid.*, I, 50.

7 *Ibid.*, I, 199.

1 *Metamorphosis*, Lib. XIII, Verses 439 et seq.

2 *Metamorphosis*, Lib. XII, Verses 487 et seq.

3 *Herodotus*, Lib. IX, Chap. 119.

4 *Livy*, Lib. XXIII, Chap. 51.

5 *Fasti*, Lib. V, Verses 621 et seq.

earth.[1] Pliny records that in the year of the city 657 (B.C. 96) when Cneius Cornelius Lentulus and P. Licinus Crassus were consuls, a decree forbidding *human sacrifice* was passed by the Senate—from which time these horrid rites ceased *in public and for some time* altogether.[2] According to Macrobius *human sacrifices* were offered at Rome down to the time of Brutus (44 B.C.) who abolished them upon the establishment of the republic. But long after this time the cruel custom was resorted to in exceptional cases to propitiate the gods; for authentic history tells us that in the time of Augustus, one hundred knights were sacrificed by his orders at Perusia; and as late as A.D. 270 a similar immolation occurred in the time of the Emperor Aurelian.

Far away to the north, beyond the snow-clad mountains, hundreds of leagues from the Eternal City, the shaggy, blue-eyed barbarians of Germania worshipped their cruel gods with the same sanguinary rites[3] and poured out their libations from the skulls of their slain victims; while further to the west, under the spreading forests of Gallia and Britannia the fierce Druid priests kept their stone altars reeking with the streaming blood of human beings.[4]

To the north and east beyond the Mare Hadriaticum, the rude Dacians, and along the shores of the Pontus Euxinus, the still ruder Scythians, not only worshipped their gods with human victims, but feasted upon their slain bodies; so integrating one rite with the other that they became known as Anthropophagi.[5]

Even Egypt, the ancient and venerable, the storehouse of learning and wisdom, practised human sacrifice. Plutarch, quoting from Manetho, says: "Men called 'Typhonian' were burnt alive in the town of Idithya, and their ashes scattered to the winds."[6] Diodorus tells us in explanation, that what was meant by "Typhonian" was men of a red color, which was believed to be the color of Typhon, this color being rare among the Egyptians though common among foreigners; and that these Typhonian men were sacrificed by the ancient kings at the tomb of Osiris.[7]

Other branches of the Semitic family practised the same rites. Heliodorus, in his "Æthiopica," says that the Æthiopians sacrificed to the sun white chariot-horses, to the moon a yoke of oxen, and to the Æthiopian Bacchus all manner of beasts. As I have not "Heliodorus" at hand, I will quote for the benefit of my readers, *verbatim et literatim* the account as given by "quaint old Purchas."

[1] *Fasti*, Lib. VI, Verse 455 et seq.
[2] *Pliny*, Lib. XXX, Chap. 3.
[3] Tacitus, *Manners of the Germans*, Chaps. 9–39; also Mallett, *Northern Antiquities*, Chap. VI.
[4] Tacitus, *Annals*, Lib. XIV, Chap. 31; *Strabo*, Chap. 4, Gaul.
[5] *Pliny*, Lib. VII, Chap. 2.
[6] Plutarch, *Isis et Osiris*, p. 380.
[7] *Diod. Sic.*, Lib. I, Chap. 6.

He says:

"Three Altars were erected, two ioyntly to the Sunne and Moone, a third to *Bacchus* by himfelfe, to him they offered all forts of Beasts; to *Sol*, white chariot-horfes, to the *Moone*, a yoke of oxen. And when all things were ready, the people with fhouts demanded the Sacrifice, which vfually was accuftomed for the health of their Nation: That was fome of the ftrangers taken in the warres to be offered. First triall was made by spits of gold heated with fire, brought out of the Temple whither the captives had ever knowne carnall copulation, for treading on the fame with their bare feete fuch as were pure virgins received no harme, others were fcorched. These were offered in facrifice to *Bacchus*; the others, to thofe purer deities. These things have I here inferted, not as done, but as like to fuch things, which among the Meroites were vfed to be done, and agreeing with the general devotions of thofe Ethiopians. *Philostratus* reporteth like matters of their *Gymnosophists*, and of the Grove where they kept their generall confultations; otherwise, each of them by themfelves apart, obferving their ftudies and holies."[1]

Porphyry says, human sacrifice was also common among the Arabs.

Of this practice among the Phœnicians and all of the lands colonised by them, evidence scarcely need be adduced. Porphyry tells us that: "The Phœnician history of Sanchoniathon is full of instances in which that people when suffering under great calamity from war or pestilence, or drought, chose by public vote one of those most dear to them and sacrificed him to Saturn."[2] It was a part of the established ritual of the Carthagenians and every year youthful victims were chosen by lot. Infants were burnt alive and their sacrifice had a special significance. Diodorus, in narrating the expedition of Agathocles against the Carthagenians, says:

"They gave just cause likewise to their god Saturn to be their enemy; for in former times they used to sacrifice to this god the sons of the most eminent persons, but of later times they secretly bought and bred up children for that purpose; and, upon strict search being made, there were found amongst them that were to be sacrificed some children that had been changed and put in the place of others. Weighing these things in their minds, and now seeing that the enemy lay before their walls, they were seized with such a pang of superstition, as if they had utterly forsaken the religion of their fathers. That they might therefore without delay reform what was amiss, they offered as a public sacrifice two hundred of the sons of the nobility, and no fewer than three hundred more (who were liable to censure) voluntarily offered themselves up; for among the Carthagenians there was a brazen statue of Saturn, putting forth the palms of his hands, bending in such a manner towards the earth, as that the boy who was laid upon them in order to be sacrificed, should slip off and so fall down headlong into a deep, fiery furnace."[3]

Suidas states that human sacrifices were offered to Saturn by the Phœnicians, Rhodians, Curetes, Carthagenians, and the Sardi, their colony. "They (the Sardi)," he says, "offered the fairest of their captives to Saturn, and such as were about three-score and ten years old, who, to show their courage, laughed; whence

[1] Purchas, *His Pilgrimage*, The seventh Book, Chap. II.
[2] Kenricks, *Phœnicia*, p. 315 et seq.
[3] *Diodorus Sic.*, Lib. XX, Chap. 1.

grew the proverb, *Sardonius risus*." In the fable of the Cerastæ, Ovid says that Venus changed that people into bulls, because they had polluted the island of Cyprus, which was sacred to her, with human sacrifices.[1]

The Persians also, Photius says, practised human sacrifice and buried men, women, and children in the earth alive to appease the wrath of Mithra. Herodotus also gives his testimony to the same brutal custom ; he says:

"After propitiating the stream by these and many other magical ceremonies, the Persians crossed the Strymon by bridges made before their arrival at a place called 'The Nine Ways,' which was in the territory of the Edonians. And when they learnt that the name of the place was 'The Nine Ways,' they took nine of the youths of the land and as many of their maidens and buried them alive on the spot. Burying alive is a Persian custom. I have heard that Amestris, the wife of Xerxes, in her old age buried alive seven pairs of Persian youths, sons of illustrious men, as a thank-offering to the god who is supposed to dwell underneath the earth."[2]

[TO BE CONCLUDED.]

[1] *Metamorphosis*, Lib. X, Fable vi.

[2] *Herodotus*, Lib. VII, 114.

PRESIDENT HARPER'S BIBLE-CRITICISM.

PRES. W. R. HARPER has written for *The Biblical World*, of which he is the editor, an article on "The Origin of Man in His First State of Innocence." We have good reasons to assume that we have before us here in condensed form some of the President's lectures which were recently the subject of acrimonious discussion. The article is a concise and very lucid review of the present state of theological investigation, showing in the writer not only independent critical judgment and a full knowledge of the critical work of others, but also a reverence for the Scriptures, as was to be expected of a man in his position.

Professor Harper has been denounced for heresy and infidelity, but if his critics were fully acquainted with the Bible, and the critical work done by some of the most learned and faithful of Christians in the investigation of the Bible, they would have held their peace. Those people, who led by Dr. Hensen, zealously attacked Professor Harper's position, only exposed their own ignorance and narrowness.

When Professor Harper says of the Genesis, "These are not scientific records, for science [viz., science in the strict sense of the term] is modern," he states a fact that cannot be denied; and there is no doubt that on this point he is in accord with the most orthodox theological scholars of all denominations, and that in critically investigating the Bible with the light of science he only obeys Christ's injunction "Search the Scriptures" (St. John, 5, 39). Professor Harper says, concerning the old Mosaic accounts: "It is a sacrilege "to call them history. To apply to them the tests of "history—always cold, and stern, and severe—is pro-"fanation. They are *stories*, grand, inspiring, uplift-"ing stories. Either of them has influenced human "life more than all the historical records ever penned."

This, indeed, is the grandeur of religion, that it anticipated the most salient moral truths long before they could be known to scientific investigators. But this service that religion has done to mankind does not imply that science has become redundant. The Bible must be used as a help, not as a hindrance, in the evolution of the human mind.[1]

Avowed infidel publications, such as *The Truth Seeker* of New York, frequently ridicule religion for holding positions which its representative thinkers never have held; and we believe that it is unfair to identify such bigoted exceptions as are frequently found in our churches, with the traditions of true Christianity—of that Christianity which has been a living factor in our civilisation. On the one hand, our liberals should learn that the leading authorities in almost all our churches are much more free-thinking and radical than is generally known; and on the other hand, we must know that those of our well-meaning but narrow-minded brethren who, ignorant of the divinity of science, scorn scientific investigation because it destroys some of their dearest prejudices, do not represent the real life of Christianity; and it would be a great blessing for our religious development if they could be made to understand that their attitude is extremely presumptive and irreligious. Who made them the mouthpiece of God that they arrogate to themselves the authority of representing him? God is in light, and not in darkness; he moves in the progress of mankind, not in retrogressive movements; he appears in the revelations of science, not in the blindness of those who deliberately reject reason.

Bigots are no better than infidels. Infidels ridicule the caricatures of religion but bigots furnish the material which justifies, to a great extent, the irreverent attitude of infidels. EDITOR.

[1] We here remind the reader of Goethe's words: "The good Lord has given us the nuts, but he does not crack them for us."

CURRENT TOPICS.

LAST Sunday a Chicago clergyman remarked with fine originality, that "this is a wonderful age in which we live"; and he was right, for a new miracle is reported in the papers every day; and every day it becomes easier and easier for us to believe the story of Jonah and the whale. A pensioner, in a thrill of patriotic exaltation, has voluntarily surrendered his pension to the Government and will draw it no more. I am not sure that this is the only act of the kind that was ever done but I think it is, and the man who did it has set a bright example that will doubtless be followed by a hundred thousand more. Holding the great office of Secretary of State, he sets the fashion with greater authority than any unimportant person could, and men will imitate him who would not care a brass button for the example of you or me.

* * *

Although it requires greater courage to give up a pension than to charge a battery, General Gresham's battle record has been

called in question, but not with great success. A former pension agent in Indiana declares that General Gresham was never in a battle. although a host of comrades testify the other way, and this critic says that the General was wounded in the leg by a sharpshooter, or a bushwhacker in a contemptible skirmish, and not by a genuine soldier in a fierce, tumultuous battle. Mathematically it makes no difference whether a man was wounded in a big battle or a little one, so that he was wounded, but sentimentally the difference is very great, as every soldier knows. It is more glorious to have been wounded in a great historic battle than in a skirmish unrenowned. Nor have all the different parts of the same battle an equal reputation, for some particular spots on the same field are more celebrated in history than others. For instance, I have never yet met with a soldier of either side who was wounded at the battle of Shiloh who did not assure me that he was wounded in the "Hornet's Nest." Not long ago a tramp accosted me on the street and said: "Comrade, gi' me a dime; I ain't able to work, because, you see that scar on my hand, I got that from a bullet at Shiloh when I was fighting in the "Hornet's Nest." "Well, comrade," I said, "It's much to your credit, and here's the ten cents, for at the time that battle was fought you could not have been much more than three months old." Yes, it is much better to be killed in a big battle than in a small one.

* * *

Last Sunday morning a lady of Chicago said to her husband, "Edwin, have you a revolver on?" He answered, "Yes." "Well,' she replied, "then let us be off to church." Persons at a distance, unacquainted with our "idioms," may regard this conversation as caricature, but as we have more pistol-practice here on Sundays than on other days, the precaution was well advised. In fact, a man can hardly be considered properly dressed in Sunday clothes unless he carries a revolver on his hip. Of course, many of our citizens fall victims to the revolver system, and as they are in most cases "fit to kill," we bear their loss with religious resignation; but sometimes the bullets fly wild and hit some unoffending traveller, and of this we righteously complain. Last Sunday, as we are informed by Monday's paper, "crowds gathered quickly at Clark and Harrison Streets about 2 o'clock. Bullets flew in all directions, and passers-by narrowly escaped being struck. Thomas Gilmore and William Hooley shot at each other half a dozen times, but neither of the duellists was wounded." This was the melancholy part of it, because we could have borne the loss of both of them with patient equanimity. On the same day, in another part of the town, "Jacob Leaper, a gripman on the North Clark Street cable-line, was clanging his gong vigorously at 12:40 o'clock near Ohio Street, when he felt something pass through his cap, leaving a burning pain in his scalp. An examination showed that the street-car man had a narrow escape from a stray bullet, which came from an unknown place. A doctor dressed the wound when he reached the car-barns." A free people must necessarily be a controversial people; they have so many things to talk about, and we find that nothing so effectually as a revolver gives emphasis to argument.

* * *

To the south of us they take better aim than we do, as appears by the details of a misunderstanding that occurred last Sunday in a church at Nashville. As the papers tell the story better than I can, I will let them tell it in their own way, thus: "There was serious trouble between the members of the Spruce Street Baptist Church to-day, resulting in Andrew Bishop being shot in the neck and seriously wounded. Several persons were struck with chairs and knocked down. The police soon made their appearance, and fourteen persons, including the pastor and Elder Purdy, were arrested." It seems that there are two factions in the church, and somebody objecting to some of the proceedings, "hot words were succeeded by blows. Andrew Bishop was shot by one of the worshippers whose name has not yet been ascertained." Efforts are being made to identify him, and as soon as he is discovered, he will be severely reprimanded for shooting while meeting was going on, instead of waiting until after the benediction.

* * *

Even in the South, among the most expert marksmen, bullets will sometimes go astray and hit an innocent man, a mere spectator of the fray; occasionally, indeed, a woman, which is a more serious matter, for judging by the numbers of the "unemployed," we have plenty of men to spare. Here is an account of an "unpleasant affair" that came off last Monday at Houston. Some neighbors who were not on friendly terms happened to meet at the railway station just as the train was coming in, when "Jim Mitchell espied York and opened fire, which was as promptly returned, York falling after firing a second shot. Mitchell kept up his fusillade until he had fired six shots. In addition to York being killed, Milton Sparks was shot to death, his brother was mortally wounded, and Dan Gleason, an omnibus-driver, was killed. Mrs. Sparks was badly wounded, as was also a child she carried. A Mrs. McDowell, an aged lady, received one of the bullets, and her chances of recovery are slim." All this barbarism is largely due to the false belief that a revolver makes a man brave, and that it is a chivalrous thing to have one always ready to protect ourselves and to maintain our dignity. There are laws against carrying concealed weapons, but they rather stimulate the practice than correct it, and it never will be abated until we establish firmly in public estimation the true doctrine that the unarmed man is a brave man, and that the man who carries a pistol about with him among people engaged in peaceful occupations or in social enjoyments is a coward. It is much to the credit of the people of Houston that the shooting of the women and the baby is "regretted."

* * *

Four or five weeks ago, I referred in *The Open Court* to the convention then being held in Chicago by the Dairymen's National Protective Union. It will be remembered that those National Dairymen "wanted a law passed" for the suppression of butterine and "the encouragement of high-grade dairy products." I also mentioned at the time that the people of Chicago were so deeply interested in the latter purpose that they were seriously thinking of combining themselves into a Protective Union against the dairymen. They have been anticipated by the people of Omaha, who have actually had a law passed for the encouragement of "high-grade dairy products"; and, what is most astonishing, the dairymen do not approve it, and even threaten to rebel against it. They held a meeting on the evening of the 17th and bravely resolved: "That believing the city ordinance known as the milk ordinance is illegal and void, members of this association will pay no attention to any official acting by its authority, and we warn them one and all to keep away from our premises and belongings." We are further informed that if the city officials attempt to carry out the provisions of the ordinance, "they are sure to meet with resistance and a lively time." No doubt the people of Omaha, especially those who have children, are interested in "high-grade" milk, and perhaps in their anxiety to get it they have had a law passed that in the opinion of the dairymen is harsh and unconstitutional. Legislative interference in private business is nearly always mischievous, except in the case of dairymen. When we consider how many children of the poor in great cities are poisoned by adulterated milk, we are willing to have almost any sort of a law passed that will compel dairymen to furnish a "high-grade" article.

* * *

Some time ago, I saw a play in which the hero, "Bob Brierly," an ex-convict, found it almost impossible to reform, because when-

ever he got some honest employment somebody recognised him and pointed him out, thereby causing him to lose his place, and driving him to seek work in some other part of the country, where his former history was not known. No matter how hard he tried, society would not allow him to be an honest man. It is the same way here in Chicago now. Lately some "Civic" societies composed of the "better classes" have been organised for the purpose of reforming the city government, purifying politics, and electing good men to office irrespective of party. Probably no more virtuous resolutions were ever penned than have been adopted by the "Civic" societies, and yet scarcely have they got themselves into effective working form when one of the morning papers talks at them like this: "Amateur political reformers are generally used as cat's-paws to get office for chronic office seekers. The new civic federation has in its membership political hacks who have never been known to earn a dollar except in office." And another talks like this: "The 'League of American Civics,' the 'Municipal Reform League,' the 'Civic Federation,' and all the other organisations of rich men for the reform of Chicago politics ought to adopt as a primary By-Law the rule that no man who has been guilty of evading his just and proper taxes should be eligible to membership. It is only necessary to scan the list of members of these high and lofty associations to discover that the rule is not now in force." Certainly not; why should it be in force, when the object of the "Civic Federations" is the civic reformation of these men?

* * *

When a chronic inebriate goes down to Dwight for a course of discipline under Doctor Keeley, he goes there, not for the purpose of indulging in his drinking habits but in order to be cured. So it is with those chronic office-seekers and those chronic tax-evaders who have had the habit of swearing to false assessments; they all join the "Civic Federations" to be cured; they desire to become good citizens and honest men. Must they be foiled in their good intentions by the exposure of their former delinquencies as was the case with Bob Brierly in the play? If there are in the Federations rich men who have heretofore cheated the city in the matter of their taxes they virtually promise by the very act of joining the Federations that they will do so no more. It is something of a hardship to the rich man that even after death he must appear in the Probate Court, and he feels meaner than old Scrooge when his executor files an inventory showing that our departed brother had fifty times more property when he died than he reported to the assessor while he lived. Some day, if the Civic Federation takes good hold of consciences we shall read this tribute on the monumental stones, "Here lies a rich man whose tax assessment corresponded with the inventory of his property filed in the Probate Court." It is easier to pay taxes than to work them out on the roads as I have sometimes done, but taxes like all other obligations must be paid, or worked out, and if we evade them here on earth, we must "work them out" elsewhere.

* * *

That volcanic orator, Governor O'Ferrall, of old Virginia, has made another warlike appeal to the Legislature of that State. He wants two steam cruisers armed with long range guns for use against the Maryland pirates who invade Virginia waters and dredge for oysters there. With the old war-passion flinging electric sparks from his eyes he wanted to know whether or not the sons of old Virginia would tamely submit to the Maryland buccaneers who, not satisfied with Maryland oysters, were dredging for oysters in Virginia's portion of Chesapeake Bay. "Never! Never!" was the answering cry of the excited members; and soon we may expect a proclamation from Governor O'Ferrall declaring war against Maryland. This whole quarrel appears rather trivial to the commonplace mind, but heroic souls remember that great historic wars have sprung out of disputes concerning more contemptible things than oysters. Instead of declaring war the Virginia Legislature may save both money and men by simply sending Governor O'Ferrall to make a speech to the oyster pirates of Maryland. That will scatter them quicker than long-range guns.

M. M. Trumbull.

BIRTH SONG.

BY G. L. HENDERSON.

Hail, thou sweet little maiden!
My heart has been yearning for thee:
Thy breath with perfume laden
Is sweeter than incense to me.

Come! Thy cradle is ready!
The cosiest corner 's for thee:
Blithest wee little lady,
Our darling thou ever shall be.

Come! Than gold thou art purer:
I kneel at thy heart as a shrine;
No treasure can be surer,
To love, and be loved, is divine!

Ocean gives vapor and cloud,
Which rivers restore to the main;
The Race, by cradle and shroud,
Gives life and resumes it again.

Love out of love evokes thee:
Serve Love, 'tis the life of thy soul!
When served, Love shall revoke thee
As part of the soul of the whole.

Come, child, up through the ages!
This earth is our home in the sky:
Within *us* live the sages:
In the US WE SHALL never die!

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PROF. PFLEIDERER ON THE GENESIS OF CHRISTIANITY.

BY JOHN SANDISON.

Professor Pfleiderer of Berlin whose philosophical works are well known and who has with great persistence endeavored to work out a Hegelian conception of the history of religion by applying it to all the early religions as well as to Christianity, but who it is but right to add, is opposed by a large and increasing number of theologians following in the footsteps of Ritschl—is, at present, engaged in delivering the Gifford Lectures in the University of Edinburgh. I was present at his address on Saturday the 2d of February, and thinking that it might be of interest to the readers of *The Open Court*, I noted the substance of his lecture which was on the "History of the Genesis and Development of Christianity."

The learned Professor proceeded to point out that the scientific investigation of this history, was of recent date, being not more than one hundred years old. What made it impossible sooner was a double hindrance—(1) a false idea of the nature of the revelations upon which Christianity rested; (2) a false idea of the character of the sources out of which we were able to obtain a knowledge of this genesis. To investigate a history meant to trace up the connexion of its causes and to make it intelligible to the understanding. This presupposed that in what had once happened there existed such a connexion of causes and effects as was analogous to our general experience and what happened among men, and was therefore intelligible to our understanding. But according to the old tradition the origin of Christianity was said to have lain in events outside of the connexion of human causes and events, incomparable with all other experience and inconceivable by any understanding—in other words, an absolute miracle, which again could only be known in a miraculous way, and could only be believed on authority. Christianity had arisen according to this account in a divine being. The Second Person of the Trinity had once on a time assumed a human nature by miraculous birth from a virgin, had made known His divine nature by many miracles, by His death had delivered men from the divine wrath, and had afterwards returned to His heavenly kingdom. Certainly beautiful conceptions, continued the Professor, which from of old and even now came home to the fantasy and hearts of men; and in them we should never cease to honor the venerable vestments of sublime truths.

But was all this intelligibly conceivable history? No. These representations did not contain such history, nor could, nor ought they at all to contain it. The appearance of a Heavenly Being for an episodic stay upon earth broke the connexion of events in space and time upon which all our experience rested, and therefore it undid the conception of history. And nothing was altered in this position by showing how the appearance of the Heavenly Being had been prepared on earth by the course of history; how the Roman government of the world favored the spread of the Gospel; how the state of things in the heathen and Jewish world had been so desperate that men were the more willing to receive the tidings of the Divine Redeemer and such like. Considerations such as these, which were always at home in the apologetics of the church, certainly contained much truth; but they nevertheless remained attached to the surface of things and did not penetrate to the inner connexion of Christianity with the preceding history. It was overlooked that here too, as everywhere in the historical development of humanity, when the old was dying out, the new was prepared, not only negatively but positively, that men no longer found any satisfaction in the old forms of consciousness and life only, because the presentiment of the higher truth already lived in the depths of the soul and evoked their longing for elevation to a higher consciousness of themselves and of God. What broke the old forms to pieces was first the new spirit itself, which, therefore, already pre-existed in germ, under the shell of the old, and which struggled for liberation from the hindering bonds and strove towards formation in personal and social existence. It was first on this account then, that the appearing of this new spirit in a powerful prophetic personality could be recognised and greeted as the fulfilment of the hoping of all, because they found in Him their own growing spirit, their better selves. This was the true, the positive and inner connexion of the new with the old in all human history; and so it was too in particular in the

case of the rise of Christianity. Only thus could its genesis be really comprehended as history, while under the presupposition of an absolute miracle it remained to us forever inconceivable. If Christianity had appeared as an absolute miracle in the person of a God upon earth, the knowledge of this appearance and of its significance could also have been communicated only through a miracle to men. Hence supra-naturalism logically assumed that the Bible, to which we owed this knowledge, was a work of the absolutely miraculous inspiration of the Holy Spirit, who had unveiled to the prophets the mystery of the future appearing, and to the apostles that of the accomplished appearance of the God-man, and who had noted down the record of this revelation for the coming generations even to its wording—nay, had specially dictated it to an amanuensis. As the Bible, according to this view, did not contain human history, but superhuman miracles, neither had it arisen in a historical way; it was not a collection of divers human testimonies about human experiences out of different times, but it was from beginning to end the homogeneous work of one divine author who had only employed different men as secretaries, to whom He dictated the oracles of His supra-rational revelation.

In approaching the Bible with this assumption men made quite impossible to themselves the understanding of its actual contents, which were as different as the times and the men from which they sprang. Naturally with this view, all interest in a higher, thorough study of the sacred Scriptures was lost; men supposed they knew beforehand what was everywhere to be found in them—namely, just the mysteries of revelation, the sum of which was already possessed in the dogmatic system. Hence the Bible was only further used as a mine of proofs for the established dogmatic system. Thus it happened that just in the age of the dominating orthodoxy whose doctrine of inspiration deified the letter of the Bible, the true study of the Bible reached its lowest ebb, and an understanding of the actual development of religion in the Old and New Testaments was completely wanting. It was a merit of the rationalistic movement that it broke with the prejudice of the unhistorical dogma of inspiration and recognised the Bible as a book written by men for men. The Professor further pointed out, however, that the rationalism of the period of enlightenment also still lacked the unbiassed historical sense and was still entangled in dogmatic assumptions, and he traced back the beginning of a historical understanding of the Bible to Herder, the friend of all natural, original, and powerful feeling in poetry and religion. But in the words of Hayne, "Herder wanted still the critical mediate conception between poetry and faith—the conception of the myth." This defect was rectified by Strauss and Baur, the great critics of Tübingen. The merit of Strauss was that he answered clearly the question, If the primeval history of all other peoples and religions is full of myths and legends, why should not the biblical history be so, too? and that he then also applied the point of view logically to the whole Gospel history. The strength of his "Life of Jesus" lay, it was true, more in negations than in positive results, in the removing of the hindrances to positive results, more than in the building up of such knowledge. But in order to come to this knowledge there was needed a more fundamental criticism of the sources of the Gospel history. This foundation of a positive history of primitive Christianity was still wanting in Strauss, and here was the point where the epoch-making achievement of his teacher Baur came in. The Professor then showed that Baur opposed to the old method of subjective criticism an objective criticism, which judged of the biblical writings not by the ecclesiastical traditions which arose accidentally, but by the contents of the several writings themselves.

If the contents of a writing were such that it was not possible without contradictions to connect it with the relations of the time and the person to whom it was hitherto ascribed, then the origin of this writing must be transferred to another time, whose relationships it most naturally fitted into, and out of whose ecclesiastical as well as theological interests it was most easily to be explained. Emphasising the most important results of Baur's method as applied to the New Testament, the lecturer showed first that by thorough investigation of the Pauline Epistles and of the Acts of the Apostles, the critic came to the conclusion that it was through Paul that Christianity had been first recognised as the universal world religion in distinction from the Jewish national religion, and that Paul had been able to carry through the original apprehension of Christianity only by hard conflict with the Jewish prepossessions of the primitive Church, and therefore that the real history of the apostolic time did not show the peaceful picture of ecclesiastical tradition, but a development from the beginning through strong opposition, out of which the one universal Catholic Church did not proceed till towards the end of the second century. Another equally important result of Baur's criticism, the Professor went on to say, related to the Fourth Gospel, which he came to the conclusion contained a Christian Gnosis, clothed in the form of a life of Jesus. But that such a representation, determined by ideal motives of a didactic kind, could lay no claim to historical value, had been established by a running critical comparison of this Gospel with the Synoptic Gospels.

This criticism of Baur had been much attacked, yet it had not been refuted to the present day; whereas

all further investigations had always only contributed anew to confirm it in the main.

The Professor then referred to the Synoptic Gospels, in his criticism of which Baur had been less successful. His hypothesis respecting their relations to each other might be regarded as antiquated. We were still far from having reached a certain result on this question, and would assuredly never come to such a result unless some entirely new material source of information were yet discovered. The Professor then pointed out that no one of the Synoptic Gospels dated from the time of the first apostolic generation, but somewhat later than the year 70 A. D. Up to that time oral tradition was still the only source of the communication of the Evangelic history. He further pointed out that in such oral tradition the connexion in which the individual sayings of Jesus had been originally spoken could not possibly be exactly retained, and that the free form of the oral tradition of the sayings of Jesus could not exclude transformations and additions. Even in the case of some of the parables there were cogent reasons for distinguishing between an original simple kernel which pointed back to Jesus, and an artificial interpretation, explanation, and transformation which might well be a later addition. Again we saw already in every-day life how the recollection of a life which was dear to us was wont to be transfigured, idealised by the unconsciously working fantasy. Still more was this the case when the life in question was one which was of great significance to many. The ideal motives which worked determiningly upon the formation of the Evangelic tradition might, if he saw rightly, be referred to three sources, (1) the existing Messiah idea of Judaism, (2) the figurative modes of speech used in the Old Testament and by Jesus, (3) the religious experiences of the community of the disciples.

Mark was the oldest of the Gospels which, in comparison with the others, bore the stamp of greater originality and definiteness; especially striking was its dogmatic *naïveté*, the want of Christological considerations and interests. Mark still knew nothing of the miraculous birth of Jesus, or of the miraculous power of Jesus, which according to his representation was as yet no absolutely supernatural power, but was conditioned partly by physical means and partly by the faith of the sufferers.

The Professor then pointed out that the writer of Luke was a Hellenist Paulinist of the post-apostolic time; that it is the richest of the Gospels, eminently poetical and artistic, and remarkable for setting forth the love and mercy of Jesus, and that the author adopted a conservative attitude towards the universal mission of Christianity.

Matthew, on the other hand, the Professor stated, was the youngest of the Synoptic Gospels and was a faithful mirror of the dogmatic consciousness of the Catholic Church of the second century.

SENATORIAL REFORM.

BY MONCURE D. CONWAY.

It is a curious sign of our time that just as an able political writer was pointing out in *The Open Court* the anomaly of our Senate, an eminent English writer should propose to import it, partly, as a substitute for the House of Lords. Dr. Alfred Russell Wallace, to whose article in the *Contemporary Review* (January 1894) I refer, calls himself an "extreme radical," and, if he be such, supplies another example of the mental confusion which has often led extreme radicalism to change king log for king stork. His scheme bears all the marks of having been rapped out on his table by the "spirits" with whom he is so familiar, but the spirits might have made a different revelation had they consulted the shades of Franklin, Randolph, Mason, Madison, and other constitutional fathers as to their impressions of the Senate after its hundred years. Though Dr. Wallace is credited with the discovery of the principle of natural selection, simultaneously with Darwin, his reputation is not enhanced by this venture in political selection. The constitution of the United States Senate historically represents a concentration of "survivals" in America of the basest characteristics of the reactionary reign of George III, which the American Revolution had resisted. The thirteen colonies claimed, as a result of the Revolution, a several sovereignty more despotic over their subjects than had been claimed by the royalism they had unitedly overthrown. These thirteen sovereigns were so jealous of their autocracy that it was only under the continued menace of England, which still held six military posts in the North West, its ships commanding our coasts, that they could be induced to form any union at all. It was really a military union, the president being a half-civil, half-military chieftain (which accounts for the unrepublican majesty of that officer). The constitution of 1787 was really a treaty between thirteen sovereigns, the smaller empires refusing to unite unless their inherited supremacies were secured the power to overrule the voice of the nation. This was the real foundation of the Senate. But in the discussions of the Convention (1787) that doctrine of sovereignty, discredited even in England, was veiled, though the veil was as discreditable as the motive concealed. The necessity being first of all to get the second Legislature established in the Constitution, it was done with an innocent air, and without discussion, on the mere statement that England had two Houses, and that two Houses had always proved favorable to Liberty. Both were untrue: England had only one

House, so far as the powers given to the Senate were concerned; and even her two unequal Houses were at that time unfavorable to Liberty. But worse remained. When the subject of disproportionate representation in the Senate came before the Convention, it was supported as a principle only on the ground that in the British Parliament small places with little population were represented equally with the largest constituencies. Thus, the infamous "rotten borough" system of England, long discarded, now a proverb of governmental absurdity, was avowedly imitated in our American Constitution. And to crown the dishonorable proceeding, the Convention, laying aside the fundamental principle of the Revolution, gave our peerage of States as much hereditary perpetuity as it could, by excepting from the normal powers of constitutional amendment the right of each State to equal representation in the Senate. Should the population of Rhode Island be reduced to the one family that used to elect the two Commoners for Old Sarum, that State would still equal New York in Congress.

It will therefore be seen, that in our Senate are historically embodied the most antiquated principle of State sovereignty (to which we owe the civil war, and State repudiations), the "rotten borough" principle, the peerage principle, and the base attempt to fetter posterity to these unrepublican and irrational principles; by all of which the United States is held far behind Western Europe in constitutional civilisation. It should be said that even Dr. Wallace does not propose to invade our monopoly of the "rotten borough" feature of the Senate.

The perpetuity which, as one of your correspondents has pointed out, the Convention of 1787 gave to the representation of each State in the Senate, would not prevent the nation from abolishing the Senate altogether. The Convention did not venture to control the future so far as that, though no doubt many of the members would have been willing to do so. The law is that, so long as the Senate lasts, no State can be deprived of its equal representation in it, without that State's consent. The constitutional reformer, therefore, has first to consider whether the entire abolition of the State comes within the range of practical politics. I think not. The Senate has gradually taken deep root in American snobbery, it offers a number of lordly offices for eminent office-seekers, and it represents provincial pride. Furthermore, besides being "in the European fashion" (superficially, for in no other country is there a second chamber so constituted), it has been as a fashion repeated in all the States. Had the substance as well as the form of the national Senate been reproduced in the several States the whole system must have long ago broken down, like the "rotten borough" anomaly in England. But as in the States there is no disproportionate representation in the second chamber, nor any really different origin of the two Houses, the bicameral system is substantially the division of one representative body into two. The fairly smooth working of the double-legislatures of the States has been accepted by many people as a warrant for the soundness in principle of the national Senate, though there is no analogy between the two. The normal State Senate represents the somewhat delocalised interests of each district, a larger community and a more constant popular sentiment, but the constituencies of both Houses being the same people, there is little danger of one body obstructing the other. The national Senate represents local interests, antiquarian pride, sectional sentiment, traditional notions of sovereignty as superior to justice, and the power of a minority to weigh equally with a majority without being superior to it. Instead of its being the conservative, calm, mature wisdom of the nation, the Senate has been the centre of disintegrating elements. It may, I think, be proved that had there been no Senate there had been no civil war. Yet I remember a conversation with Charles Sumner, after he had been felled in the Senate, in which, when I stated these objections to such an unrepublican body, he—even he, scarred monument as he was of its provincial violence—urged in reply the smooth working of the senatorial system in the States!

The raising of this question in *The Open Court* revives in me an old hope that there may be formed in America "Constitutional Associations," like those founded in England a hundred years ago, for the study of the science of government. And I do not know any place where such a society might better be founded than in the most American of our cities—Chicago. It is not only the Senate that should be dealt with, but other institutions, more especially the presidency. Concerning this unrepublican office I shall have something to say in a future paper, but will now confine myself to some reflexions about the Senate.

The argument which has recommended the bicameral system to political philosophers, is the liability of a single House to impulsive and precipitate action. This liability finds apparent illustrations in the history of the French Revolution. In the first constitution of Pennsylvania, framed mainly by Franklin and Paine, there was but one legislative chamber; but very early in the French Revolution Paine came to the conclusion that, though there should be one representation only, the elected representatives should be divided, by lot, into two chambers,—No. 1 and No. 2, or A and B. Measures should be introduced into one or the other chamber (alternately). While the measure was debated in No. 1, No. 2 should listen. Then when it passed to debate in No. 2, the representatives in the

latter would come to the subject without being committed, and with the advantage of knowing most of what could be said for and against it. The joint vote of the two chambers would decide the matter. This plan it will be seen, is not inharmonious with that adopted in the majority of American States.

But beyond this lies another question, one which the enfranchisement of vast masses of ignorant people renders of increasing importance. A legislature should be the collected wisdom and knowledge of a nation, not a mere reflexion of its prejudices and errors; and how is this to be selected from masses of people who are not wise, nor learned in the principles of government? It is notorious that in democratic countries the ablest and best men shrink from vulgar competition for the popular vote and do not generally enter public life. The enlargement of the franchise in England has been accompanied by a marked decline in the character of Parliament. It is not easy to see how high statesmanship can be developed in any country where the representative is more and more expected to be a mere messenger to carry to the legislature the programme of his constituency, and may be cashiered for any independence of thought. Nor can congressional eloquence be developed when the orator is dealing with a foregone conclusion, formed at the polls. This kind of mere delegation might as well be intrusted to postmen or telegraph-boys. In England, the House of Lords is sometimes wrongly obstructive where its class interests are involved, but on general questions it exercises an independence above that of the Commons, whom the next election holds in awe. Thus, it is known that a large majority of the Commons are in favor of opening the museums and galleries on Sunday, yet they regularly defeat that measure, through fear of their remote Scotch and Welsh constituencies; whereas the Lords have passed the measure which the Commons invariably reject. I have no doubt that the people generally would vote for the ablest man; ignorance does not love ignorance; but the advantages of his ability should be secured from their prejudices, and he should be secured from his own timidity.

This, I believe, could be secured by the introduction of the (secret) ballot into Congress. The people would then have to choose the wisest and best man, with more care than at present, knowing that they could have no control over his vote. On the other hand, the representative would be unable to play the demagogue by parading his votes in favor of popular prejudices. The representative might thus also be withdrawn from the pressure of party leaders and "whips," as well as from liability to bribery. Men will not pay for votes they can never be certain of obtaining.

Finally, there remains to be considered the peril of the tyranny of majorities. To this danger I have recently called the attention of your readers (in my treatise on "Liberty"),* and have little to add on the general subject. I am writing this in Paris, not far from where Condorcet, Brissot, Paine, and some others labored on a constitution which was to harmonise universal suffrage with individual liberty. They believed that this could be done by a Declaration of Rights. Around the individual was to be drawn a sacred circle, including his personal, natural, inalienable rights, which no majority could invade, and which could never be subjects of governmental control. This was Paine's Republic, as distinguished from a democracy. In America (1786), when the States were making preparations for a Constitutional Convention, he sounded his warning about majorities:

> "When a people agree to form themselves into a republic (for the word *republic* means the *public good*, or the good of the whole, in contradistinction to the despotic form, which makes the good of the sovereign, or of one man, the only object of the government), when, I say, they agree to do this, it is to be understood that they mutually resolve and pledge themselves to each other, rich and poor alike, to support and maintain the rule of equal justice among them. They therefore renounce not only the despotic form, but the despotic principle, as well of governing as of being governed by mere will and power, and substitute in its place a government of justice. By this mutual compact the citizens of a republic put it out of their power, that is, they renounce, as detestable, the power of exercising, at any future time, any species of despotism over each other, or doing a thing not right in itself, because a majority of them may have strength of numbers sufficient to accomplish it. In this pledge and compact lies the foundation of the republic: and the security to the rich and the consolation to the poor is, that what each man has is his own; that no despotic sovereign can take it from him, and that the common cementing principle which holds all the parts of a republic together, secures him likewise from the despotism of numbers: for despotism may be more effectually acted by many over a few, than by one man over all."

With this principle Paine indoctrinated the real statesmen of France; and the Declaration of Rights prepared by him and Condorcet (translated in my "Life of Paine," II, p. 39) is by far the most perfect instrument of the kind ever written. Whether such a constitutional compact would have proved adequate cannot be known. The statesmen who endeavored to substitute it for the revolutionary despotism of Robespierre and his staff were guillotined, and a really republican constitution remains yet to be tried. But American experiences seem to show that popular prejudices and passions cannot be effectually prevented from overriding constitutional guarantees of individual rights, by legislative and legal quibbles, unless restrained by some such power as that represented by our executive veto, though sometimes in a mere partisan way.

Could not our Senate, since there is little prospect

* *The Open Court*, Nos. 327, 329, 331.

of abolishing it, be developed into such a restraining power? Might not its power as an equal legislature be taken away, its basis modified, and a function assigned it of useful revision? One of the two Senators of each State might be chosen by the alumni of its colleges and learned societies, placing in the revising council a compact force representing a common interest,—the Republic of Letters. The other Senator might perhaps be left as now to selection by the Legislature. These men, though liable to impeachment, should be chosen for terms long enough to save them from the temptation to cater to popular prejudices. They should not be eligible for other offices,—certainly not for the Presidency or the Cabinet. Their function should be to discuss and revise measures passed by the House of Representatives, this function being altogether withdrawn from the President (so long as that dress-coat monarch shall continue). This Senate would have a suspending veto. It might return a measure to the Congress twice (say), after which, if passed a third time, the measure to become law without any further action on it by the Senate. Experience might at some time suggest the necessity of requiring a somewhat larger majority of representatives than that which originally passed the measure, to overcome the objections of the Senators. For this body, so removed from the *aura popularis* and from corrupting ambitions, would thus represent the simple force of reason, of right, and argument. The mere cock-pit spirit which often arises between two equal houses, in a competition of mere force, could not be evoked when one side conceded in advance the superiority of the other in mere strength, and used no other weapon than argument.

Postscript. Today (February 9), when the proof of this article reached me, it is announced that on Tuesday next the French Chamber of Deputies will begin their discussion of proposed changes in the Constitution. The first alteration proposed is to make the senatorial veto suspensive instead of absolute. The French bicameral system was avowedly borrowed from America, but the Senate is afraid to assert its equal powers against the representatives of the people, and is becoming a nullity. Probably, if it shall be turned into a revising and restraining body, it may become one worthy of being imitated in the country from which it was,—as a bicameral feature, though not with our "rotten borough" basis,—imported.

CURRENT TOPICS.

The dramatic ending of Mr. Gladstone's political career was not without some elements of comedy. At the very moment when he was threatening the peers, he was actually manufacturing two more of those Corinthian "pillars of the State." By very nearly the last official act of Mr. Gladstone, two commoners, Mr. Stuart Rendell and Sir Reginald Welby, who it is to be presumed have done the State some service, have been "raised to the peerage," and this little bit of sarcasm contains within it all the subtle elements of refined humor. Declining a peerage, Mr. Gladstone creates peers. Refusing to be kicked up stairs himself, he does not scruple to kick up other men By this rather inconsistent action, Mr. Gladstone says to Mr. Stuart Rendell and Sir Reginald Welby, "a peerage raises you, but it would lower me. I will not allow them to reduce me to the rank of a lord, but I will elevate you to that grade." The compliment seems equivocal, but no doubt the recipients of it are grateful for the honor, and their wives and daughters will be proud, because a woman of title belongs to the aristocracy by force of law, and social eminence is a luxury still in England. There are men in that country who regard a coronet as a barbarian trinket and yet accept it for the sake of their families and the social distinction it confers upon their wives and children. Sir Robert Peel, a great Prime Minister, not only would not be a lord himself, but he commanded in his will that no son of his should ever accept a peerage for any service done by their father to the State. One of his sons is now Speaker of the House of Commons, and for that reason will be made a peer, but he will be appointed for his own services, and not for those of his father.

* * *

In the good old times whenever the king and his courtiers went a-hunting, it was a rule of etiquette that every man in the party should swear that the king killed all the game; and if any of the courtiers made a claim for his own bow and arrow or spear, he was immediately handed over to the Lord High Executioner and beheaded. At the same time it was the duty of the Court chronicler to tell the story of the sport and multiply the number of the slain by seven so as to exaggerate the prowess of the king. The same etiquette and similar customs prevail in our own country at this day, as appears by the work of the court chroniclers who, after the manner of old Froissart, discourse of knightly chivalry and extol the warlike expedition conducted by the President of the United States in the year 1894 against the piratical ducks and drakes that vex the waters of North Carolina and the Lake of the Dismal Swamp. The chronicler who was on duty at Elizabeth City was probably new to the business, for on the 5th of March he telegraphed a mournful story to the effect that the President's party had killed only three swans and two geese. He was probably beheaded at once, for the court historian at Norfolk telegraphed the same evening as follows; "The President arrived here to-night. He said he had killed about thirty ducks and twenty geese and swans." Nothing so miraculous as that has appeared since Falstaff multiplied the men in buckram suits; three swans and two geese expanded into thirty ducks and twenty geese and swans. And the courtiers and retainers all declared that the half had not been told.

* * *

It was not until the President's triumphant hunting-party returned to Washington that we got any properly exaggerated return of the killed and wounded in that successful expedition. For exuberant and ornamental fiction we must go to the flattering scribes who, mentally dressed in the king's livery, hang about the gates of the royal palace and proclaim the exploits and the glories of the great. One of these in loyal adulation declares the net result of the expedition to be "thirty-one brant, thirteen swans, eight geese, six snipe, and two ducks"; and when the inhabitants of Snobdom, sixty-seven million of us, inquire who shot them, and how much glory is to be given to each gun, he pretends that information of that kind is a State secret that Court etiquette will not permit him to reveal. Cautiously, as if his own head and the heads of all the party were in danger, he says, "Nobody will disclose the tally of the individual shooting." Whenever any of the party does "disclose" anything, he is very careful to say that the President shot

the birds, as was the style in the days of old. Another chronicler while confirming the story of the shooting, shows us by what fine discipline the ancient etiquette is preserved. Speaking with becoming pride of the brant, and the ducks, and the snipe, and the swans, he says: "Secretary Gresham and Commander Evans insist that the President shot the most of them, even bringing down two swans at a single fire—one with each barrel." It is distressing to learn from this kitchen gossip that the President "looks as if he had been constantly in the sun and wind, and the skin has peeled off the end of his nose." Some persons think those tawdry personal details are not worth printing, but they are—to editors; and they will be printed so long as millions of people consider them worth reading.

* * *

For three or four weeks to come Chicago will be in the "maelstrom" of a political campaign. Township officers and city aldermen are to be elected in April and as the perquisites promise to be large this year there is a good deal of political activity in the different wards. The "Christian citizenship movement" is becoming rather troublesome to certain candidates, for its purpose is to support only the best men for office, independent of party nominations, and the "Christian citizens" are very enthusiastic and aggressive too. Many of the ministers are interested in the movement, and their churches will be thrown open every night for public meetings in behalf of municipal reform and honest men. A most encouraging beginning was made on the 6th of March at the Warren Avenue Congregational Church, where a very large and enthusiastic meeting was held. It was presided over by Mr. O. N. Carter, attorney for the drainage board, and the principal speaker was Mr. W. E. Mason, a veteran politician, formerly member of Congress, and one of the most effective campaign orators in the Republican party. His appearance was convincing evidence that the movement is entirely disinterested and non-partisan, because if it had any taint of partyism in it, Mr. Mason would not give it any countenance at all. He exhorted the congregation to vote "upon every question from the election of a town officer or ward alderman to the office of president." He even "wanted a law passed" compelling every citizen to vote, and especially to vote Mr. Mason's ticket, and in this he reminded me of my old friend Swarington, who was Methodist minister at Marbletown. One night, at the Marbletown Mutual Improvement Association and Hesperian Debating Club, the question being on the duty of the citizen to vote, Brother Swarington arose and said: "Every man who votes right ought to vote, and every man who votes wrong ought to stay at home on election day; and what I mean by voting right, is voting the Republican ticket."

* * *

In the province of Kansas they carry the principle of a protective tariff to its logical conclusion. At the town of Concordia, in that province, the young lady teachers in the public schools are in the reprehensible habit of getting married and quitting work, sometimes in the very middle of the term for which they have engaged themselves to teach, thus causing much inconvenience to everybody but themselves. To correct this practice the Board of Education has adopted a rule providing that hereafter "should any of the lady teachers of the Concordia schools commit matrimony during the term for which they have been elected, they shall forfeit a sum of money equal to one half month's salary, provided they take a home man, and a sum equal to one month's salary in case the groom is imported from some other county or State." By this law a discrimination amounting to fifty per cent. *ad valorem* is made in favor of the home article, and against the foreign product. At this moment three of the lady teachers are engaged to be married, and their prospective husbands are all "foreigners," within the meaning of the law. The girls will resist the tariff on matrimony and will test its constitutionality in the courts, for if contracts in restraint of marriage are not favored by the law, why should school board regulations in restraint of marriage be allowed.

* * *

Last week my family paper, the *Chicago Herald*, spoke of the American Senate as "a convocation of doddering idiots," a description altogether inappropriate, as the *Herald* will doubtless now côncede. The senatorial manipulation of the Wilson Bill, instead of being idiotic, was a bit of crafty statesmanship worthy of the most thrifty patriots in any age. Every day for weeks the Senators with itching palms dexterously shuffled and cut the different schedules as if the Wilson Bill were a pack of cards; and every day they juggled the markets and bet money in Wall Street on their own game. Like monte men at the races, they allowed their confederates to show false cards to the fools, and when the victims bet, behold, another card was there. Pretending to honorable secrecy, they allowed false information to "leak out," and by changing it every morning and contradicting it every afternoon they kept the mercury running up and down in the stock market thermometer anywhere between 70 and 100, buying and selling according to the fluctuations they themselves had made. One day it "leaked out" that sugar was to be taxed one cent a pound, and this did very good service for a couple of days; then that leak was plugged up and another one opened, revealing the important fact that the tax was to be only half a cent a pound, and then it was to be only a quarter of a cent, and then an eighth; next it made a jump to a cent and a quarter, and then back again; then it "leaked out" that sugar was to be on the free list, and then the conjuring was all done over again and again; the people wondering all the time why it was that the Finance Committee of the Senate made no report upon the Wilson Bill; a conundrum that was correctly guessed out by some New York editors, who vehemently declared that the bill was delayed in order that certain Senators might cipher information to their brokers on the stock market with instructions to buy or to sell.

* * *

A general accusation to the effect that members of the Senate are using their legislative powers and their senatorial knowledge for stock-jobbing purposes may be borne with intrepid silence, but when it takes the form of a specific charge against individual Senators, pointed out by name, their silence is almost a confession. A New York newspaper having asserted that Mr McPherson, Mr. Vest, and some other Senators whose names were mentioned, had been speculating in sugar stocks and holding back the report on the Wilson Bill for their own profit, Mr. McPherson "arose" in the Senate, as bold as brass, and said that he, and he alone, was responsible for the delay in reporting the bill, and that he had caused the delay because he wanted some changes made in the direction of higher duties. Further, it was true that his broker had bought for him a thousand shares of sugar stock, but without his knowledge or consent, and on learning the fact he had ordered him to sell it again, and he had not purchased any sugar stock since. Mr. Vest followed Mr. McPherson, and said that he had not bought any sugar stock, and that the man who said he had was a liar. The other suspected Senators answered not, and although, says the report, the galleries waited with some anxiety for the next senatorial confession or denial, it came not, "and the Senate soon settled down to its usually tranquil state." Unless the accused Senators, or those who are not accused, ask for a committee of investigation, suspicion will settle down upon the whole body of the Senate, and its tranquillity will be looked upon as that of a stagnant pool. Either way, as soon as the people find out that the men in the Senate who govern them are a sordid corporation, legislating for their own profit, and not for the public welfare, the days of the Senate will be numbered. Like the House of Lords, it must be "mended or ended."

M. M. TRUMBULL.

CORRESPONDENCE.

"MOTHER'S PIES."

To the Editor of The Open Court:

GENERAL TRUMBULL is no doubt a great thinker, a keen analyst and a puissant writer in the field of *belles lettres*, science, art, political economy, etc., and I intensely enjoy his weekly contributions, but when it comes to philosophising upon that most profound of all mysteries and its esoteric ingredients—"Our Mother's Pie"—then, to use a military parlance, "he shoots way off of the mark"! Of course his mother's pies, or mother Jones's pies, or any mother's pies were no better than the pies made by those who were not mothers, or by those who never will be mothers, or by those who never can be mothers—French male cooks, for instance. This he tacitly concedes—at any rate he does not contend to the contrary, but insists: "Nobody but your own mother ever can or ever could give to the elements of a pie that ethereal flavor, and that spiritual potency, which makes it, for you at least, a memory of home forever. Unless all their ingredients are mixed with her love, touched by her hands, and seasoned with her own spirit, there are no pies like your mother used to make."

But, pray, how about the cook's pie or the hired girl's? Has any sound and healthy boy of ten or sixteen ever seriously discriminated between the "ethereal flavor" of the mother (!) or the seasoning of the cook?(!) Or discerned in such pie the gentle love of mother or the (often) churlish disposition of the servant? Have these psychological potencies, spirituelle cogencies or hypnotic emanations really exerted an influence upon the boy? Or is the sole secret—why our mothers are alleged to have been better cooks than our wives or any body else—the simple fact that, as a man, we have a different constitution—nature's processes of growth are completed; the necessity for food is not so urgent; hence that terrible gnawing of the stomach, concomitant with a ferocious appetite has subsided. Let us give our wives due credit: Nothing else ever made mother's (or the hired girl's) pie—though often doughy and greasy—taste so much better than the most fragrant delicacies served at our own home or at the finest table d'hôte.

If you have a boy, try it: Let his mother bake a pie and give each one half. Then if the boy does not place himself around the pie in half the time that you do, I pay for a fine cigar for both you and the General. OTTO WETTSTEIN.

REMARKS BY GENERAL TRUMBULL.

I was afraid it would come to this; I thought at the time it was printed that I ought to have labelled with big letters my comment on pies, in order that logical men might understand it. Neglecting to do so, I am at the mercy of Mr. Wettstein, because, looking at a pie as merely a lump of dough, his criticism is mathematically sound. From an earthy point of view, Mr. Wettstein is undoubtedly right, because a pie being a genuine good-to-eat physical fact, practical "vittles," there in no ideality in it.

Taking a materialistic view of it, Mr. Wettstein resolves the discussion into a mere matter of chemistry, for he is able to analyse a pie and show that there is no sentiment in it, nothing but flour, and milk, and eggs, and fruit, and some other substantial elements. He can prove by his own taste and appetite that a pie has no ethereal flavor and no spiritual potency, whether it was made by his own mother, or by that inferior domestic whom he calls the "hired girl." Considering life as essentially pie and potatoes, and only these, Mr. Wettstein reasons well, but if somebody else fancies that his mother's cookery charmed the pies of his boyhood and gave them psychologic virtue, why not leave him the joys of his imagination? I know a man who thinks that a cup of coffee handed him by his wife is better than the identically same article offered him by somebody else; and it *is* better—to him.

The pieman who advertises "pies like your mother used to make" may not be so learned in the mechanic arts as Mr. Wettstein, nor so skilful in brushing fancy from fact, but he is a more profound philosopher. He knows nature better, and he sees what Mr. Wettstein does not see, the electric powers in the soul that influence human action. He knows how delicious is the recollection of mother's pies, and he thinks that if he can touch the chord of memory that stretches back to childhood's home he will get a response in a call for pies. He boasteth not of his pie materials, their freshness and their other qualities, but he expresses every excellence in a single phrase, and promises that if you trade with him he will give you "pies like your mother used to make."

The man who says that a mother's pies are no better than any other pies would say that a mother's hands are no better than the hands of Sairey Gamp in smoothing a boy's pillow and tucking him into bed at night. M. M. TRUMBULL.

NOTES.

A propos of the discussion on the National Senate in this number of *The Open Court* we take the opportunity again to remind our readers that Prof. H. von Holst, our great constitutional authority, has promised us an article on the subject. Professor von Holst's views, which are rather conservative, may be expected to differ from the suggestions made by the writers of this number of *The Open Court*.

Having been asked where President Harper's "Lectures on Genesis" can be obtained, we will state that they are to appear in *The Biblical World*, (University Press of Chicago, Chicago, Illinois,) beginning with January, 1894. The lectures, it will be remembered, are delivered Saturday evenings at the Memorial University Extension Centre, Oakwood Boulevard and Cottage Grove Avenue, and before the Faculty and students of the University Sunday afternoons. They are the same which have created such a stir in the theological world.

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MYRA BRADWELL.

BY M. M. TRUMBULL.

The death of Mrs. Myra Bradwell, late editor of the *Chicago Legal News*, brings to memory again some ancient history wherein she appears heroic. I say ancient history, because it really seems as if the legal statutes that made her "ineligible" to certain offices and occupations were of the old world and of the thirteenth century. We can hardly believe that they prevailed in Illinois not more than thirty years ago.

It was Mrs. Bradwell's fortune in early life to marry a lawyer, and a part of her dowry was an opportunity to study law. She improved this advantage, and after a few years became herself a lawyer, but the statutes of Illinois being all of the masculine gender, she was forbidden to exercise her profession, for the magnanimous reason that she was a woman; and this was the ruling of the Supreme Court of Illinois. I use the word "lawyer" with due deliberation, because, after Mrs. Bradwell had passed with credit the examination prescribed as a qualification for the bar, she was to all intents and purposes a lawyer, whether admitted to the bar or not. Mrs. Bradwell was not forbidden to practise law because she was not a lawyer, but because she was a woman.

Hopeful and brave, conscious that her cause was just, Mrs. Bradwell carried the case on a writ of error to the Supreme Court of the United States, and there also the decision was against her, Chief Justice Chase alone deciding in her favor. A comical anachronism in the nineteenth century was the spectacle of six or seven motherly old gentlemen in Washington, dressed in black frocks, poring over feudal precedents, and deciding that because of the 21. Edward the Third, or the 15. Henry the Eighth, a woman must not be permitted to practise law in Illinois.

Afterwards, an application was made by sixty prominent lawyers of Chicago for the appointment of Mrs. Bradwell to the exalted and illustrious office of Notary Public, but the Governor gravely decided that a married woman was not eligible to such a high position, because, being absorbed into the Nirvâna of wedlock, her identity was lost in her husband, and therefore she could not give a bond; and the ludicrous part of it was that the Governor apologised for his action and threw the blame upon the law. "There is no one," he said, "whom I would more cheerfully appoint, if the matter were within the limits of my official discretion."

It is not so much by abstract reasoning as by visible examples that reformations come, and Mrs. Bradwell offered herself as a living example of the injustice of the law. A woman of learning, genius, industry, and high character, editor of the first law journal in the West, forbidden by law to practise law, was too much for the public conscience, tough as that conscience is; the Tory barriers that excluded Mrs. Bradwell were broken down, and now, because of her labors and sacrifices, women may practise law and engage in many other profitable employments to which they were not "eligible" then; and, what is a very important matter, they may, because of her exertions, own their earnings, too.

Mrs. Bradwell chose as the motto for her paper the words "*Lex Vincit*," but these express merely the physical power of the law, and not its moral qualities. The law conquers by force, whether it be right or wrong, but Mrs. Bradwell's own victory over it gives us a comforting assurance that where the law is wrong it may itself be conquered. The laws of nature are indeed invincible, but the laws of men are not, and the glory of Mrs. Bradwell's political work is that she conquered some bad laws and abolished them.

There was nothing theatrical or spectacular in Mrs. Bradwell's work, but with the courage of a soldier and the strategy of a general she went about it and did it. For thirty years she was an active officer in various associations advocating and advancing social and political reforms and especially those that interested women. She was a member of the Board of Lady Managers of the World's Fair, and Chairman of the Committee on Law Reform in the Auxiliary Congress. She read a paper before the Congress last May, and that was her last appearance on the platform.

Mrs. Bradwell's public labors gave an added lustre to her private virtues, and instead of contracting, they expanded the horizon of home. She proved that the sphere of woman was not only at home, but in the lawyer's office, or in the editor's office, or wherever she could do something to make home happier. Her

domestic life was bright with duties done, and none of them the less well done because of other duties in another field.

HUMAN SACRIFICE.

BY DR. W. H. GARDNER.

[CONCLUDED.]

At the time of the migration of the Israelites from Eygpt (*circa* 1320 B. C.) all of the tribes that occupied the land of Canaan, as well as the Amalekites, Midianites, and Moabites, whose territories they traversed, were worshippers of the sun-god in some of his forms. And whether their tribal god was appealed to as Baal, Chemosh, Milcom, Ashtoreth, or Moloch, it was the same deity, only under a different aspect. Indeed, if it were possible to turn back in the history of the race to the earliest age of human thought, when man first was able to formulate an idea of a deity, we would doubtless find that the only idea he had of a god was the sun. To him, naked, unarmed, helpless, ignorant even of the art of producing fire at will, the sun was the source of light and warmth and life and all good; what wonder that he should bow in reverence and kiss his hand when he beheld the face of his god in the morning, and silent and sorrowful seek his bed of leaves and rushes as the departing glories of his lord sunk into the western deeps or faded away over the glowing mountain-tops.

But not always was the sun a beneficent, life-giving deity, whose genial beams fructified the receptive earth and nourished and sustained all animate nature. At times he became jealous and angry, and then he was a cruel and bloodthirsty monster, whose fierce heat withered the fruits and grain, drank up the water in the rivers and fountains, consumed the blood in the veins of man and beast, and spread famine and pestilence throughout the whole land. Then instead of being worshipped with offerings of fruits and flowers, and festive songs and dances, his altars were glutted with the blood of human victims poured out to appease his anger.

In the sacred chronicle of the Hebrews, instances of human sacrifice among the Canaanites are so frequently mentioned, that it is scarcely necessary to call attention to them. We must, however, note especially one instance—that of Mesha, King of Moab, sacrificing by fire his eldest son, who should have reigned in his stead, after his disastrous defeat in the valley of Edom by the armies of the three kings.[1]

Encompassed, as the Israelites were, by tribes and nations whose conceptions of a deity were so cruel and bloodthirsty, it cannot be wondered at that, despite the teaching of their prophets, the mass of the people and many of their kings, frequently forsook the purer worship of Jehovah, followed after other gods, and passed their children through the fire to Moloch. From many passages in the Old Testament, it is not at all improbable that the primitive idea of the Israelites regarding Jehovah was not materially different from those of the nations about them regarding *their* gods. It is not the place here, however, to discuss the evolution of the monotheistic conception of the God of Israel, but, as the following passages occur to me, I cannot refrain from quoting them, since they seem to indicate that at least in the earliest thought of the Israelites, Jehovah was an apotheosis of the sun and manifested his presence by light and heat, or its earthly symbol-fire: First, "Jehovah spake to Moses out of a burning bush, and the bush burned with fire and was not consumed."[1] Next, he gave the Israelites, as their pilot through the mazes of the desert, "a pillar of cloud by day, and a pillar of fire by night."[2] "And the sight of the glory of the Lord was like devouring fire on the top of the mount in the eyes of the children of Israel."[3] "The Lord thy God is a consuming fire."[4] "He made darkness pavilions round about him, dark waters and thick clouds of the skies. Through the brightness before him were coals of fire kindled. The Lord thundered from heaven, and the Most High uttered his voice."[5] "At the brightness that was before him his thick clouds passed, hailstones and coals of fire. The Lord also thundered in the heavens, and the Highest gave his voice; hailstones and coals of fire."[6] Other passages will readily suggest themselves to those conversant with the books of the Old Testament.

With these crude conceptions of their deity, differing so little from the gods of the tribes about them, it is only natural that the God of the Israelites should have been worshipped by similar rites as were Baal, Moloch, Chemosh, or Ashtoreth, and that in his worship human beings were not unfrequently sacrificed to him. The *nonchalance* with which Abraham obeyed what he thought to be the will of Jehovah in attempting to offer up his only son Isaac,[7] indicates not only that the practice of human sacrifice was common in the land of "Ur of the Chaldees" from which he had migrated, and among the tribes by which he was surrounded, but it also shows that in the mind of Abraham and the recorder of the incident, that the sacrifice of an only son was a perfectly natural and legitimate demand for a God to make upon his worshipper. It would seem from the curse laid by Joshua, the war-

[1] II *Kings*, iii, 27; Conf. also *Ibid.*, xxiii, 13; xiv, 3; *Leviticus*, xviii, 21; *Ibid.*, xx, 2–5; *Deuteronomy*, xii, 31. Many other citations will occur to those familiar with the books of the Old Testament.

[1] *Exodus*, iii, 2.
[2] *Idem*, xiii, 21–22.
[3] *Idem*, xxiv, 17.
[4] *Deuteronomy*, iv, 24.
[5] II *Samuel*, xii, 12, 13, 14.
[6] *Psalms*, xviii, 12–13.
[7] *Genesis*, xxii, 2–10.

like captain of the Israelites, upon any one who should rebuild the city of Jericho, after he had captured it and razed its walls to the ground, that it was the custom in that age to propitiate the deity by the immolation of human victims upon the founding of a city.[1] We also read in II Samuel, that King David, to avert the distress caused by a famine in the land, delivered two sons and five grandsons of Saul to the Gibeonites, who sacrificed them all in the beginning of the barley harvest.[2] And in Judges where Jephtha sacrificed his only daughter to his God in fulfilment of the rash vow he had made when he went out to attack the Ammonites.[3] In so many other places in the sacred chronicle of the Israelites are allusions made to human sacrifice that the conviction is forced upon us that this cruel rite was practised as commonly among the Israelites as it was among the other tribes occupying Canaan.[4]

One especial modification of human sacrifice could only be consummated by the king or ruler sacrificing his own son (or daughter) to turn away the wrath of the deity from his people. This was called *the great* or "*mystic sacrifice.*" One case is cited in the "Preparatio Evangelica" of Eusebius from "Sanchoniathon's History of Phœnicia" as follows: "And when a great plague and mortality happened, Kronos offered up his only son as a sacrifice to his father Ouranos, and circumcised himself and compelled his allies to do the same; and not long afterward he consecrated, after *his* death, another son named Muth, whom he had by Rhea."[5] It is quite possible that this is only another version of the similar legend regarding the attempted sacrifice by Abraham of his only son Isaac, but in later times the sacrifice of the two sons and five grandsons of Saul by King David, the sacrifice of his son by Idomenius, King of Crete, and similar instances in the Phœnician and Carthagenian annals abundantly show that, among the peoples of those times, the sacrifice of the son or sons of a king was considered to have especial merit in the eyes of their gods and to be very potent in securing their favor. And I ask especial attention to these cases as I believe the idea involved in them had great influence on the religious conceptions of the early Christians.

In reviewing the subject of human sacrifice we cannot fail to be impressed by the following curious facts:

First: The widely-spread *prevalence*, and the *persistence* of this cruel rite.

Second: The degraded and bloodthirsty conception all the nations of antiquity had formed of the Deity.

Third: The similarity of their conceptions of a vicarious sacrifice—shedding the blood of an innocent person in order that the guilty might escape.

In the instances of human sacrifice here cited, to which many more could be added if deemed necessary, it is not intended to assume that they are all incidents of veritable history, many of them are doubtless legends or traditions handed down orally by sire to son from the earliest ages, but they are not on this account less useful for the purpose of generalisation, since they show as unmistakably the prevailing tone of thought at the (alleged) time of their occurrence, as if they were properly authenticated. So much of the actual history of the early nations of the earth has been lost to us by the ravages of time, or has come down to us through ambiguous sources, that many of their manners and customs are still but imperfectly known, for though the cuneiform characters of Assyria and the hieroglyphs of Egypt were in use two or three thousand years B.C., yet we have derived the greater part of our knowledge of these subjects from Greek or Roman sources, and we must recollect that the sacred gift of Cadmus has borne but scanty fruit upon the soil of Hellas up to the time of Solon (638 B.C.). The less civilised tribes were entirely ignorant of the art of writing or any other means of preserving their records save by oral teaching, and similar rude mementos to the pile of stones Joshua set up at Gilgal to commemorate the crossing of the Jordan.[1] Hence much of the history of the past must ever remain to us a sealed book, though with all of these obstructions in our way, there is yet enough of authentic history left, to show us that, at the Christian era, the idea of human sacrifice was not only a widely spread but deeply rooted idea in the ancient world; and throughout the length and breadth of the Roman empire from the rugged fastnesses of Britannia Secunda (Wales) to the reedy banks of the Euphrates and Tigris, the altars of the gods were constantly crimsoned with the blood of human victims.

Nor was the persistence of this custom less remarkable than its widely spread prevalence. Davies informs us that in some parts of Caledonia and Wales, *human sacrifice* among the Druids was not finally suppressed until the close of the sixth century A.D.[2] In some parts of India the custom has survived almost to our own day. In the transactions of the Asiatic Society, for 1841, there is an account of the religion of the Khonds of Orissa, given by Lieut. McPherson, in which he says:

"Among the Khonds of Orissa, one of the ancient kingdoms

1 *Joshua*, vi, 26. It is also probable that the slaying of Remus by his brother Romulus had a similar significance. *Livy*, I, 7.

2 II *Samuel*, xxi, 610.

3 *Judges*, xi, 34-39.

4 I *Samuel*, xv, 32, 33; II *Kings*, xxi, 6; *Ibid.* xxiii, 10; *Psalms*, cvi, 36-38; *Jeremiah*, vii, 31. Many citations showing a survival of this custom in recent times will be found in Tylor's *Primitive Culture*, Vol. I, pp. 104-108.

5 See *Corey's Ancient Fragments*, Sanchoniathon, pp. 16 et seq.

1 *Joshua*, iv, 6, 7, 20.

2 Davies, *British Druids*, pp. 462-466.

of Hindustan, human sacrifice was constantly practised up to the year 1836, A. D., when the attention of the British government, having been directed to it by one of its agents, took the most strenuous means to break it up. The victims were of all ages and both sexes; male adults, however, being held in the greatest esteem, as being most acceptable to the goddess. In some cases the victims were purchased from families of their own tribe who had become impoverished. In other cases they were captured from the plains tribes. The victims were called 'Meriah,' and were sacrificed to propitiate the earth's goddess, 'Kali,' and obtain through her favor an abundant harvest."

We scarcely need call attention to the sacrifice of Hindu widows upon the funeral pyres of their dead husbands. In 1823, A. D., there were 575 Hindu widows burned to death *in Bengal* Presidency *alone*; and as late as 1877 several of the wives of Jung Bahadur were sacrificed at his funeral obsequies.[1]

The rivers of human blood that were poured out before the shrine of the Aztec god Huitzilopoctli by his fierce priests would be incredible, were it not abundantly substantiated by eye-witnesses. Prescott says:

"Human Sacrifices have been practised by many nations, not excepting the most polished nations of antiquity, but never by any on a scale to be compared with those in Anahuac. The amount of victims immolated on its accursed altars would stagger the faith of the least scrupulous believer. Scarcely any author pretends to estimate the yearly sacrifices throughout the empire at less than twenty thousand, and some carry the number as high as fifty."[1]

Admiral Wilkes, in his exploring expedition around the world (1842 to 1845), found many of the South Sea Islanders at *that* time practising human sacrifice and cannibalism; and even to this day, in some of those islands and among the ruder tribes of Africa, these savage customs still continue.

When we look back to the dark and savage past and remember the cruel and bloody rites practised, and the oceans of human blood poured out by our ancestors in the name of religion, we stand appalled and shrink with horror from the mental conceptions they had formed of the Deity. No idea we can now form of "The Prince of Devils" could be more *studiously* and *intentionally maleficent* and *ferocious* than were their ideas of their gods; and yet the concurring testimony of history teaches unmistakably that such were their conceptions, and that in *their* thought the blood of the lower animals and human beings was always necessary to purchase their favor and assistance.[1] The reason for this is not hard to discover. The mind of primitive man was in its infancy. It had not yet reached that stage of development when it could appreciate any greater or higher power than the prince or chief who ruled over him. His chief's subtle brain and strong arm protected his tribe and punished his enemies. To him they all owed allegiance; and over them all he held absolute control—even to the power of life and death. When he died, his wives, slaves, horses, and dogs were buried in his tomb or were burned on his funeral pyre, to attend him in the other world. After his death he was deified, and then he became more powerful for good and evil than he was when alive, and his tomb became a shrine where suppliants came to offer sacrifices and pray for his protection and assistance.

Some of the later Hebrew prophets and heathen philosophers had a higher and nobler conception of the Deity; but to the great mass of the people, their gods were the deified ancestors of the tribe—anthropomorphic, sensuous, and possessed of the same attributes and desires as their worshippers. In the conception of the compilers of the Pentateuch, Jehovah was as truly an anthropomorphic and tribal god, as Osiris, Baal, Moloch, or Huitzilopochtli. And though there is extant no legend beyond that given in the first chapter of Genesis to indicate that, in the thought of the Israelites, Jehovah was the actual progenitor and ancestor of their tribe, yet the covenants made between him and Abraham, Isaac, and Jacob, and their descendants, abundantly show that he was the especial and particular god of their tribe, and that even by their enemies the Israelites were regarded as his children. Passages in the Old Testament alluding to this fact are too numerous to require citation, but I ask the critical inquirer to *reread* the book of Joshua, where the warlike captain of the Israelites recounts with the utmost *naïveté* how he captured the cities of Jericho, Ai, Makkedah, Libnah, Lachish, Eglon, Debir, and the other cities of the Canaanites, and massacred every man, woman, and child, and says that those wholesale butcheries were not only committed by the *order* of Jehovah, but with his *connivance* and *assistance*. Nor does the sacred chronicle indicate that these Canaanites had incurred the displeasure of Jehovah in any other way than in warring against the Israelites, who were trying to drive them out of their homes.

There is no doubt but that the theological ideas of the Jews underwent some changes during their long captivity among the Babylonians and Persians, from contact with the disciples of Zoroaster. Their Devil became spiritualised and dignified as he was more assimilated to Ahriman, the Persian embodiment of darkness and evil; and Jehovah became less anthropomorphic, and more the apotheosis of power and life and light and good. Yet in Jewish thought Jehovah was never the indulgent "father that pitieth his children," but rather "a jealous God, who visited the

[1] *Vide* article "Suttee" in *Chamber's Encyclopædia*, last edition.

[2] Prescott's *Conquest of Mexico*, Vol. I, Chap. 3. As I have neither Clavigers nor Torquemanda at hand to consult, I quote from Prescott.

[3] See an article by Mr. Poley in *The Journal of Philology*, No. I, for June, 1868, entitled *Chthonian Worship*, in which the author shows that the propitiation of the malignant powers, rather than the adoration of the supreme good, seemed to have formed the basis of the early religions of the world; and hence streams of human blood was the only effectual means of purchasing their favor.

sins of the fathers upon the children, even to the third and fourth generation." Every infraction of his law must be atoned by blood, and his altars were always reeking with the blood of animals sacrificed to obtain his favor. After the crucifixion of Christ and the rise of Christianity, the conception of Jehovah became still more ambiguous and contradictory, one class of his (alleged) attributes being perfect antitheses to the other.

In his *benign* aspect he teaches the doctrine of humility, charity, and the forgiveness of offences, "even to seventy times seven."

In his *malignant* aspect,[1] *all* mankind had sinned and done evil in his sight, the nursling at its mother's breast, as well as the gray-haired worker of iniquity. Through Adam they had all partaken of the forbidden fruit and their crime must be expiated, *all* the human race were doomed—Jehovah demanded their blood—to satisfy his *justice*, Jehovah must borrow the idea of ignorant, cruel humanity, and sacrifice by an ignominious and cruel death, his son begotten of a Jewish virgin by means of the Holy Ghost.

It is very hard for the people of one age and race to understand the ideas of another race, differing widely from them in time, locality, institutions, laws, and modes of thought. And it is only possible for us at this epoch to appreciate the ideas the early Christians had conceived of the Deity, when we remember that not only among the Jews, but among all the nations at the commencement of the Christian era, the sacrifice of animal or human life was one of the essential elements of worship.

In the epistle to the Hebrews ascribed to Paul,[2] where the writer says: "Almost all things are by the law purged with blood, and without shedding of blood is no remission." He enunciated no new doctrine to Jew, Gentile, or Christian, he merely epitomised the religious belief of the whole world at the date of his letter (perhaps about 50 A.D.).

When, or by whom, the doctrine was first promulgated, that Jesus, the son of the Jewish carpenter's wife, Mary, was the veritable son of Jehovah, and that by his torturing death as a malefactor Jehovah had consummated the *mystic sacrifice*, must remain unknown, all we now know is that as early as the first century after Christ, it had become the fundamental dogma of the Christian belief. What was the conception Christ himself had of the Deity it is not possible to state with certainty, since he has left us no word written by his own hand, and his life, teaching, and system of ethics, are so obscured by the interpretations of his followers that there is scarcely one truth or precept that he tried to inculcate, but what has been tortured into a meaning most probably, widely different from what he intended.

It is interesting to note the unanimity with which all the nations of antiquity accepted the doctrine of *vicarious atonement*. And still more wonderful is it that such an idea of justice should have survived to our day and be still accepted by rational, intelligent human beings not only as logical reasoning, but as the reasoning of the divine mind of the Deity himself. Nor does it matter, so far as the principle of justice is involved, whether Jesus Christ was actually the incarnated son of Jehovah or the natural son of Mary, the wife of the Jewish carpenter; in either case his sacrifice was not only unwarrantable, unjust, and cruel, but could not upon any principle of law or equity have atoned for the crimes of guilty man.

There is no doubt that Christ was a veritable sacrifice, though not a sacrifice to the bloodthirsty appetite of a ferocious Deity who claimed the blood of an innocent being for the sins of the guilty, but on the contrary, if the alleged accounts of his execution are worthy of acceptance, we must believe that he was a sacrifice to the jealousy and malignity of the Jewish priesthood.

The birth and early life of Jesus is so obscured by myth and legend that but little that is really authentic has come down to us, but it is certain that he was kind and humane and merciful, that he taught and practised the doctrine of humility, charity, and brotherly love. As Greg truly says: "We regard him not as the perfection of the intellectual or philosophic mind, but as the perfection of the spiritual character—as surpassing all men of all times in the closeness and depth of his communion with the Father. In reading his sayings we feel that we are holding converse with the wisest, purest, noblest Being that ever clothed thought in the poor language of humanity. In studying his life, we feel that we are following the footsteps of the highest ideal yet presented to us upon earth."[1] And it seems like the irony of fate that one so gentle and pure and merciful, and so permeated with the wisdom of the divine mind, should have been executed at the mandate of a malignant priesthood as a malefactor and blasphemer.

Looking backward to the commencement of ecclesiastical history, and the ridiculous word-quibbling of the early Christians, and the vials of wrath and ink that were poured out upon each other by the "Homoousions" and the "Homoi-ousions," it is singular that no one of either sect has considered that the real ques-

1 We cannot fail to see in this conception of the *dual* nature of the Deity, a mental reversion to the earliest conceptions of the Israelites, when their tribal god was the Sun in his *benign* or *malignant* aspect. See Kuenen, *Religion of Israel*, Vol. I, Chap. IV.

2 The author of this epistle is anonymous, though it is almost certain that Paul never wrote it. I quote it here, however, because it seems to embody succinctly the Jewish idea of the law of Jehovah regarding sin and the necessity of its atonement by the sacrifice of animal life.

1 Greg, *Creed of Christendom*, pp. 300–301.

tion at issue should have been *not* whether *Christ* was of the same substance of the *Deity*, but whether he was of the substance of guilty *man*, in whose stead he was believed to have been sacrificed. And before closing, I must ask attention to this peculiar aspect of *human sacrifice*, the identification and unification of the victim with the god to whom he was devoted. In some tribes his apotheosis commenced as soon as the victim was selected; and though he was held as a prisoner with no hope of escape, except by death; yet his prison was the temple of the god; he was apparelled in sacerdotal vestments, feasted with choicest food, attended by subservient priests, and provided with beautiful damsels to solace and comfort him in his captivity. When the sacrifice was consummated, some portion of the body of the victim—usually the heart—was eaten and his blood drunk by the ruler and priests. Among the ruder tribes, notably the Scythians and Aztecs, the sacrificial rite was closed by a cannibal feast upon the quivering body of the victim. Under the Levitical law,[1] the fat and blood of the victim were forbidden to be eaten by the Israelites, these portions being sacred to Jehovah, though the officiating priest was instructed to place some of the blood of the victim upon the right ear, the right thumb, and the right great toe of the worshipper, to identify him with the victim.

For more than fifteen centuries the Christian hierarchy has held human thought in leash in every land its priests have invaded. It has opposed every advancement in civilisation and refinement, combated with fire and stake and prison-cell every induction of science, and so construed the history of the past that even such a fact as the brutal custom of animal and human sacrifice has been made to appear as not only pleasing to the Deity and the sure means of purchasing his favor, but as the foreshadowing and archetype of that *mystic sacrifice* of his own son which in priestly thought, he had ordained from the foundation of the world, as the *only* means of saving the human race from the fatal effects of Adam's fall.

But despite the anathemas of priests and the bulls of popes, one after another the savage customs of our ignorant ancestors have been abolished, before the studious examination and critical thought of unprejudiced minds; and I hope the day is not far distant when reasoning beings will relegate to the limbo of the past the ideas so long held of the sacrifice of Christ and the debasing conception they have been taught of a Deity that could consent and connive at such a cruel injustice.

"Will the Lord be pleased with thousands of rams, or with ten thousands of rivers of oil? Shall I give my firstborn for my transgression, the fruit of my body for the sin of my soul?

"He has showed thee, O man, what is good; and what doth the Lord require of thee, but to do justly, and to love mercy, and to walk humbly with thy God."[1]

[1] *Leviticus*, iii, 17.

VALOR.

BY VIROE.

They said, How brave he was;
He held for death such scorn,
Leading the hope forlorn;
But 'twas not bravery;
He did not fear because
To live was slavery.

See, how he shrinks from strife!
Was e'er such craven born?
Yet in the van forlorn
They marked his palor.
Loving, he gave his life,—
Ah, that was valor.

GOETHE AND SCHILLER'S XENIONS.[2]

BY E. F. L. GAUSS.

THE SOURCE OF LIFE.

But by the climax of life, by the flower, all new life is kindled
In the organical world and in the world of the soul.

CORRECTNESS.

Blameless in all things to be is the lowest degree and the highest,
For, besides impotence, leads greatness alone to this end.

CURRUS VIRUM MIRATUR INANES.

How they are cracking the whips! May good heaven defend us! such wagons
Creaking with books of all kinds. Paper *en masse*, but no worth.

THE LITERARY AGE.

Every one writes, aye the boy writes, the silver-haired man and the matron,
Give us, ye gods, now a race which for the writers shall write.

THE UNEQUAL RELATION.

Truly our poets are light, but we could perhaps hide the misfortune,
Were not the critics themselves, oh! so exceedingly smart.

THE CRITICAL WOLVES.

When they have scented the man and are hungrily howling around you,
Wanderer, fire your gun; quickly they'll take to their heels.

TO A PACK OF CRITICS.

Gathered in packs, like the wolves, you imagine that more you accomplish;
Worse 'tis for you, for the more beggars, the fouler the air.

LITERATURE FOR LADIES AND CHILDREN.

Always for women and children! for men should the authors be writing,
Leaving for women the care and for the children to men.

THE REJUVENATING FOUNTAIN.

Fable, ye say, is the fountain of youth; oh believe me! unceasing
Floweth its genuine flood. Where? In the poet's domain.

DOMESTIC AUTHORITY.

Fault I find not with the gardener when he the sparrows is chasing;
Yet but a gardener is he, nature the sparrows brought forth.

[1] *Micah*, vi, 7–8.

[2] Prompted by the publication of the Xenia in Nos. 333, 334, 335, and 336 of *The Open Court*, and by the idea of bringing forcibly home to the American mind the worth of Goethe and Schiller's philosophic thought, Mr. E. F. L. Gauss, of Chicago, sends us the above additional Xenia in his own translation.

THE SUBJECT.

Truly the art is important and hard of one's proper comportment,
Harder however it is from one's own nature to flee.

THE GREATER VICTORY.

Who so doth conquer his heart, he is great, I admire the brave one,
But who *through* his *heart* conquers, of him I think more.

EXCEPTION.

"Why do you censure not every one publicly?" Friend do I call him,
Like mine own heart, thus I silently censure my friend.

WIT AND SENSE.

Sense is too timid and wit is too bold; it is genius only
That in its soberness bold, pious in freedom can be.

A SOLVED RIDDLE.

Out is the secret at last, why it is that thus Hamlet attracts us,
Mark ye the reason—because quite to despair he leads us.

THE MODERN PRIESTS OF BAAL.

Liberty, holy, sublime! thou great longing of man for the better!
Truly thou couldst not have worse priests for thy heavenly cause.

CURRENT TOPICS.

An angry colored woman on the South Side, vehemently scolding her disobedient boy for some delinquency, called a passing policeman to her assistance, and said, "I wish you'd take dat good-fur-nuffin Abrum Lincum an' lock him up in de calaboose, I can't do nuffin wif him." The *Chicago Herald* is in a similar frame of mind. Having labored for ten or a dozen years to overthrow the Republican party, and having succeeded at last in getting a Congress "Democratic in both Houses," it wishes all the members were in the calaboose, for it "can't do nuffin wif 'em." It flatters the Senate as "a convocation of doddering idiots," and the House as "a gang of brawling blatherskites." With delicate sarcasm the *Herald* says that if the fathers of the republic "can look down from Jerusalem the golden, they must be highly gratified at the result of their labors." If the fathers of the Republic are in Jerusalem the golden, as probably some of them are, and if they care anything about what goes on in Congress, as probably they do not, they will see that the sons of the republic are acting very much like the fathers; a little better perhaps in the matter of manners, and they debate less with knuckles and pistols than the fathers did. They shoot with their mouths now, and they aim remarkably well. I have a valued friend who was a member of the House of Representatives forty years ago, and it revives me like a camp-fire to hear him tell of the fistic battles they used to have in Congress when he was in his prime. The personalities now indulged in may be rather coarse, but they give useful information to the people, and they teach us what sort of statesmen our members of Congress are.

* * *

When you assail a man "in the heat of debate," or out of it, whatever is true of your censure will stick to him, whatever is false in it will stick to you; and this is a maxim that may well be heeded in Congress. Last Tuesday, Mr. Pence, a member from Colorado, fired skittle-balls of accusation at some of his fellow-members with as much unconcern as if they were wooden pins. He had great sport while they tumbled right and left, but the next morning he came into the House drooping and offered apologies to the crowd in that "regardless of expense" manner in which a Colorado man orders drinks. He had an excellent opportunity to do so, because, fortunately for him, the newspapers had incorrectly reported him as charging that Mr. Hainer, the member from Nebraska, was "fuller of beer than comprehension," when in fact, said Mr. Pence, "what I said was, that he was "fuller of beard than of ideas." Why a man who is long of beard should be considered short of brains, I never could understand, but such is the opinion of many beardless men, especially "in the heat of debate." Of other members, Mr. Pence had said harsher things, but he threw all his accusations into a jack-pot in Colorado style and made a sweeping apology for them all. He was like Tim Clancy of Marbletown who went to confession and then wanted to avoid giving a detailed catalogue of his sins. "Yer riverince," he said, "I've done everything but murder; now give me the absolution and make the penance light." Imitating Clancy, Mr. Pence pleaded thus: "In other utterances I have gone beyond the language that should be used in a parliamentary body. For such of them as might by any construction be deemed unparliamentary I cheerfully and gladly apologise." And, more fortunate than Tim, Mr. Pence got his absolution.

* * *

One of the most dramatic spectacles ever seen in the House of Commons was presented on the evening of March 1st, when Mr. Gladstone made that revolutionary speech which many persons regarded as a farewell to leadership in that House where he had sat as a member for more than sixty-one years. There, intellectually, and even physically strong, stood the Prime Minister of England, representing in his own person sixty-one years of English history, and sixty-one years of political evolution; a picturesque panorama stretching from the Toryism that opposed the Reform Bill and the Abolition of slavery in the West Indies, down to the Democratic Declaration of war against the House of Lords. Such a bundle of nerves and intellectuality with such opportunities for action, such a personality, with such a career, is not possible except in England, and even there it is not likely that such a prodigy will ever be seen again. I may not approve of Mr. Gladstone's measures here or there, and I may fancy that in some of them I see statecraft instead of statesmanship, but yesterday he stood conspicuous in the sight of all the world, the type and model of a Briton, laying down the government of a great empire, not because he was eighty-four years old, not from indolence, or lack of courage, or intellectual decay, but because of an unfortunate affection of the eyes which might easily have come to a younger man. Again, let us all stop quarrelling with his politics for the present, and look at his example. A member of Parliament for sixty-one years and a cabinet minister most of the time, he has never yielded to mean temptations, corruption has never tainted him; personally his private life and his public life are alike without a stain.

* * *

From patrician toryism to plebeian democracy is a long course, but Mr. Gladstone went the distance. Like Wolsey, he was "fashioned to much honor from his cradle." Great as a boy at Eton, he was greater as a youth at Oxford, and greatest of all in the senate. He graduated as a "double first" at Oxford in his twenty-second year, first in classics and first in mathematics, a distinction rarely achieved at that university, or any other. When he was twenty-three years old, the Duke of Newcastle gave him a seat in Parliament, for in those days dukes owned constituencies and voted them as they pleased. Early in his parliamentary career, Mr. Gladstone made a speech which Greville in his diary, written at the time, says was a promising performance and something of a sensation. It opened the gates of office to Gladstone, and the young politician saw in bright perspective the highest honors of the Government his own. The Tories at once perceived that his debating powers would be a great acquisition to their party, and Sir Robert Peel, himself an Oxford man, and a double first class too, put Gladstone in the line of political promotion by appointing him one of the lords of the treasury, a great position for a man of twenty-five. He went out of office with his party in 1835, and staid out until Sir Robert Peel came back to power in 1841, when Gladstone was appointed Master of the Mint and Vice President of the Board of Trade. In all the stages of the Free-Trade revolution begun and carried on

by Peel, Gladstone stood loyally by his chief; and when Peel died, his mantle, if it fell upon anybody, fell upon Gladstone. Although Peel made many changes in the laws of England, he was by nature, education, and interest, a conservative, and it is not likely that he ever could have become a radical and a democrat. He yielded to the pressure of public opinion, and it is only fair to say, to new convictions, too; and in that policy Gladstone has closely imitated Peel.

* * *

I have read of a lawyer in Boston who died much lamented—by his friends, but not by his enemies; and one of these being asked by another lawyer if he was going to the funeral, said, "No, but I approve it," thus leaving his actual feelings in perplexing doubt. In like manner the current theology relating to a future life sometimes leads to a discordant mingling of sorrow and congratulation at the departure of our neighbors from this world, as, for instance, when some society resolves that, "Whereas it has pleased our Heavenly Father to remove our departed brother from this world of sorrow to the realms of eternal joy, therefore we offer our condolence to his wife and family in this their hour of sad bereavement." The expressions are kindly, although they appear to be irreconcilable, and they spring from a humane sentiment that seems easy to understand; and yet see what may come of them when they are not understood, as occasionally happens in Kentucky. The editor of the Mount Sterling *Times* recently published an obituary notice of a departed citizen and remarked in a purely sentimental way at the end of it, "he is gone to a happier home." The meaning of that appears to be plain enough, but the widow has begun a libel suit against the editor for insinuating that her husband had gone to a happier home in heaven than she made for him here on earth. The sympathy of the people down there is on the side of the widow, not only on grounds of chivalry but also because of State pride. There is a good deal of local feeling against the editor for suggesting that heaven is a more agreeable place to live in than Kentucky.

M. M. TRUMBULL.

BOOK REVIEWS.

THE RAILROAD QUESTION. A Historical and Practical Treatise on Railroads, and Remedies for Their Abuses. By *William Larrabee*, Late Governor of Iowa. Chicago: The Schulte Publishing Company. 1893. 450 pp.

This is by far the best work on the Anti-Railroad side of the "Railroad Question" that we have seen as yet. The author was Governor of Iowa for four years, and for about sixteen years he was a member of the State Senate, and in both capacities he had a great deal to do with the Railroad Question. Besides, as he informs us in the preface, "he has had experience as a shipper and as a railroad promoter, owner, and stockholder, and has even had thrust upon him for a short time the responsibility of a director, president, and manager of a railroad company."

Governor Larrabee's personal experience with railroads, their management and their mismanagement, is very interesting and instructive reading, but in addition to that he seems to have read all the railroad literature extant, and he has made excellent use of his materials. The conclusion he draws from his experience and his reading is that the abuses of the railroad system are almost incurable under present conditions. He believes that the corporate power of railroads, especially where they are in combination, is too strong for the statesmanship or the virtue of such legislators as we are likely to get either in the State Legislatures or in Congress, and that the most effectual protection against railroad abuses is to be found in government control.

Whatever may be the merits or the defects of Governor Larrabee's proposed remedy for the abuses practised by the railroads, he proves by startling facts that the abuses are very grave, and his condemnation of them is well justified. He shows that the power of discrimination possessed by the railroads amounts in many cases to a social tyranny; light and easy rates to favorite localities and firms, with extortionate rates for the oppression of their competitors; "developing" the business of certain people or certain towns at the expense and for the oppression of others, and on this point Governor Larrabee rather tenderly says: "Moreover, to tax one branch of commerce for the benefits bestowed upon another is a practice of extremely doubtful propriety, and the power to do so should never be conferred upon a private corporation."

Will Governor Larrabee give a moral glance for a moment at that last proposition and then say whether or not it is ethically and politically lawful for a public corporation to do that which it is unjust for a private corporation to do? If the Government may tax one branch of industry for the benefit of another, why may not a railroad corporation do the same thing?

"Railroads in Politics" is one of the best chapters in the book, and it would make a most excellent magazine article. It is withering in its exposure of the insidious bribery, open and covert, direct and indirect, practised by the railroad corporations on the courts, legislatures, and the press. Under the scorching sarcasm of Governor Larrabee, the judge with a railroad-pass in his pocket loses much of his dignity, and his judicial integrity appears to be constantly under temptation. Those apologetic persons who see nothing sinister in a judge's pass ought to read what Governor Larrabee says about it. No doubt, a judge, when he accepts a pass, determines that it shall not influence his judgment on the bench, but as soon as he puts it into his pocket, he is under obligations to the railroad company, not as a private citizen, but as a judge.

Governor Larrabee has arranged the facts of his case with evident care, and the argument he builds upon them is logical and strong. The chapters on "Railroad Literature" are very entertaining, both in matter and in style, and they show with admirable clearness the literary methods of the railroad corporations. Governor Larrabee's book is an important contribution to the popular side of the "Transportation Question."

M. M. T.

THE OPEN COURT.

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SYMMETRY.

A POPULAR SCIENTIFIC LECTURE.*

BY PROF. ERNST MACH.

An ancient philosopher once remarked that people who cudgelled their brains about the nature of the moon reminded him of men who discussed the laws and institutions of a distant city of which they had heard no more than the name. The true philosopher, he said, should turn his glance within, should study himself and his notions of right and wrong; only thence could he derive real profit.

This ancient receipt for happiness might be restated in the familiar words of the Psalm:

"Dwell in the land, and verily thou shalt be fed."

To-day, if he could rise from the dead and walk about among us, this philosopher would marvel much at the different turn which matters have taken.

The motions of the moon and the other heavenly bodies are accurately known. Our knowledge of the motions of our own body is by far not so complete. The mountains and natural divisions of the moon have been accurately outlined on maps, but physiologists are just beginning to find their way in the geography of the brain. The chemical constitution of many fixed stars has already been investigated. The chemical processes of the animal body are questions of much greater difficulty and complexity. We have our *Mécanique celeste*. But a *Mécanique sociale* or a *Mécanique morale* of equal trustworthiness yet remains to be written.

Our philosopher would indeed admit that we have made great progress. But we have not followed his advice. The patient has recovered, but he took for his recovery exactly the opposite of what the doctor prescribed.

Humanity is now returned, much wiser, from its journey in celestial space, against which it was so solemnly warned. Men, after having become acquainted with the great and simple facts of the world without, are now beginning to examine critically the world within. It sounds absurd, but it is true, that only after we have thought about the moon are we able to take up ourselves. It was necessary that we should acquire simple and clear ideas in a less complicated domain, before we entered the more intricate one of psychology, and with these ideas astronomy principally furnished us.

To attempt any description of that stupendous movement, which, originally springing out of the physical sciences, went beyond the domain of physics and is now occupied with the problems of psychology, would be presumptuous in this place. I shall only attempt here, to illustrate to you by a few simple examples the methods by which the province of psychology can be reached from the facts of the physical world—especially the adjacent province of sense-perception. And I wish it to be remembered that my brief attempt is not to be taken as a measure of the present state of such scientific questions.

* * *

It is a well-known fact that some objects please us, while others do not. Generally speaking, anything which is constructed according to fixed and logically followed rules, is a product of tolerable beauty. We see thus nature itself, which always acts according to fixed rules, constantly producing such pretty things. Every day the physicist is confronted in his workshop with the most beautiful vibration-figures, tone-figures, phenomena of polarisation, and forms of diffraction.

A rule always presupposes a repetition. Repetitions, therefore, will probably be found to play some important part in the production of agreeable effects. Of course, the nature of agreeable effects is not exhausted by this. Furthermore, the repetition of a physical event becomes the source of agreeable effects only when it is connected with a repetition of sensations.

An excellent example that repetition of sensations is a source of agreeable effects is furnished by the copy-book of every schoolboy, which is usually a treasure-house of such things, and only in need of an Abbé Domenech to become celebrated. Any figure, no mat-

* Delivered before the German Casino of Prague, in the winter of 1871. Translated from the German by μκρκ.

A fuller treatment of the problems of this lecture will be found in my *Beiträge zur Analyse der Empfindungen* (Jena, 1886). J. P. Soret, *Sur la perception du beau* (Geneva, 1892), also regards repetition as a priociple of æsthetics. His discussions of the *æsthetical* side of the subject are much more detailed than mine. But with respect to the psychological and physiological foundation of the principle, I am convinced that the *Beiträge zur Analyse der Empfindungen* go deeper.—Mach (1894).

ter how crude or poor, if several times repeated, with the repetitions placed in line, will produce a tolerable frieze.

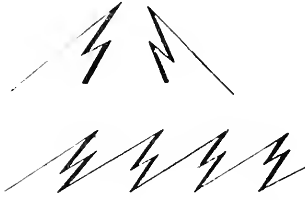

Fig. 1.

Also the pleasant effect of symmetry is due to a repetition of sensations. Let us devote ourselves a moment to this thought, yet not imagine when we have developed it, that we have fully exhausted the nature of the agreeable, much less of the beautiful.

First, let us get a clear conception of what symmetry is. And in preference to a definition let us take a living picture. You know that the reflexion of an object in a mirror has a great likeness to the object itself. All its proportions and outlines are the same. Yet there is a difference between the object and its reflexion in the mirror, which you will readily detect.

Hold your right hand before a mirror, and you will see in the mirror a left hand. Your right glove will produce its mate in the glass. For you could never use the reflexion of your right glove, if it were present to you as a real thing, for covering your right hand, but only for covering your left. Similarly, your right ear will give as its reflexion a left ear; and you will at once perceive that the left half of your body could very easily be substituted for the reflexion of your right half. Now just as in the place of a missing right ear a left ear cannot be put, unless the lobule of the ear be turned upwards, or the opening into the concha backwards, so, despite all similarity of form, the reflexion of an object can never take the place of the object itself.*

The reason of this difference between the object and its reflexion is simple. The reflexion appears as far behind the mirror as the object is before it. The parts of the object, accordingly, which are nearest the mirror will also be nearest the mirror in the reflexion. Consequently, the succession of the parts in the reflexion will be reversed, as may best be seen in the reflexion of the face of a watch or of a manuscript.

It will also be readily seen, that if a point of the object be joined with its reflexion in the image, the line of junction will cut the mirror at right angles and be bisected by it. This holds true of all corresponding points of object and image.

If, now, we can divide an object by a plane into two halves so that each half, as seen in the reflecting plane of division, is a reproduction of the other half, such an object is termed symmetrical, and the plane of division is called the plane of symmetry.

If the plane of symmetry is vertical, we can say that the body is of vertical symmetry. An example of vertical symmetry is a Gothic cathedral.

If the plane of symmetry is horizontal, we may say that the object is horizontally symmetrical. A landscape on the shores of a lake with its reflexion in the water, is a system of horizontal symmetry.

Exactly here is a noticeable difference. The vertical symmetry of a Gothic cathedral strikes us at once, whereas we can travel up and down the whole length of the Rhine or the Hudson without becoming aware of the symmetry between objects and their reflexions in the water. Vertical symmetry pleases us, whilst horizontal symmetry is indifferent, and is noticed only by the experienced eye.

Whence arises this difference? I say from the fact that vertical symmetry produces a repetition of the same sensation, while horizontal symmetry does not. I shall now show that this is so.

Let us look at the following letters:

d b

q p

It is a fact known to all mothers and teachers, that children in their first attempts to read and write, constantly confound d and b, and q and p, but never d and q, or b and p. Now d and b and q and p are the two halves of a *vertically* symmetrical figure, while d and q, and b and p are two halves of a *horizontally* symmetrical figure. The first two are confounded; but confusion is only possible of things that excite in us the same or similar sensations.

Figures of two flower-girls are frequently seen on the decorations of gardens and of drawing-rooms, one of whom carries a flower-basket in her right hand and the other a flower-basket in her left. All know how apt we are, unless we are very careful, to confound these figures with one another.

While turning a thing round from right to left is scarcely noticed, the eye is not indifferent at all to the turning of a thing upside down. A human face which has been turned upside down is scarcely recognisable as a face, and makes an impression which is altogether strange. The reason of this is not to be sought in the unwontedness of the sight, for it is just as difficult to recognise an arabesque that has been inverted, where there can be no question of a habit. This curious fact is the foundation of the familiar jokes played with the portraits of unpopular personages, which are so drawn that in the upright position of the page an exact picture of the person is presented, but on being inverted some popular animal is shown.

* Kant, in his *Prolegomena zu jeder künftigen Metaphysik*, also refers to this fact, but for a different purpose.

It is a fact, then, that the two halves of a vertically symmetrical figure are easily confounded and that they therefore probably produce very nearly the same sensations. The question, accordingly, arises, *why* do the two halves of a vertically symmetrical figure produce the same or similar sensations? The answer is: Because our apparatus of vision, which consists of our eyes and of the accompanying muscular apparatus is itself vertically symmetrical.*

Whatever external resemblances one eye may have with another they are yet not alike. The right eye of a man cannot take the place of a left eye any more than a left ear or left hand can take the place of a right one. By artificial means, we can change the part which each of our eyes plays. (Wheatstone's pseudoscope.) But we then find ourselves in an entirely new and strange world. What is convex appears concave; what is concave, convex. What is distant appears near, and what is near appears far.

The left eye is the reflexion of the right. And the light-feeling retina of the left eye is a reflexion of the light-feeling retina of the right, in all its functions.

The lense of the eye, like a magic lantern, casts images of objects on the retina. And you may picture to yourself the light-feeling retina of the eye, with its countless nerves, as a hand with innumerable fingers, adapted to feeling light. The ends of the visual nerves, like our fingers, are endowed with varying degrees of sensitiveness. The two retinæ act like a right and a left hand; the sensation of touch and the sensation of light in the two instances are similar.

Examine the right-hand portion of this letter T: namely, Γ. Instead of the two retinæ on which this image falls, imagine, feeling the object, my two hands. The Γ, grasped with the right hand, gives a different sensation from that which it gives when grasped with the left. But if we turn our character about from right to left, thus: ꓶ, it will give the same sensation in the left hand that it gave before in the right. The sensation is repeated.

If we take a whole T, the right half will produce in the right hand the same sensation that the left half produces in the left, and *vice versa.*

The symmetrical figure gives the same sensation twice.

If we turn the T over thus: ⊢, or invert the half T thus: L, so long as we do not change the position of our hands we can make no use of the foregoing reasoning.

The retinæ, in fact, are exactly like our two hands. They, too, have their thumbs and index fingers, though they are thousands in number; and we may say the thumbs are on the side of the eye near the nose, and the remaining fingers on the side away from the nose.

* Compare Mach, *Fichte's Zeitschrift für Philosophie*, 1864, p. 1.

With this I hope to have made perfectly clear that the pleasing effect of symmetry is chiefly due to the repetition of sensations, and that the effect in question takes place in symmetrical figures, only where there is a repetition of sensation. The pleasing effect of regular figures, the preference which straight lines, especially vertical and horizontal straight lines, enjoy, is founded on a similar reason. A straight line, both in a horizontal and in a vertical position, can cast on the two retinæ the same image, which falls moreover on symmetrically corresponding spots. This also, it would appear, is the reason of our psychological preference of straight to curved lines, and not their property of being the shortest distance between two points. The straight line is felt, to put the matter briefly, as symmetrical to itself, which is the case also with the plane. Curved lines are felt as deviations from straight lines, that is, as deviations from symmetry.* The presence of a sense for symmetry in people possessing only one eye from birth, is indeed a riddle. Of course, the sense of symmetry, although primarily acquired by means of the eyes, cannot be wholly limited to the visual organs. It must also be deeply rooted in other parts of the organism by ages of practice and can thus not be eliminated forthwith by the loss of one eye. Also, when an eye is lost, the symmetrical muscular apparatus is left, as is also the symmetrical apparatus of innervation.

It appears, however, unquestionable that the phenomena mentioned have, in the main, their origin in the peculiar structure of our eyes. It will therefore be seen at once that our notions of what is beautiful and ugly would undergo a change if our eyes were different. Also, if this view is correct, the theory of the so-called eternally beautiful is somewhat mistaken. It can scarcely be doubted that our culture, or form of civilisation, which stamps upon the human body its unmistakable traces, should not also modify our conceptions of the beautiful. Was not formerly the development of all musical beauty restricted to the narrow limits of a five-toned scale?

The fact that a repetition of sensations is productive of pleasant effects is not restricted to the realm of the visible. To-day, both the musician and the physicist know that the harmonic or the melodic addition of one tone to another affects us agreeably only when the added tone reproduces a part of the sensation which the first one excited. When I add an octave to a fundamental tone, I hear in the octave a part of what was heard in the fundamental tone. (Helm-

* The fact that the first and second differential coefficients of a curve are directly seen, but the higher coefficients not, is very simply explained. The first gives the position of the tangent, the declination of the straight line from the position of symmetry, the second the declination of the curve from the straight line. It is, perhaps, not unprofitable to remark here that the ordinary method of testing rulers and plane surfaces (by reversed applications) ascertains the deviation of the object from symmetry to itself.

holtz.) But it is not my purpose to develop this idea fully here. We shall only ask to-day, whether there is anything similar to the symmetry of figures in the province of sounds.

Look at the reflexion of your piano in the mirror.

You will at once remark that you have never seen such a piano in the actual world, for it has its high keys to the left and its low ones to the right. Such pianos are not manufactured.

If you could sit down at such a piano and play in your usual manner, plainly every step which you imagined you were performing in the upward scale would be executed as a corresponding step in the downward scale. The effect would be not a little surprising.

For the practised musician who is always accustomed to hearing certain sounds produced when certain keys are struck, it is quite an anomalous spectacle to watch a player in the glass and to observe that he always does the opposite of what we hear.

But still more remarkable would be the effect of attempting to strike a harmony on such a piano. For a melody it is not indifferent whether we execute a step in an upward or a downward scale. But for a harmony, so great a difference is not produced by reversal. I always retain the same consonance whether I add to a fundamental note an upper or a lower third. Only the order of the intervals of the harmony is reversed. In point of fact, when we execute a movement in a major key on our reflected piano, we hear a sound in a minor key, and *vice versa*.

It now remains to execute the experiments indicated. Instead of playing upon the piano in the mirror, which is impossible, or of having a piano of this kind built, which would be somewhat expensive, we may perform our experiments in a simpler manner, as follows:

1) We play on our own piano in our usual manner, look into the mirror, and then repeat on our real piano what we see in the mirror. In this way we transform all steps upwards into corresponding steps downwards. We play a movement, and then another movement, which, with respect to the key-board, is symmetrical to the first.

2) We place a mirror beneath the music in which the notes are reflected as in a body of water, and play according to the notes in the mirror. In this way also, all steps upwards are changed into corresponding, equal steps downwards.

3) We turn the music upside down and read the notes from right to left and from below upwards. In doing this, we must regard all sharps as flats and all flats as sharps, because they correspond to half lines and spaces. Besides, in this use of the music we can only employ the bass clef, as only in this clef are the notes not changed by symmetrical reversal.

You can judge of the effect of these experiments from the examples which appear in the annexed musical cut. The movement which appears in the upper lines is symmetrically reversed in the lower.

The effect of the experiments may be briefly formulated. The melody is rendered unrecognisable. The harmony suffers a transposition from a major into a minor key and *vice versa*. The study of these pretty

1. 2. 3. 4. 5. 6. 7. 8.

Fig. 2.

effects, which have long been familiar to physicists and musicians, was revived some years ago by Von Oettingen.*

Now, although in all the preceding examples I have transposed steps upward into equal and similar steps downward, that is, as we may justly say, have played for every movement the movement which is symmetrical to it, yet the ear notices either little or nothing of symmetry. The transposition from a major to a minor key is the sole indication of symmetry remaining. The symmetry is there for the mind, but is wanting for

* A. von Oettingen, *Harmoniesystem in dualer Entwicklung*. Leipsic and Dorpat, 1866.

sensation. No symmetry exists for the ear, because a reversal of musical sounds conditions no repetition of sensations. If we had an ear for height and an ear for depth, just as we have an eye for the right and an eye for the left, we should also find that symmetrical sound-structures existed for our auditory organs. The contrast of major and minor for the ear corresponds to inversion for the eye, which is also only symmetry for the mind, but not for sensation.

By way of supplement to what I have said, I will add a brief remark for my mathematical readers.

Our musical notation is essentially a graphical representation of a piece of music in the form of curves, where the time is the abscissæ, and the logarithms of the number of vibrations the ordinates. The deviations of musical notation from this principle are only such as facilitate interpretation, or are due to historical accidents.

If, now, it be further observed that the sensation of pitch also is proportional to the logarithm of the number of vibrations, and that the intervals between the notes correspond to the differences of the logarithms of the numbers of vibrations, the justification will be found in these facts of calling the harmonies and melodies which appear in the mirror, symmetrical to the original ones.

* * *

I simply wish to bring home to your minds by these fragmentary remarks that the progress of the physical sciences has been of great help to those branches of psychology that have not scorned to consider the results of physical research. On the other hand, psychology is beginning to return, as it were, in a spirit of thankfulness, the powerful stimulus which it received from physics.

The theories of physics which reduce all phenomena to the motion and equilibrium of smallest particles, the so-called molecular theories, have been gravely threatened by the progress of the theory of the senses and of space, and we may say that their days are numbered.

I have shown elsewhere* that the musical scale is simply a species of space—a space, however, of only one dimension, and that, a one-sided one. If, now, a person who could only hear, should attempt to develop a conception of the world in this, his linear space, he would become involved in many difficulties, as his space would be incompetent to comprehend the many sides of the relations of reality. But is it any more justifiable for us, to attempt to force the whole world into the space of our eye, in aspects in which it is not accessible to the eye? Yet this is the dilemma of all molecular theories.

We possess, however, a sense, which, with respect to the scope of the relations which it can comprehend, is richer than any other. It is our reason. This stands above the senses. It alone is competent to found a permanent and sufficient view of the world. The mechanical conception of the world has performed wonders since Galileo's time. But it must now yield to a broader view of things. A further development of this idea is beyond the limits of my present purpose.

One more point and I have done. The advice of our philosopher to restrict ourselves to what is near at hand and useful in our researches, which finds a kind of exemplification in the present cry of inquirers for limitation and division of labor, must not be too slavishly followed. In the seclusion of our closets, we often rack our brains in vain to fulfil a work, the means of accomplishing which lies before our very doors. If the inquirer must be perforce a shoemaker, tapping constantly at his last, it may perhaps be permitted him to be a shoemaker of the type of Hans Sachs, who did not deem it beneath him to take a look now and then at his neighbor's doings and make his comments on the latter's work.

Let this be my apology, therefore, if I have forsaken for a moment to-day the last of my specialty.

* Compare Mach's *Zur Theorie des Gehörorgans*, Vienna Academy, 1863.

"THE GOSPEL OF JESUS CHRIST."*

BY JOHN SANDISON.

THE Jewish religion was a religion of hope in a future time, in which God was to glorify Himself in His people and redeem them from evil. This hope was the ground of the preaching of John the Baptist and what he begun was continued in another way and with another result by Jesus of Nazareth. He had been one of those who, moved by John's announcement to repent for the kingdom of God was at hand, had hurried to John to be prepared for the kingdom by baptism, and there was nothing that would justify us in holding the view that Jesus had from the beginning already connected another sense with these words than the sense in which they were understood by the people. Rather was it extremely probable that Jesus understood the conception of the kingdom of God exactly in the same sense as all others before Him—namely in the apocalyptic sense of redemption of the oppressed people and a revelation of all things on earth brought about by divine omnipotence.

Yet were the manner and appearance of Jesus entirely different from those of the Baptist from the beginning. His preaching became glad tidings for the consolation and the raising up of the souls that were bowed down. The ground of this difference lay in the religious personality of Jesus himself, in His spirit of child-like trust in God and inward love of God. God was not to him a far-off, unapproachable power and a

* Report of Professor Pfleiderer's "Gifford Lecture" No. 13.

stern judge, but a Father with whom He knew Himself to be connected in the most inward and confidential way; and with this view was connected His love of men, which led Him to communicate His belief and hope for them to share in. Between this inward love of God and the abiding love of men there was in Jesus no discordance, but entire oneness. God who lovingly revealed Himself in the world, guided man and educated him for the eternal life. The pious man did not serve God by turning away from the world, which was to be the sphere of the kingdom of God, nor could he be indifferent to men who were to be God's children. Thus inmost piety became not a motive for flying from the word, but heartfelt brotherly love, labor for the kingdom of God, and service for humanity.

In the view of Jesus the love of God was not a thing existing for itself. It had the root of its power and purity in religious faith. Nor was His brotherly love mere visionary optimism. He saw that men were evil, but with all this sober knowledge He had a faith in the capability of the saving and redeeming of those who were sunk and lost in the sin and pleasures of the world. This view was possible, because He recognised in man the germ of the child of God, that spiritual impulse which sprang from the Father of Spirits and strove back to Him, and yearned for life, and light, and freedom.

This message He wished to communicate to His unhappy brethren in order that they might be what they were capable of being—sons of the Heavenly Father. This task of Jesus had become a task quite other than it had been for the Baptist. However much He might think with the Baptist of the nearness of the kingdom of God it was not enough for Him to proclaim the summons to repent. His task was rather beginning the work of saving and educating love in the individual, and the carrying of it out in constant patience and gentleness. In this consisted what was specifically new in the work of Jesus, that He did not merely tell of the coming of the kingdom of God as a future event, but that He made its realisation a task for human endeavor, which might be designated as the work of the religious and moral education of man. Therefore, had He become the founder and head not merely of a new religion, but of a new religious world whose abiding task was to educate the natural man to be the child of God.

From our standpoint this work was the beginning of the actually existing kingdom of God and not merely of preparation for the future kingdom of God, but Christ's view of the kingdom of God was that of John the Baptist himself. "There be some here that shall not taste of death till they see the kingdom of God come with power." But while among the Jews the belief that God would come and take actively into His own hands the government of the world, took a political significance, with Jesus this view passed completely into the background the more His passionate soul was moved by the immediate distresses of the people and the more His attention was concentrated on the remedies for this distress, which had to begin in the individual. What we recognised as new in the work of Jesus was that He perceived His task began in saving work among the individuals. To Him the coming consisted in the overcoming of the universal dominion of Satan by the coming of the kingdom of God. He did not seek it in a national catastrophe, but in the experience of individual souls. What was more natural than that, in the daily multiplied results of His work, he should perceive the beginning of the realisation of God's universal dominion in the world?

The idea of the development of the kingdom of God was set forth again and again in the parables and stood in contradiction to the apocalyptic idea of catastrophe; but it was a fact of history that the old ideas were not set aside by the new at once, but continued to exist alongside of the new ideas, while they gradually lost their significance, and so the idea of the kingdom of God, begun in the individual, did not do away at once with the apocalyptic idea, and while the view of the future lost its apocalyptic eudæmonistic aspect, that of the religious and moral conquest of the world became prominent. As the preaching of the Baptist had awakened in Jesus the consciousness of His life task, so now He also again in His preaching made the nearness of the kingdom of God the motive of His moral demands, which were all summed up in one sentence—"Seek ye first the kingdom of God and His righteousness." This righteousness consisted in doing the will of God, and in His demand He opposed moral conduct to the ceremonial observances of the Pharisees. Jesus in this demand did not destroy the law, but fulfilled it by carrying it back to the absolute ideal of God-like perfection. To become like God was to fulfil our most proper designation—to be that which we were already in the groundwork of our being as children of God.

With this view there was given an entirely new estimation of ritualistic action. It was no longer a service by which man could purchase merit with God, but it was the satisfaction of man's need to give expression to his pious sentiments. The external performances of asceticism alone were worthless hypocrisy. The consecration of one's self and means was true service to God. In the view of Jesus the denial of the world and self was not to lose the world, but was merely a means of gaining oneself and a better world. The ascetic demand in Jesus did not rest on a radical dualism between the finite and the infinite. From the error of abstract pantheistic mysticism Jesus

had been kept by His faith in the loving Father whose nature it was to communicate Himself to His children, and therefore to preserve and not annihilate their lives. What was to be denied was the false view of life that was at enmity with God. This dying and living again was the deep core in the ethics of Jesus beyond which neither science nor culture would ever pass.

CURRENT TOPICS.

The defeat of the Government on Mr. Labouchere's motion to abolish the House of Lords is ominous of disaster to Lord Rosebery and his administration. It is a beginning full of evil auguries, and Lord Rosebery is justified in showing vexation and even wrath. If he should resign and let the cabinet break up he would not be without excuse. It is true, the decision was reversed the next day, but it was reversed by the consent of the opposition, who did not care to triumph on such a radical issue, and Mr. Labouchere himself declared that he did not intend by his motion to express a "want of confidence" in the prime minister. This was well enough, but still, no subsequent proceedings could reverse the fact that the Government had suffered a defeat. Lord Rosebery could not help feeling that he had been ill used, and that had Mr. Gladstone been in office, or had he himself been in the House of Commons, the disaster would never have occurred. Of course it is a consolation that when the troops got ready they regained the field of battle, that such a vote was not expected, that the captains were at dinner, that the whips were asleep on post, and all the rest of it, but the disagreeable fact remains that Mr. Labouchere was not asleep, and that he outnumbered his enemy at the point of attack, which is good strategy in war. Mr. Labouchere has been consistent all the time. At the very beginning he protested as a member of the Liberal party that a peer ought not to be prime minister, and he has convinced Lord Rosebery that many members of Parliament, including, perhaps, a few cabinet ministers, are of opinion that the prime minister ought to be, and must be, a member of the House of Commons, where he can be got at.

* * *

Speaking last week of senatorial stock-jobbing, I said that unless the accused Senators, or some not accused, should ask for a committee of investigation, suspicion would settle down upon the whole body of the Senate. Jealous of his own personal honor, and in deference to public sentiment, Mr. Peffer, a Senator from Kansas, moved for the appointment of a committee to investigate the charges made by the newspapers. His resolution was defiantly laid upon the table, and the proposed investigation smothered by a vote of 33 to 27. Questions of this kind, involving personal character and official opportunities, reveal the close affinity existing between "the two great parties" in the Senate. In the majority were twenty Democrats and thirteen Republicans; in the minority were eleven Democrats and thirteen Republicans, white thirteen Democrats and twelve Republicans abstained from voting, or, in the rude language of the reporter, "dodged the vote." The Populist party voted unanimously for the investigation, but, unfortunately, only three of the Populist men said "Here!" to the muster-roll. However, like the widow mentioned in the Bible, they gave all they had, three mites, and they shall have more credit than the Democrats who gave eleven, or the Republicans who gave thirteen. It is not surprising that the investigation was refused, because an investigation, when it explodes, is apt to scatter like a dynamite bomb and hit somebody far beyond its probable range. A piece of it may shatter a secret panel and reveal some collateral corruption that was never dreamed of by the mover of the resolution, nor suspected by the people. The Crédit Mobilier investigation was an awful warning; and some of the Senators remember that.

The political enterprise known as the "Christian Citizenship" movement is in a state of activity still, but up to the hour of going to press the results of it are not encouraging. A Sunday or two ago, the Rev. Dr. Gifford, of the Immanuel Baptist Church, in an eloquent sermon on the administration of Joseph in Egypt, exhorted Christian citizens to turn out and vote for men like Joseph, and he called upon them to rally, not only at the polls, but also at the primaries. "Go to the primaries," he said, "and see that good men are nominated. When a prayer-meeting and a primary come the same night, go to the primary." The advice appears to have had some effect, if we may judge by the Democratic primaries held yesterday, March 13, in the Twenty-fourth Ward, the account of which I find in the *Chicago Record*, a paper entirely non-partisan and independent. According to that, the two rival candidates for alderman were Fred Griesheimer and Watson Ruddy, and, as is usual in these cases, they and their several factions "were at swords' points all day." The convention was appointed for the North Side Turner Hall, but when the Democrats arrived there, they found the hall in possession of the Republicans, and in order to prevent a riot fifteen policemen were sent over from the neighboring station, whereupon the Democrats adjourned their convention to Brand's Hall, at the corner of Clark and Erie Streets; but, unfortunately, they had to pass through a saloon to get there, a feat never accomplished by a Democratic convention. The aroma of whiskey, beer, and tobacco was too delicious; and so, as the *Record* informs us, "the crowd stopped in the saloon below and soon became boisterous"; then they proceeded to nominate an alderman like Joseph, after a fashion probably not known to the uncivilised people in the land of Egypt.

* * *

The moral influence of the Christian Citizenship Reform will appear from the account of the proceedings had at the convention in Brand's Hall and the beer-saloon below The delegates having reached the saloon, "trouble began to show itself," and, as the *Record* goes on to say, "while the two parties were talking, 'Broad' McAbee and W. W. Wells jumped up on beer-tables and called for order." Instead of order they got chaos, which was probably what they wanted, for Wells nominated McAbee for chairman. At this there were "howls of disapproval from the Griesheimerites, but McAbee kept his position upon the beer-table. Cries for 'Murphy' brought out Frank Murphy, who called the delegates to come forward, and then 'Broad' McAbee made another speech." The police had hard work to keep the peace, but all the better for that, amid "howls of delight from the Ruddy faction and groans from the Griesheimer men," a man named Cassidy moved that Ruddy be the nominee. This was declared carried by the man on the beer-table, and then Ruddy was "lifted" to a table and made a short speech. Meanwhile Griesheimer's men had gone up-stairs and begun a contradictory convention of their own. At the six polling places the *Record* says the contest all the afternoon was "hot," and hottest at the polling place 165 North Clark Street. There, just before the polls closed, a crowd collected in the alley and broke into the polling-place. A number of ballots were taken out of the box by some person and scattered all along the alley. The judges secured "what was left," and, after looking over the situation,—not the ballots, but the "situation,"—declared the Griesheimer delegates elected. This interesting report concludes by saying: "The fight will probably be fought out this afternoon in the Democratic headquarters." And the puzzle of it all is that the members of both factions were Christian citizens.

* * *

Five hundred years ago, Wat Tyler's hungry army marched on London, captured it, and very nearly made a revolution; the reincarnation of it now threatens to march on Washington. The American Wat Tyler is a man of substance by the name of Coxey, and he proposes to review the nucleus of his army, two or three

thousand men, on Easter Sunday at Masillon, Ohio, and begin his march from there, preceded by a brass band in the legitimate circus way. At Pittsburg he is to be reinforced by a corps numbering twenty thousand men, and marching through Pennsylvania, picking up recruits along the road as Tyler marched through Kent, General Coxey expects to have an army of a hundred thousand men by the time he reaches Washington, which curiously enough is the number Wat Tyler had behind him when he stood upon Blackheath and gazed upon the great city three or four miles away. Wat Tyler's insurrection was a tragedy for him and for his army, but it was a step forward in that invincible rebellion against wrong that in some form or other will never cease until justice is done. Happily, we can look upon Coxey's imitation of Tyler, and anticipate nothing more serious than comedy. One of the easiest achievements for any man in this country is to "raise a ridgment." I have tried it, and I know. We are a marching people, and we like to be in the procession. Ask a man to walk a half a mile and he will respond like a log of wood, but invite him to "march" twenty miles or five hundred, and he is ready in an instant for the trip I remember a thousand of my neighbors who would not walk with me ten rods, but when I invited them to "march" they eagerly "fell in," and tramped with me all over the Southern States. So it will be with Mr. Coxey; he will find a large number of recruits who would not walk the length of a street for wages, who will "march" with him any distance, and as to the trifling matter of subsistence, they will cheerfully put up with whatever the market affords. They will forage on the country, and there's where the trouble will begin, for the country will very likely refuse to be foraged upon, and the army will dissolve before it reaches Pittsburg.

* * *

In spite of all the precautions taken by the authorities to arrest him and prevent his landing, I have to record the humiliating fact that "one Charles Templeton," a determined and dangerous foreigner, eluding the vigilance of the officers and the detectives, defiantly walked into the overcrowded United States of America last Thursday night from the steamer Majestic, and he is now actually at large. It is charged against this man Templeton that he has come to this country with the desperate intention to earn an honest living as assistant secretary of the Young Men's Christian Association, and that he had already secured the situation before he left his native country to invade this land. This is the crime for which Mr. Templeton has been advertised as a fugitive malefactor in the following proclamation issued by an American potentate named Stump, a dignitary holding the imperialistic office of Superintendent of Immigration: "To Inspectors and Interpreters:—You will keep a careful lookout for one Charles Templeton of Liverpool, England, who is reported as coming to this country under contract, having been engaged as assistant secretary to the Young Men's Christian Association. Detain him, if found, and report to me immediately." To "detain" a passenger is to imprison him, and the reasons given by Mr. Stump in his order to "detain" Mr. Templeton are insufficient, and contrary to all enlightened law. The American Government would not for a moment allow them to be good enough to "detain" an American citizen at Liverpool, or Bremen, or St. Petersburg. Mr. Templeton came over in the second cabin of the Majestic and made no effort to conceal himself or his business; and the reason why he was not arrested I assume to be that the "Inspectors and Interpreters" thought they were called upon to perform an ignominious duty, and so, instead of searching the second cabin where Mr. Templeton was, they looked in the first cabin and in the steerage, and in every part of the ship where Mr. Templeton was not.

* * *

It seems that the true character and constitution of the American Senate will be made plain through the columns of *The Open Court*, and Mr. Conway's contribution in the last number is of great historic interest. He shows what I have always contended for, that the United States Senate is the toryism of George the Third's reign embalmed in the American Constitution. I presented a similar view of it in a contribution to the *Nineteenth Century*, London, August, 1885, and in that article I maintained that the Senate with its aristocratic prerogatives was a close imitation of the House of Lords as the House of Lords was at the time our Constitution was adopted. In that instrument an additional protection was given to the Senate through a provision borrowed from the Medes and Persians by which the "rotten borough" system was made perpetual and the Senate itself preserved from reformation except by the impossible consent of all the States expressed in a unanimous vote. I also showed that although the House of Lords had been compelled to surrender some of its prerogatives to the democratic spirit of the time, the Senate had relatively gone backward, for in a progressive age like this, to stand still is to go back. I repeat what I have said before, that there was a conservative party strong enough to enforce its will in the convention that framed the Constitution of the United States; this faction determined that in one branch of Congress the minority should rule, and its plan was carried out in the constitution of the Senate. If we put eccentrics in a machine we must not expect them to work in the way concentrics do; the Senate is what it was intended to be.

M. M. Trumbull.

NOTES.

Baron Tauchnitz, the distinguished Leipsic publisher, whose large book exhibit in the German House at Jackson Park will be remembered by many visitors to the World's Fair, has sent to the Cornell University, at Ithaca, N. Y., some of the more solid works of that collection. Among the authors represented are such scholars as Baer, Delitzsch, Fuerst, Tischendorf, Gebhardt, Stahl, Haase, Lipsius, Schanz, Berner, etc.; and among the works Davidson's edition of Fuerst's large "Hebrew and Chaldee Lexicon," Theile's "Biblia Hebraica," Salkowski's "Lehrbuch der Institutionen," and Friedberg's "Lehrbuch des Kirchenrechts." Baron Tauchnitz has received a letter from Mr. George W. Harris, Librarian of Cornell University, thanking him warmly for his very generous gift.

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KOSSUTH.

BY M. M. TRUMBULL.

The going down of a great man into his grave resembles in solemnity the sinking of a ship; and Louis Kossuth was a great man, cast in the old heroic mould. His mental and spiritual constitution was of the classic order like that of the ideal Greeks, and his eloquence was classic; stately and splendid as the oratory of the ancients who gave him inspiration. He dies in exile at the age of ninety-two, and his work is almost forgotten, for it was done forty-five years ago, but he moved the world forward a little; it may have been but a few paces, but he moved it forward; and the nations are nearer to liberty because of him.

In Louis Kossuth nature had harmoniously blended many of the qualities that make excellence in man, and he was endowed with a capacity large enough to hold all the learning possible to be acquired from books or by experience. As a scholar, orator, statesman, journalist, popular leader, and parliamentary leader, Kossuth is entitled to high rank, while as Governor, and Dictator of Hungary he showed creative and administrative ability enough to conjure armies out of heterogeneous and untrained materials, to get revenues for an empty treasury, to reanimate the people of Hungary, and to organise an armed resistance to the imperial power of Austria; a resistance that was overcome at last, only by the desertion of General Gorgey and the intervention of Russia with an army. Then, defeated and betrayed, Kossuth sought refuge upon Turkish ground.

As soon as the Hungarian refugees had found shelter on Turkish territory, the Austrian Government demanded that Kossuth and his companions be given up as fugitive criminals who had offended against the laws of Austria, but the Sultan replied that hospitality to strangers was part of the Mohammedan religion, and that it would be contrary to the law and practice of Islam to surrender a guest unto his enemies. The demand for the extradition of Kossuth must therefore be refused. Russia supported the demand of Austria, but the United States and Great Britain endorsed the answer of the Sultan, and Kossuth was therefore safe. In a few months an American ship sent over by Congress for that purpose gave him shelter under the American flag, and carried him to England.

Kossuth aroused in England sympathetic enthusiasm as much by his oratory as because of his misfortunes and his cause. His command of the English language was equal to that of the great orators, and some of his speeches are among the English classics now. The marvellous part of his accomplishment was that he had acquired it in prison, with no teachers whatever except a dictionary, a grammar, and a copy of Shakespeare's plays. Faithful he must have been to his chief master, for some of his addresses march along in dignity and grace like the declamations that we find in Shakespeare. In the United States his brilliant gift brought him disappointment and sorrow, for it caused the promised national welcome to be withdrawn.

In his address to the people of the United States, dated at Broussa, Asia Minor, March 27, 1850, Kossuth among many other things declared it to have been among his revolutionary purposes:

> "That every inhabitant of Hungary without regarding language or religion should be free and equal before the law—all classes having the same privileges and protection from the law."

That was the key-note of Kossuth's orations in England and in the United States; liberty, the right of all men to be equal before the law, and this it was that gave offence to the dominant caste in America, for at the time when Kossuth visited this country, slavery was our master here, while the "two great parties" of that era cringed and wriggled in servile obedience to it; and that is the reason why Kossuth's welcome was withdrawn.

In the crisis of his career, and when he was a fugitive in Turkey the sympathy of the American people was heartily with Kossuth, and that sympathy was never taken from him although he may have thought it was, and very likely died in that belief. At that time the interest of the American people in Kossuth and his fortunes was manifested in the most generous and enthusiastic way, and animated by it Congress invited him to be the nation's guest, an invitation which he accepted with extreme gratitude and pleasure, but when he came to New York he found, not that the people had grown cold, but that the politicians had

become alarmed, for slavery had given orders that the man who talked of liberty should not be the nation's guest; and slavery had its way.

The reception given to Kossuth by the citizens of New York was magnificent, but he felt sorely grieved because Congress had refused him a welcome as the nation's guest after having formally given him a national invitation; and speaking to a delegation from Philadelphia, he said:

"I must confess that I have received here in New York such a manifestation of the sympathy of the people as gives me hope and consolation; still I regard myself invited to this country by an act of Congress initiated in the Senate. Now, had I known that, in the same place where I was invited, the same body would now decline to give me welcome, I would not have thought that I was a welcome guest; so much the more as the President of the United States has formally invited the Congress in his message to consider what steps are to be taken to receive the man for whom he sent a frigate to Asia, complying with the will of the same body in which the resolution to give me welcome was withdrawn, on account of an expected opposition."

Kossuth was presented to the Senate in a private capacity as a distinguished foreigner, or something of the kind, but on condition that he would not say anything when introduced and invited to take a seat, and a similar performance took place in the House of Representatives. Something of an apology was offered in the shape of a big banquet given to the exile and presided over by the President of the Senate, with Daniel Webster at the table, but the slight put upon Kossuth by Congress wounded him, and his aspiring soul bore the scar of the wound even to the end of his life; but slavery was inexorable in those days, and slavery was king.

Kossuth lived long enough to see the great events in which he bore so conspicuous a part fade away almost into ancient history; crowded out of memory by more tremendous deeds, and among them the regeneration of Italy, the defeat of Austria by France, and afterwards by Prussia; and greatest of all, the abolition of slavery in America. If he had comfort in revenge these things may have given him consolation, for in his exile Austria was never generous to him, although in a critical hour he had been magnanimous to Austria, and to the imperial dynasty. Referring to the ingratitude of Austria, Kossuth speaks as follows in his letter to the people of the United States:

"Two years ago, by God's providence, I, who would be only a humble citizen, held in my hands the destiny of the reigning House of Austria.

"Had I been ambitious, or had I believed that the treacherous family were so basely wicked as they afterwards proved themselves to be, the tottering pillars of their throne would have fallen at my command, and buried the crowned traitors beneath their ruins, or would have scattered them like dust before the tempest, homeless exiles bearing nothing but the remembrance of their perfidy, that royalty which they ought to have lost through their own wickedness."

The patriotism of Kossuth overflowed the boundaries of Hungary, and covered all the world. His was not an insular or a provincial spirit. He wanted nothing for the men of Hungary that he was not willing all other men should have. He desired freedom, justice, and prosperity for his own country, but he was willing to share those blessings with all the other nations of the earth; and this is patriotism.

MIRACLE IN RELIGION.

BY CELIA PARKER WOOLLEY.

The intelligent mind is no longer concerned with questions of the validity or reasonableness of miracles, and the tone of discourse on the part of those professing belief therein grows daily more feeble and apologetic; but it is still worth while to examine this side of the religious life for the light it throws on the intellectual development of the race. We should try to study this subject in large and unbiassed fashion, not in a spirit of narrow criticism or vain self-glorification over the past, whose efforts at truth-seeking were as honest as our own. The grossest superstition, carefully examined, will be found to be the logical, perhaps the only possible outcome of the current knowledge and experience which gave it birth. In his beliefs about God and the universe, as in the tools he has fashioned in aid and support of his physical existence, man has done the best he could.

We must travel back of Christian tradition here, back of all written records to pre-historic times. Not theology but anthropology must be our guide. Most of the scientific writers on this subject declare that religion is born of fear; but this has never seemed to me more than a half statement of the truth. Religious belief undoubtedly has its origin largely or mainly in feelings of dread of the unknown and desire to propitiate the same; but along with this element of fear may be traced another as old and more vital. The sense of mystery at the bottom of the religious life is not expressed as dread alone, but also as admiration or adoration of the beautiful and good; this sense of beauty is awakened as soon as the sense of power, and the religion of love begins with that of fear, though held in abeyance to it.

It is this element of love that saves religion from sinking into complete superstition even in its lowest forms; it is the element of growth. The miraculous element in religion belongs to the fear side. Belief in miracle is the direct outgrowth of belief in a supreme and arbitrary power, responsible neither to himself nor anything outside himself. Under such a scheme man is but the victim and puppet of the Almighty, whose salvation is dependent on the whim or caprice of his Creator. Salvation itself is the prime miracle.

This miraculous element in religion dies hard even

in many liberal minds, who associate it with that wealth of traditionary fable and lore which belief has evolved in the past and which modern criticism threatens to destroy. As they are afraid that imagination will die out in literature if there are not ghosts and fairies, Cinderella's slippers, and Jack's beanstalk for it to twine upon, so they distrust that religious faith which does not include a little miracle. Or if they have rejected all superstitious belief for themselves, they still think a little superstition is good for the masses, to inspire respect for authority and keep them in order.

The miracles of the New Testament arose from the wonder-loving mind of man working backwards, trying not only to rescue an exalted name and tradition from oblivion, but to elevate it to a new godhead. The idea of incarnation had long before taken firm hold of the human mind, growing naturally out of belief in the multiple intermediary agencies between God and man, supplied in the various ancient mythologies; an idea which the larger part of Christendom finds it painful to dispense with to-day. Early Christian history, following the line of the New Testament narrative, shows two sets of miracles. Later historians do not pretend to defend the post-apostolic miracles, but some of them employ very curious reasoning on this subject. Philip Schaff tells us that miracles ceased with the apostolic age because the Church was then established and no longer needed the support of such testimony. The subject, he adds, is surrounded with difficulties, "in the absence of inspired testimony or of ordinary immediate witnesses"; but he does not explain where he finds the immediate witnesses for the healing of the blind Bartimæus or the raising of Lazarus from the dead. He asks no further proof of Paul's conversion, and the heavenly vision and warning that led to it, than the record supplies, but finds four reasons why we should reject the story of similar import in the history of Constantine. Here the occurrence may have been "an actual miracle," a "pious fraud," a "psychological illusion," or an "event explainable upon some natural phenomenon." But the latter-day student will find as many hypotheses on which to account for the Gospel miracles. Another division in the Christian miracles is that which separates those in the accepted canon from the rejected Apocrypha. For a long time Biblical criticism and revision consisted of this winnowing process, separating the supposed wheat from the chaff. But, again, the student of a later day is at a loss to understand what just principle of selection operated in tasks of this kind. We shall have no more attempts at revision on this line, for we have reached a more rational view of the entire subject and are no longer concerned to distinguish between the so-called divine and human attributes of a book we now know we honor most to accept in its human character alone. We are learning how much more valuable the Bible is, looked upon as history, literature, life, rather than as miracle and dogma.

The subject of miracles has a literature of its own. The first most notable essay of modern times was Hume's, who undertook to show the manifest improbability of miracles, a method which Professor Huxley, in his "Life of Hume," shows to be a mistaken one, employing much the same argument that Lecky does in his chapter on Witchcraft. "Scientific good faith" prevents us from believing in the probability of these marvellous occurrences, but can do no more. Another important piece of writing on this subject in its day was Gibbon's famous fifteenth chapter in the "Decline and Fall of Rome." Prof. J. H. Allen has summed up the merit and usefulness of Gibbon's method of reasoning, who, after praising his general work in high terms, adds that it is nevertheless in some ways "a masterly and very perfect model of what our study of history ought not to be." He is without "historic sympathy." He tells the undoubted truth about the mixture of pagan idolatry with the new faith, speaking in a tone of harsh and sneering scepticism that could not but arouse the fear and indignation of the religious world of his day, but which is cheap and shallow wisdom for the present age.

Protestantism, with its appeal to individual judgment and its condemnation of religious tyranny and fraud, did much to abolish grosser forms of superstition, but there was never a more pronounced supernaturalist than Luther, who burnt witches and threw his inkstand at the Devil. Protestantism, gave every man a copy of the Bible, with implied permission to judge its contents for himself. The human mind was free at last and would work its way; but belief in a dual order of things, in God *and* Satan still stood in the way of rapid progress. Not until our own era was the doctrine of miracles disputed on moral and scientific grounds. The last contribution to this discussion is found in the life and work of Theodore Parker. The distinction which he insisted upon between the "transient and permanent in Christianity" marked the next step in the evolution of the religion of reason and character. As the ripest scholar of his day Theodore Parker knew what he was talking about when he pointed out the spurious nature of the supernatural claims of the Bible, while as a man of the largest and most humane instincts he felt the affront put upon God and his own manhood in a religion founded on miracle. Thanks to his strong outspoken words, more than to any other single source perhaps, but more to the spread of general knowledge, belief in miracles is no longer made the test of religious character. "A weak and adulterous nation asketh after a sign," but our age is one

which will be remembered as that in which man began to forego his trust in signs for greater trust in himself. Faith grows more open-eyed every day.

But while the age of miracle and the need of miracle are passing away, there remains a wide range of phenomena in our own day which seems of analogous nature. The peculiar phenomena that accompanies certain modern beliefs and theories, spiritualism, Christian science, theosophy, hypnotism, etc., are of that exceptional order which demands special explanation. The majority of us have but second-hand testimony of these things, as the believers in miracles have. All that we have yet learned of these peculiar experiences is that they are peculiar, i. e., outside the ordinary rule and understanding. It is due, however, to those professing these new forms of faith to bear in mind that they themselves set up no claim to supernaturalism. It is higher, less familiar law that governs here, we are told, but law still. The spiritual nature of man, and that other pressing question, of man's existence after death, are, according to these new beliefs, no longer matters of mere hope and trust, but have become subjects of demonstrable knowledge. In so far as modern spiritualism and its allied faiths are aiming to establish the spiritual existence of man upon a scientific basis, we should honor them and hold our minds open to receive all the light and information they have to offer. All of these theories are tentative, but suggestive, being signs of the world's advancing progress on the psychical side. More and more we are living in the world of thought, of moral ideas, of spiritual striving and reward. We may live in this upper world of mind and spirit in ways that uplift all that lies below on the plane of man's practical activity or in ways that neglect and dishonor these practical needs. Unless, like the monk in the Legend Beautiful, we have strength to tear ourselves away from the vision to carry on the work of our daily lives, it will desert us. It is the choicest souls that willingly accept their share in the drudgery of life, and for whom the vision waits. It will not desert them until they have deserted something better than it.

It is this thought of the moral import of belief in miracle that should weigh most seriously with us. There is a weakened will and moral inertia that grow directly out of the love of the marvellous. Add to this that thought of a misdirected and irresponsible power which goes along with belief in miracle. This irresponsible power can no more justly be attached to our conceptions of divinity than to a human ruler. God and man are both best honored in the faith of reason and law. The miraculous is fading out of religion and of life. There is a wider basis for faith in the reign of cause and effect than in all the miracles that were ever recorded. Man is born for the light, he is saved through knowledge, not through grace; he must earn whatever good he is to obtain, here or hereafter, not purchase it with money or the sacrifice of the innocent. His own experience will prove his best guide and inspiration.

DEATH SHALL NOT PART YE MORE.

BY VOLTAIRINE DE CLEYRE.

"He that loseth his life shall find it."

DISCIPLE.

Master, my friend is dead. Around the world
  I seek, and find no other heart like his;
And all my life-dreams are as dead leaves whirled,
  And all my life-work as the bare sand is.
I would go down into the grave, and kiss
  The dust of him who held me in his heart
Living, and dead has left me passionless,
  Bloodless, from wounds that still have power to smart,
But which no hand heals, since Death tore apart
  His life and mine. Master, I fain would rest!
I am unloved, un-understood! All scarred
  With bitter stripes of Hate! The Grave is best,—
    The Grave, and the dark mould upon his breast.

MASTER.

Thou seek'st thy friend? Unhappy, thou hast sought
  With eyes turned inward! And thy search is vain,—
Vain all the purchase that thy tears have bought,—
  Thy tears, and all the weary winds of pain
That blow upon thy mouth the bitter rain,
  And cast upon thine eyes the stinging sleet;
Aye, vain thy purchase, and all dross thy gain!
  Yet I command thee, turn once more thy feet
Into the ways; and seek once more to meet
  The undying Heart of Love, that understands,
And soothes, and turns the bitter into sweet,
  And fashions life to kindness with kind hands.
Only this key I give: wouldst find thy friend,
  Seek not in Man to *be* known, but to know;
Not to be pitied, but to pity; blend
  Self in All-Self,—and *thou shalt find him. Go!*
    Yet, take these flowers; from thy friend's grave they blow.

. . . .

DISCIPLE.

Master, I bring from many wanderings,
  The gathered garner of my years to thee;
One precious fruit of many rain-blown springs
  And sun-shod summers, ripened over-sea.
Years, years ago Thou gav'st the seed to me,
  Wrapped in the bloom of Roses of the Dead;
Behold the shining Heart of Love! and be
  Assured the grave-bloom was not vainly shed,
And partly are thy sweet words merited.
  Yea, I went hence with wonder in my soul,
With bitter wonder that thy great lips said
  My pain was worthless, and my longed-for goal
Was but blind seeking of myself, that stole
  The face of Love and wore it as a mask!
Yet knew I TRUTH. I folded up the scroll,
  The useless record of the useless task,
And set my Heart before my Soul to ask:
  "What was thy friend?"—And slow the answer came:
"Love that thought not of self; Pity so vast
  It felt all tears, nor measured It, by name,

Those whom it pitied,—felt not any blame
Toward those who injured It; Peace, so profound
That no shock might uncentre, and no shame
Shake from Its sympathy,—no unsightly wound
However cankered, no discordant sound
However rasping, turn aside its face,
This was thy friend. Thou, Self-torn, hast not found,
Because thou hast not sought! The phantom chase
Of Self has driven thee from place to place,
'With eyes turned inward'—so the Master spoke,—
An idle, weary, marsh-set, rock-wrecked race,
A goalless way, with epitaphs of hope.
Turn now and seek *thy friend*; long mayst thou grope,
But light will break."—Master, the dawn is broke.

MASTER.

Now hast thou found thy friend!—Depart in peace,
Thy prayer is heard; thou shalt go down and rest:
Death shall not part ye more, nor shall ye cease
To dwell together in the world ye blessed,
So—sleep! with these dry flowers upon your breast.

ALDERMAN COBDEN OF MANCHESTER.

BY THEODORE STANTON.

I HAVE just had a glance at two belated gifts to Cornell University and Williams College presented *à propos* of the recent celebration at those two institutions. I refer to copies of a curious work entitled "Alderman Cobden of Manchester," by Sir E. W. Watkin, Bart., M. P., the English railway magnate and indefatigable promoter of the Channel tunnel, who, like his father,[1] was a warm friend and ardent supporter—"old followers," Sir Edward expresses it—of Cobden throughout the corn-law struggle and his subsequent labors, though Sir Edward was then quite a young man. The inscription on the fly-leaves of the two volumes—*édition de luxe*, with heavy paper, broad margins, each volume numbered, and only four hundred copies in all—read as follows: "To Cornell University on the celebration of the 25th anniversary of its prosperous existence"; and "To Williams College on the celebration of its first centennial, as a token of respect for Professor Perry and his good works."

The gift to Williams College is particularly appropriate, for it is one of the three or four institutions to the students of which the Cobden Club awards an annual medal for work in political economy; and the reference to the venerable Professor Perry, who has done so much to advance the cause of free trade in University life, is most appropriate.

The *raison d'être* of this volume, the prefatory notice informs us, was the publication of a series of Cobden's letters addressed to the author and his father, which were not used by John Morley in his biography of Cobden and which are here published for the first time. "I may add," continues Sir Edward, "that an additional object has been to endeavor to place before Manchester the great services of Mr Cobden, well nigh forgotten, in the foundation of the Manchester Athenæum, and as the man above all men dead or living, to whom is due the credit of the establishment of popular local self-government in our city. . . . After long heroic labor for a couple of years in giving Manchester its local self-government, and in seeing it through the early trials of a new existence, it was to those higher and wider flights of politics with which he had begun, that Alderman Cobden immediately returned. . . . Mr. Cobden had been in the United States, and he had seen the big crop of 'Institutions' there. In Manchester he found nothing but the 'Mechanics' Institute'—nothing for the 'middling classes,' including our clerks and helpers in warehouses and stores." Mr. Morley devotes only a few paragraphs to Cobden as a local reformer, so that Sir Edward's work fills a lacune in Cobden biographies.

Of course the most interesting part of this book to the general reader, especially if he be not an Englishman, is the series of Cobden letters, which, though many of them are of slight importance, afford many delightful and characteristic glimpses of Richard Cobden.

Cobden's breadth of religious view is seen in this *post scriptum* to a letter addressed by him to the author's father and written —the date should be noted—in 1838. It ran as follows: "I heard a hint that you were going to oppose the opening of the Zoölogical Gardens on Sundays. Before you bring your judgment to a verdict upon this subject (one of the most important that can be discussed) I should like to give you a few facts connected with the observance of Sunday abroad. I don't mean to refer to Catholic States, but to Prussia, Saxony, Switzerland, etc. May we not be possibly wrong and they right? At least let us judge of the fruits."

Cobden was not only radical in his religion but in his politics, too. Perhaps he might be called the Jefferson of England. However that may be, these letters show him to have taken a very advanced, democratic stand. As far back as 1841 he came out squarely for universal suffrage, as is shown by this extract from a letter written in that year to the author: "I have sometimes thought it would be a good step to start another universal suffrage newspaper, either in London or Manchester, advocating democratic principles. . . . I am in general very mistrustful of newspaper undertakings, and would not like to advise any such step; therefore take my suggestion merely for consideration. . . . You alluded to me in a former letter as a leader of the masses, but I know my own qualifications, and they are not such as are required. I have not the physical force and the tone of my mind is opposed to such an undertaking, I know exactly my own field of usefulness—it lies in the advocacy of practical questions, apart from mere questions of theoretical reforms. My exertions are calculated to bring out the middle classes, and that will lead the way for a junction with the masses, if they can be brought to act under a rational and honest leader."

In another letter, written in the same year, occurs this passage:

"If we ask the legislator (who admits the right of the people to the franchise, but denies it on the ground of expediency until the people be educated) *when* he will undertake that the people shall be educated, he tells you he does not know. And if you ask a chartist *when* he will obtain the suffrage, he does not know. So that the expediency of the one and the other amounts to an indefinite withholding of justice—an admirable plea for despots and knaves, but one which honest politicians will never, unless they be fools, listen to for a moment. Would not the substance of this letter make a good short letter for Condy's paper [the Manchester *Advertiser*] on Saturday? If you think so, pray write it and send it."

In 1862 he wrote: "How and when the electoral system in this country is to be altered, so as to give to the masses at least a chance of doing something better for themselves, is a question which I cannot pretend to answer."

Household suffrage in boroughs was established five years later; ballot ten years later; household suffrage in counties not till twenty-two years later, and a farther extension among agriculturists is believed to be near at hand.

The following, though written in 1848, is timely to-day:

"I am not surprised to see that even your father has caught

[1] "My father was associated with the League from its birth to its triumph, and spoke, wrote, and worked admirably in the cause. He was, however, a man who, prompted by his convictions, did his work and never cared for credit or applause. His work was his reward." Absalom Watkin was born in 1787 and died in 1861. This volume contains a photograph of William Bradley's painting of him, and represents a man with a fine, intelligent, gentle face and a head very high above the eyes.

the contagion of the day, and is for having a special fight with the malcontent Irish. Never were my peace-doctrines so much at a discount as at the present moment in England. Wait till we count the cost of all this marching, arming, and drilling, and then John Bull will be more open to pacific overtures. Depend on it, there are faults on both sides when a government and its population are so often brought into attitudes of defiance. To have to resort habitually to physical force to sustain political institutions will, in the end, place them in the wrong in the eyes of the whole civilised world, and then, when their moral support is gone, they will fall some fine morning about our ears, as they have done in so many other countries; that is to say, unless we contrive in the meantime by moral means to bring the vast majority of the population on the side of the said institutions."

We get glimpses and explanations of Cobden's "eloquence unadorned" in the volume. "You know," he said, at the end of one of his speeches, "I never perorate." "Disregard of mere form was characteristic of him," says Sir Edward. "No one could speak with less of gesture in his more animated moods; yet his manner and movements had none of the restraint or deliberation that belong, by nature or art, to men of different build or temper. Long after the League had triumphed, and his widest fame been won, Cobden, at forty-five to fifty, was still to be seen half skipping along a pavement, or a railway platform, with the lightness of a slim and almost dapper figure, and a mind full bent on its object. . . . Cobden was a speaker never unmindful of the circumstances in which he spoke, or the kind of audience he had before him. . . . He was always careful to speak down to the ears of an audience, not to soar in the space overhead," a very important thing in the public meeting-room of the Manchester Town Hall of those days where "the voices of most speakers got lost in the glazed dome of the roof."

The first time Cobden addressed a large assembly was October 28, 1835, in Manchester in connexion with the foundation of the Athenæum. "He was the 'new light,'" says Sir Edward; "he was to most people then an unknown man. He spoke rapidly, but epigrammatically, and 'took' with the audience all through. His was the speech of the evening."

Nearly ten years later, referring to this meeting, he said that when he rose to speak he could see no one; that he felt he was speaking his prepared speech very rapidly; that as he proceeded, and the audience cheered him, first one head and then another popped up into sight, till finally what was at first an aggregated and indivisible mass, appeared in individual and distinct shape before him. Though in later years, practised as a speaker before all sorts of audiences, and under all sorts of conditions, he usually felt, as Wendell Philipps was accustomed to say he also felt, some nervousness at starting. In a speech in 1846 Cobden said on this point: "Many people will think that we have our reward in the applause and éclat of public meetings, but I declare that it is not so with me, for the inherent reluctance I have to address public meetings is so great that I do not even get up to present a petition to the House of Commons without reluctance."

Cobden, it will be remembered, visited the United States two or three times. So it is natural to find references to us in these letters. The earliest one is in a letter dated January, 1852, mentioning Sir Edward's recent sojourn in America and requesting a copy of the book giving an account of his travels. Cobden then goes on to say: "I feel very anxious to know what you think of the United States. I have long had my notions about what was coming from the West, and recorded my prophecy on my return from America in 1835. People in England are determined to shut their eyes as long as they can, but they will be startled out of their wilful blindness some day by some gigantic facts proving the undisputable superiority of that country in all that constitutes the power, wealth, and real greatness of a people."

After reading Sir Edward's volume, Cobden says in another letter:

"You could not have done a wiser and more patriotic service than to make the people of this country better acquainted with what is going on in the United States. It is from that quarter, and not from barbarian Russia, or fickle France, that we have to expect a formidable rivalry, and yet that country is less studied and understood in England than is the history of ancient Egypt or Greece. I should like to go once more to America, if only to see Niagara again. But I am a bad sailor, and should dread the turmoil of public meetings when I arrived there."

A few days later he writes again:

"You talk of my going to America, and then coming back to tell the people here what is going on beyond the Atlantic. I have never missed an opportunity of trying to awaken the emulation and even the fears of my countrymen, by quoting the example of the United States. But the only result is that I am pretty freely charged with seeking to establish a republican government here. To shut our eyes to what is going on there is almost as sage a proceeding as that of the ostrich when he puts his head under a sand heap. However, whether we will or no, we shall hear of the doings of the Americans."

The following extract was written on December 10, 1862, in the period of the cotton famine in England in consequence of our civil war, which is referred to in these words:

"I am very glad to see some public meetings being held in London to show to the world that the *Times* and other aristocratic and club organs do not, in their sympathy for the slave-owners, represent the feelings of the English people. I look on such demonstrations as very desirable in order to counteract the efforts of those who will try to induce Parliament to offer some opinion in favor of recognition or mediation. I think it very desirable that more should be done to elicit the sympathies of the masses for the North. It will be necessary to have some such counterpoise to the pressure which the blockade will put on public opinion in a direction hostile to the Federal Government. It is also probable that there may be some isolated acts of violence by slaves on their owners in the spring after the proclamation of freedom comes into force, though I hope such will be rare. They will be laid hold of to excite the indignation of the country. This will at least make it desirable that the true state of slavery in the South should be kept as much as possible before the public eye. If the American civil war goes on for a year or two the consequence to Lancashire, and indirectly to all this kingdom, will be more serious than is dreamt of by people generally."

Another interesting feature of the book are its illustrations. It contains several portraits of Cobden. There is a photograph and a crayon likeness made by Lowes Dickinson representing Cobden at the age of fifty-seven. He has a gentle, benevolent looking face. There is also a photograph of him at twenty, taken from a miniature likeness. Another represents him sitting on the sward, among the croquet wickets, before Dunford House, the place of his birth and residence, when he had rebuilt it. Then there is a reproduction of the historic painting of J. R. Herbert, R. A., representing Cobden addressing the Corn League Council. It includes portraits of John Bright, Lord Kinnaird, P. A. Taylor, Sir Thomas Potter, etc. There are portraits of Cobden's father and mother, taken just before their marriage, both having strikingly refined faces, that of the father being handsome even. Cobden's only son, who died when a boy, is seen in two portraits taken at the age of five and fifteen. There is a strong family likeness running through all three pictures. A photograph is also given of Cobden's big plain house in Quay street, in Manchester, where, afterwards Owens College first met and which is now the County Court House. Fac-similes of letters of Cobden, Carlyle, Dickens, Disraeli, etc., and a pretty full index, complete this valuable work.

CURRENT TOPICS.

In the early settlement of Marbletown, old Washington Griggs and his three sons cultivated a farm and a blacksmith's shop together in the edge of the timber near the village, and whenever any of the neighbors met him and said, "How are you Uncle Wash?" he candidly replied, "Well, I ain't a complainin', me and the boys is makin' money"; and this was literally true, but it was counterfeit money they were making, for old Wash had a private mint in the garret, as the officers discovered when they came to search the place. I suspect that Uncle Wash and his boys when they came out of the penitentiary moved over to Nebraska, for I see by the papers that a private mint has been started there, and that the anonymous firm that owns it in some undiscovered place has coined about half a million silver dollars, and put them into circulation "to relieve the tightness of the money market" Whether the Nebraska mint is owned by the firm of Griggs and Sons or not, the partners in the business are "makin' money" after the plan of Griggs, excepting that they use a different material. The Nebraska coiners make genuine silver dollars, like those the Government coiners make, and exactly the same in weight, quality, and personal appearance. They can afford to be as honest in this matter as the Government itself, and coin fifty cents worth of silver into a dollar, taking the other fifty cents for "seigniorage," and making a fair profit. The Government is hunting for the Nebraska coiners to punish them for infringing on its exclusive right to make dishonest money, and this illogical proceeding is borrowed from the ancient practice. For centuries the kings of England were in the habit of adulterating the coin, and pocketing the "seigniorage" as their own. When a private citizen did the same thing he was hanged, but the king never was.

* * *

Some time ago a correspondent wanted me to tell him what the "seigniorage" was that the Government intended to coin into silver dollars, and I answered that in my opinion it was moonbeams, but since then a better definition has been found, and Mr. Hewitt of New York describes it as a "vacuum." To coin a vacuum into silver dollars worth fifty cents apiece, and then redeem them in gold dollars worth a hundred cents apiece is a financial feat never equalled since Aladdin's lamp was lost. It is the logical folly of the "legal tender" system. Once allow Government the power to declare gold, silver, or anything else a legal tender in payment of debts, and the way is opened for wild-cat finance unlimited. All a man has to do now when he loses in a trade is to add his loss to what he expected to gain, and coin them both into dollars, for such is the plan of Congress. We bought in round numbers 140 000,000 ounces of silver, for which we paid 126,000,000 dollars, and according to the present price of silver we lost 36,000,000 dollars by the trade; but if we had coined the silver into dollars of the present weight it would have made 180,000,000 dollars, and so the difference between the 126 millions that we paid for the silver, and the 180 millions that we might have coined it into, makes a vacuum of about 54 millions. This vacuum we now propose to coin into imaginary money, issue it as legal tender, and in this way get back the 36 millions that we lost and something more besides. If the dishonest legal tender principle were abolished altogether, Congress could not perform fantastic tricks with money; the finances of the country would soon be on a natural and scientific foundation, and coinage would be free.

* * *

The killing of two "game-keepers" by a "poacher" within a few miles of Chicago, reminds me of the feudal game laws that linger still in England. It appears that Albert Looker had been shooting game "on or near" the hunting grounds of the Tolleston Gun Club, a corporation of rich men living in Chicago; and it also appears that last Wednesday evening Conroy and Cleary the game-keepers found the poacher in a Tolleston saloon and began to punish him, whereupon Looker drew his revolver and killed them both. A coroner's inquest was held the next day, and the jury rendered a verdict of "justifiable manslaughter." The Tolleston Gun Club owns a very large tract of land, and this land is devoted exclusively to the pleasures of the gun. By a hunter's fiction, all the game that roams or flies over Illinois and Indiana belongs to the Tolleston Gun Club, and if any hungry hunter, not a member of the club, wanders on to the sacred wastes and shoots a duck or a deer, he himself is very liable to be shot by the game-keepers, or pounded into insensibility with a stick. According to the papers there was "near the centre of the marsh a stand which the game-keepers would mount with a field-glass, and if any unfortunate hunter was near they would open upon him with shotgun or with Winchester; and they claimed they were obeying instructions given by the club." As to this latter statement, it is only fair to say that it is contradicted by Mr. F. A. Howe of Chicago, the President of the Club, who went out yesterday to the scene of the tragedy, and said: "Conroy and his companion were hired to watch the grounds and allow no outsiders to trespass or do any shooting upon them, and that was as far as their authority went." Mr. Howe's version must be believed until it is fairly contradicted; but at the best, it is melancholy enough that thousands of acres of land within walking distance of Chicago are used exclusively as hunting-grounds for a few men who kill animals for "sport"

* * *

For a number of years, Messrs. Moody and Sankey, the celebrated evangelists, have had wonderful success in converting sinners, and so this winter they appointed a revival at Washington to try the effect of their sermons and their songs upon Congress; but the result was a failure, as might have been expected considering the hardness of the material, for although the "Houses" have chaplains of their own, paid by the nation to pray for them every day, the members remain impenitent and hard; in fact, they are like some regiments of soldiers I knew in the army, of whom the chaplain said: "The more they are prayed for the harder they get." According to the latest information, which, however, is open to correction later on, not a member of the House of Representatives was converted, and only one member of the Senate, Mr. Blackburn of Kentucky; and there are some doubts about him, for it is the general opinion that his conversion could be depended on with more certainty if he came from almost any other State than Kentucky; they have so many temptations there. For all that, Mr. Blackburn appears to be a promising convert, and there are well-founded hopes that he will stand firm upon the ice, for he is doing a little missionary work among his fellow-members of the Senate, distributing tracts and other light reading judiciously adapted to the size and strength of the senatorial mind. One of the tracts is entitled "The Song of the Sparrow," and the moral of it is that God cares for the most insignificant of his creatures, and that even a Senator is not outside the plan of salvation. I have room only for the first verse of the poem, but it is all equally good. Considering that the sparrow is not much of a singer, his poetry is entitled to more credit than it would be if he were a competent person like the mocking-bird. He says:

> "I am only a little sparrow,
> A bird of low degree,
> My life is of little value,
> But the dear Lord cares for me."

* * *

Even a sparrow, when he gets religion, can mix pride and humility together in his poetry, after the manner of self-righteous men in more pretentious hymns. Waiving that for the present, the sentiment of the song is a plea of the weak for more merciful treatment by the strong; and it is an appeal, not only for sparrows, but for men and women and children. The ethics of it is generous and humane, but the theology of it is open to some doubt,

for the sparrow is an outlaw in this very Christian land. In the State of Illinois there is a price upon his head, and the reward for slaying him is two cents. This looks like a vote of censure on the "dear Lord," for taking care of the sparrows, but it shows how feeble are the efforts of human legislation when directed against the divine government, for in spite of the destructive ingenuity of men and boys, excited by a bribe of two cents, to exterminate the sparrow by sticks, and stones, and bows and arrows, and guns, and traps, and catapults, and poison, the chirping nuisance increases and multiplies, and grows more mischievous day by day. With impudent sarcasm he says to his persecutors as emphatically as a sparrow can say anything, "Your laws are vain, for the dear Lord cares for me." And, if the argument from design is worth anything, he does. Although the sparrow sometimes appears in a false character as a "reed-bird," or as a "quail on toast," in the restaurant, he is really not good eating, and this is evidence of providential care. In addition to that, the "dear Lord" has endowed him with superior abilities for taking care of himself; he has given him besides a good appetite and a hardy constitution, a fighting talent that keeps other birds far away from the sparrow's hunting grounds. And then, he is not particular as to his diet, animal or vegetable, worms or wheat, it's all the same to him.

M. M. Trumbull.

BOOK REVIEWS.

The World's Parliament of Religions An Illustrated and Popular Story of the World's First Parliament of Religions, Held in Chicago in Connexion with the Columbian Exposition of 1893. Edited by the *Rev. John Henry Barrows*, D. D., Chairman of the General Committee on Religious Congresses of the World's Congress Auxiliary. Two volumes. Chicago: The Parliament Publishing Company. 1893. Pages, 1600. Price, $5.00.

Neely's History of the Parliament of Religions and Religious Congresses at the World's Columbian Exposition. Compiled from Original Manuscripts and Stenographic Reports. Edited by a Corps of Able Writers. *Prof. Walter R. Houghton*, Editor-in-Chief. Two volumes in one. Fully illustrated. Chicago: F. T. Neely. 1893. Pages, 1001.

Review of the World's Religious Congresses of the World's Congress Auxiliary of the World's Columbian Exposition. By *Rev. L. P. Mercer*, Member of the General Committee. Chicago and New York: Rand, McNally, & Company. 1893. Pages, 334.

A Chorus of Faith as Heard in the Parliament of Religions Held in Chicago, September 10-27, 1893. With an Introduction by *Jenkin Lloyd Jones*. The Unity Publishing Company. 1893. Pp, 333 Price, paper, 50 cents; cloth, $1 50.

The four books above listed are the chief works relative to World's Parliament of Religions which have yet appeared. The last, that of the Rev. Jenkin Lloyd Jones, is a short collection of extracts, chiefly taken from the reports of the *Chicago Herald*. Its virtue is its conciseness (three hundred and twenty-eight pages). The passages chosen bear almost exclusively upon the common ethical features of the different religions and on such general ideas as the brotherhood of man, the universal belief in God, etc., etc. The book is not a record of the Parliament's proceedings. But it is legibly printed on good paper, is inexpensive, and, bearing in mind its scope, may be recommended.

Rand & McNally's "Review" is the production of the Rev. L P. Mercer. It *is* an account of the Parliament, but a very imperfect one. It contains a few portraits. The type is large.

The second volume listed above, that of Neely, is known to the public chiefly in connexion with an advertising venture of *The Chicago Tribune*. It contains about one thousand pages and some portraits; the print is small, the binding poor and tasteless. It is furnished with an introduction full of platitudes and cant. One merit of the book is,—and it is a great one,—that aside from its thirty-one pages of Introduction and Preface, it contains only concise notes of the proceedings, without superfluous comment. The full addresses are not always given, but what is given, it seems, is given as nearly *verbatim* as the circumstances permitted. Where condensation was necessary, non-evangelical and liberal speakers chiefly suffered.

Dr. Barrow's work, the Chairman of the General Committee on Religious Congresses, is called "an illustrated and popular *story* of the World's First Parliament of Religions." It is a complete and detailed record of the Parliament. Its two volumes take up together sixteen hundred pages. It contains all the addresses delivered at the Parliament, those of the first volume, nearly *verbatim*, those of the second, owing to lack of space, condensed; photographs of the speakers, and photographic illustrations of the different churches, mosques, pagodas, and towers of the various religions, together with views of their principal monuments and ceremonies. It is, of course, the best and most complete book of reference yet published on the Parliament. The manufacture of the work was a task of great magnitude and one that demanded much critical knowledge and skill. Considering the difficulties and the haste with which it was prepared, the performance is a creditable one; but it can hardly be said that it is a really scientific piece of work. Its cost is five dollars, which, considering the general excellence of its form, is not very expensive.

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THE DISEASES OF THE WILL.

THE REALM OF CAPRICES.

BY TH. RIBOT.

To will is to choose in order to act; such is for us the formula of the normal will. The anomalies studied in my book[1] reduce themselves to two great groups: either the impulse is lacking, and no tendency to action is produced (abulia); or a too rapid or too intense impulse prevents a choice. Before examining the cases of obliteration of the will, that is to say, those in which there is neither choice nor acts, we will study a type of character in which the will does not constitute itself at all or does so only in a wavering, unsteady and inefficacious form. The best example of it that can be given is the hysterical character. Properly speaking we encounter here not so much a disorder as a constitutional state. The simple irresistible impulse is like an acute disease; the permanent and invincible impulses resemble a chronic disease; the hysterical character is a diathesis. It is a state in which the conditions of the existence of the will are nearly always lacking.

I borrow from the picture of the character of hysterics that Dr. Huchard has recently drawn, the features which relate to our subject: "A primary trait of their character is mobility. From day to day, from hour to hour, from minute to minute, they pass with an incredible rapidity from joy to sadness, from laughter to tears; versatile, fantastic or capricious, they speak at certain moments with an astonishing loquacity, while at others they become gloomy and taciturn, keep a complete silence, or remain plunged in a state of reverie or of mental depression; they are then seized with a vague and indefinable feeling of sadness, with a sensation of pressure in the throat, of a rising ball, or of epigastric oppression; they burst into sobs, or they go to hide their tears in solitude, which they crave and seek; at other times, on the contrary, they begin to laugh in an immoderate manner without serious motives. 'They behave,' says Ch. Richet, 'like children that one sets to laughing with noises when they still have on their cheeks the tears that they have just shed.'

"Their character changes like the figures of a kaleidoscope, which has led Sydenham to say with reason that the most constant thing about them is their inconstancy. Yesterday they were lively, amiable and gracious; to-day they are ill-humored, susceptible and irascible, vexed at everything and at nothing, capriciously disagreeable and sulky, discontented with their lot; nothing interests them, they are wearied with everything. They experience a very great antipathy toward a person whom yesterday they loved and esteemed, or, on the contrary, show an incomprehensible sympathy for some one else; so they follow certain persons with their hatred with as much bitterness as they had formerly had persistence in surrounding them with affection. . . .

"Sometimes their sensibility is exalted by the most trivial motives when it is hardly touched by the greatest emotions; they remain almost indifferent, impassible even, at the announcement of a real misfortune, and they shed tears abundantly and abandon themselves to the profoundest despair on account of a simple word falsely interpreted, and transform into an offence the lightest pleasantry. This sort of *moral ataxia* is observed even in regard to their dearest interests: one has the most complete indifference towards the misconduct of her husband; another remains cold before danger which menaces her fortune. In turn gentle and passionate, says Moreau (of Tours), kind and cruel, impressionable to excess, rarely mistresses of their first movements, incapable of offering resistance to impulses of the most opposite nature, presenting a lack of equilibrium between the superior moral faculties, will and conscience, and the inferior faculties, the instincts, passions, and desires.

"This extreme mobility in their state of mind and their affective dispositions, this instability of character, this lack of fixity, this absence of stability in their ideas and their volitions, explain the incapacity which they experience of giving their attention very long to reading, study, or any kind of work.

"All these changes follow each other with the greatest rapidity. In this class of patients the impulses are not, as in the case of epileptics, absolutely uncontrolled by the intellect, but they are rapidly followed by action. This is the explanation of those

[1] *The Diseases of the Will*, from which this article is extracted. New authorised translation to appear in a fortnight. Chicago: Open Court Publishing Company.

sudden movements of anger and indignation, those headlong enthusiasms, those fits of despair, those explosions of mad gaiety, those great bursts of affection, those quick accessions of tenderness, or those sudden transports during which, acting like spoiled children, they stamp with their feet, break furniture, feel an irresistible need of striking something. . . .

"Hysterical patients act as they are led by their passions. Almost all the various inconstancies of their character, of their mental state, can be summed up in these words: they do not know how to use their will, they cannot and will not do it. It is, indeed, because their will is always unsteady and faltering, because it is unceasingly in a state of unstable equilibrium, because it turns at the least wind like the weather-vane on our roofs; it is for all these reasons that hysterical patients have such mobility, such inconstancy, and such changeableness in their desires, their ideas, and their affections."[1]

This portrait is so complete that we need not prolong our comments. It has put before the readers' eyes that state of incoördination, of broken equilibrium, of anarchy, of "moral ataxia"; but we have yet to justify the statement that we made at the outset: that there is here a constitutional impotence of the will; that it cannot arise because the conditions of its existence are lacking. For the sake of clearness I will anticipate what is to be established with more details and proofs at the close of this work.

If we take an adult person, endowed with an average will, we shall observe that his activity (that is to say, his power of producing acts) forms in general three planes: on the lowest are the automatic acts, simple or composite reflexes, habits; above are acts produced by the feelings, emotions, and passions; higher still are rational acts. This last stage presupposes the other two, rests on them, and consequently depends upon them, although it gives them co-ordination and unity. The capricious characters of which the hysteric is the type have only the two lower forms; the third is, as it were, atrophied. By nature, save in rare exceptions, the rational activity is always the least strong. It obtains the mastery only on the condition that the ideas awaken certain feelings which are much more apt than they to express themselves in acts. We have seen that the more abstract ideas are, the weaker their motory tendencies. In hysterical patients the regulative ideas do not arise or remain sterile. It is because certain notions of the rational order (utility, propriety, duty, etc.) remain in the state of mere conceptions, because they are not *felt* by the individual, because they produce in him no affective response, do not enter into his substance, but remain like something

[1] Axenfeld and Huchard, *Traité des névroses* (second edition, 1883), pp. 958–971.

brought in from outside; it is on these accounts that they are without action and for all practical purposes as if they did not exist. The power of individual action is maimed and incomplete. The tendency of the feelings and passions to show themselves in acts is doubly strong, both in itself and because there is nothing above it which checks and counterbalances it; and as it is a characteristic of the feelings to go straight to the goal, after the manner of reflexes, to have an adaptation in one single direction, unilateral (just the contrary to rational adaptation, which is multilateral), the desires, born quickly and immediately satisfied, leave free room for others, analogous or opposed, according to the perpetual variations of the individual. There exist only caprices, at most desires, a rough outline of volition.[1]

This fact, that desire goes in a single direction and tends to expend itself without delay, does not, however, explain the instability of the hysteric, nor his absence of will. If a desire always satisfied springs up again continually, there is stability. The predominance of the affective life does not necessarily exclude the will: an intense, stable, permitted passion is the very basis of all energetic wills. It is found in the great men of ambition, in the martyr unshaken in his faith, in the red-skin bidding defiance to his enemies in the midst of torments. It is necessary, then, to seek more deeply the cause of this instability in the hysteric, and this cause can be nothing else than a state of the individuality, that is to say, in the final reckoning, of the organism. We call that will strong whose end, whatever be its nature, is fixed. When circumstances change, means are changed; there take place successive adaptations to the new environment, but the centre towards which all converges does not change. Its stability expresses the permanency of character in the individual. If the same end continues to be chosen, approved, it is because that at bottom the individual remains the same. Let us suppose, on the contrary, an organism with unstable functions, whose unity—which is only a consensus—is continually dissolved and reconstituted on a new plan, according to the sudden variation of the functions that make it up; it is clear that in such a case choice can hardly arise, cannot last, and there remain only whims and caprices. This is what takes place in the hysteric. The instability is a fact. Its very probable cause is in functional disorders. Anæsthesia of special senses or of the general sensibility, hyperæsthesia in its various forms, motor disorders, contractures, convulsions, paralyses, derangements of the organic functions, vasomotor, secretory, etc., occurring successively or simul-

[1] Let us note in passing how necessary it is in psychology to take account of the ascending gradation of phenomena. Volition is not a clear and well-defined state which either exists or does not exist; there are sketches and attempts.

taneously, keep the organism in a perpetual state of unstable equilibrium,[1] and the character, which is only the psychic expression of the organism, correspondingly varies. A stable character upon such an unsteady foundation would be a miracle. We find, therefore, the true cause of impotence of will to be here, and this impotence is, as we have said, constitutional.

Some facts contradictory in appearance really confirm this thesis. Hysterical patients are sometimes possessed by a *fixed* idea, which cannot be conquered. One refuses to eat, another to speak, another to see, because the labor of digestion, or the exercise of the voice or the sight would bring about, as they suppose, some suffering. One meets more frequently with that kind of paralysis which has been called "psychic" or "ideal." The hysteric stays in bed for weeks, months, and even years, believing herself unable to stand up or to walk. A moral shock, or the mere influence of some one who gains her confidence or acts with authority effects a cure. One begins to walk at the announcement of a fire, another gets up and goes to meet a long-absent brother, another decides to eat out of fear of the physician. Briquet, in his "Traité de l'hystérie," reports several cases of women whom he healed by inspiring them with faith in their recovery. There might also be mentioned a good number of those cures called miraculous which have attracted the public curiosity from the time of the deacon Paris to our own day.

The physiological causes of these paralyses are much in dispute. In the psychological order we observe the existence of a fixed idea the result of which is an inhibition. As an idea does not exist by itself and without certain cerebral conditions, as it is only a part of a psycho-physiological whole—the conscious part—it must be admitted that it corresponds to an abnormal state of the organism, perhaps of the motor centres, and that it draws thence its origin. However that may be, it is not, as certain medical men have persistently maintained, an "exaltation" of the will; it is, on the contrary, its absence. We are recurring to a morbid type already studied, which differs from irresistible impulses only in form; it is inhibitory. But there is no direct reaction against the fixed idea on the individual's own part. It is an influence from without which imposes itself and produces a contrary state of consciousness, with the concomitant feelings and physiological states. There results from this a powerful impulse to action, which suppresses and replaces the inhibitory state; but it is hardly a volition; at best it is a volition with another's aid.

This group of facts brings us, then, to the same conclusion: an impotence of the will to form itself.[2]

[1] For the details of the facts see the work cited, pp. 987–1043.

[2] For the facts see Briquet, *Traité de l'hystérie*, chap. x; Axenfeld and Huchard, op. cit.. pp. 967–1012; Cruveilhier, *Anatomie pathologique*, book xxxv, p. 4; Macario, *Annales medico-psychologiques*, vol. iii, p. 62; Ch. Richet, in *Revue des Deux Mondes*, Jan. 15, 1880; P. Richer, *Etudes cliniques sur l'hystéro-épilepsie*, etc., part third, chap. ii, and the historic notes.

CHAPTERS FROM THE NEW APOCRYPHA.

THE SPIRIT HID WITH CHRIST.

BY HUDOR GENONE.

Now, it was in the winter, while Jesus journeyed in the hill country beyond the Jordan with one of his disciples.

And certain elders of the church came and joined themselves unto him.

And one of these was a Pharisee, and another a Saducee.

And as they journeyed, they disputed among themselves concerning the commandments of the law of Moses, and concerning the mystery of the Kingdom of Heaven.

For he that was a Pharisee said, that the body should rise again at the last day;

But the Saducee denied with an oath, saying, What saith the Preacher?—The body shall return to the earth as it was. As the prophet Sadoc saith, there is no resurrection.

And Jesus heard them, and sorrowed in his heart, and saith unto them, Why is it ye have no understanding?

And he stooped down and took a clod of earth from the wayside, and he showed it unto the Pharisee.

And saith unto him, Verily, I say unto you, thy body is even as this clod.

But as the brickmaker cometh and taketh the clay and fashioneth it, and burneth it in the furnace to make bricks;

And the builder buildeth of the bricks an habitation,

Even so out of the clods of the earth in his own way man fashioneth himself and buildeth an habitation, even a temple for the spirit.

For which is more excellent, the temple, or the altar for which the temple was builded?

Or which is the holier, the altar, or the burnt offering that is offered upon the altar?

Or which is the greater, the burnt offering, or the priest that offereth the burnt offering?

Then Jesus saith unto the Saducee, Verily, the Preacher saith, the body shall return to the earth as it was, but the spirit shall return to God, who gave it.

Now, both the Pharisee and the Saducee were amazed at his doctrine, and with one accord they say unto him, Master, what is spirit?

And Jesus answered and saith unto them, This thing God hath hid from the wise and prudent, but hath revealed it unto babes.

It is heat out of cold; it is light out of darkness; it is wisdom out of folly.

But they said, Lo! now thou speakest in parables.

And yet thou sayest, we have no understanding. Make thy meaning plain.

And Jesus saith unto them, I will. All power is given unto me of the Father to discern the hidden things; behold yonder black stone.

And they looked and beheld the black stone.

And Jesus saith again, Behold this morsel of ice.

And as he spake, he stooped down and took the morsel of ice in his hand. And he moulded it, and fashioned it, till it was like in shape unto an eye.

And he looked up to Heaven, and cried aloud, saying, Thou hast given unto me, O Father, to discern the hidden things that are hid in the earth, even the things that thou didst hide in the days of old.

Bring forth now thy power and manifest thy glory, —the glory that was hid before the mountains were brought forth.

And Jesus held up the morsel of ice betwixt his fingers. And God caused his sun to shine, and the might thereof shone down and touched the morsel of ice. And the sun was changed by the morsel of ice.

In a moment, in the twinkling of an eye, behold the changed sunlight fell upon the black stone, and it became red with fervent heat.

And the Pharisee and the Saducee ran and touched their fingers unto the stone, and the stone burned them.

And they fell down at the feet of Jesus for to worship him, saying, Truly thou, even thou art the Son of God. Thou, even thou, art worthy of glory and honor.

For thou hast indeed made our folly to be wisdom.

But Jesus saith unto them, Call no man worthy. There is none that is worthy save God, and the spirit that is hid in me with God.

"SENATORIAL REFORM."

BY E. P. POWELL.

It seems to me an anomaly in literature that as able a thinker as Mr. Conway should have written the assault on the American Senate contained in *The Open Court* for March 15. In the first place it is pure assumption to assert that the leaders in forming the American Constitution: Jefferson, Madison, Adams, Franklin, Mason, Randolph, were the victims of an immature system of petty despotisms. The words of the Constitutional convention are supported by the private correspondence of all those men showing that no feature of the Constitution seemed to them more happily devised than that creating a Senate of the States. But the curious part of Mr. Conway's argument appears when he goes on to show the steady lapse of direct popular representation, "It is notorious that in democratic countries the ablest and best men shrink from vulgar competition—the enlargement of the franchise in England has been accompanied by a marked decline in the character of the Parliament." Here then the House of Representatives is swept away virtually as well as the Senate: the first as representing "Rotten boroughs" on petty jealousies constituting States; and the latter as a democracy that in its nature is degenerative. We are prepared for cyclic periods of destructiveness; but for one I was not prepared to see Mr. Conway heading the movement in America. There is certainly no pretence to argument in the supposition that the Constitution-makers' ghosts would now inform Mr. Wallace that they have changed their minds—would he only consult them. Mr. Wallace is certainly entitled to entire courtesy both as a spiritualist and a scientist.

Having shown the utter worthlessness of the existing form or forms of democracy, Mr. Conway furnishes us with a panacea; and this is the most curious part of his paper. It is the introduction of "secret ballot" into Congress. "The people would then have to choose the wisest and best man, knowing that they could have no control over his vote." On the contrary, would they not, if desirous of corrupt legislation, select men whose principles they would not fear. Imagine a corrupt gang of voters, such as Mr. Conway suggests as now sending their tools to Congress, sitting down to the desperate necessity of picking out saints, because they could not be sure how the fellows would vote. The logic would be something of this sort, "We can't tell what our representatives will do, because they will vote in secret: therefore let us send those whom we are *sure* will not do what we wish and who do not in any sense represent such a constituency as we compose." The value of the secret ballot as opposed to the open ballot would be a theme by itself; but as a panacea against the fact that democracy tends to grade downwards its governing bodies, it is impossible and absurd.

The panacea for the Senate is a different affair altogether. Despairing of quite abolishing the Senate, Mr. Conway would take away its power as an equal legislature. Then follows this Parisian concoction; "One of the two senators of each State might be chosen by the alumni of its colleges and learned societies" (turning them from top to bottom into political bodies; and making our college presidents very quickly of different material) "placing in the revising council the Republic of Letters." The other senator he thinks might be left as now to selection by the Legislature. Probably when the Senate is thus recast there will be at least one million American citizens and English neighbors to suggest each an independent plan. We have never yet in the world's history got rid of human nature; nor in any form of government are we liable now or hereafter to secure rulers much unlike ourselves. A popular governing body will stand for the people about as they are; and the system of checks and counter-checks devised by Jefferson, Madison, and Washington is about as much as is needed, and probably quite as efficient as that which is by Mr. Conway suggested. I will add, however, that if we are to have one senator selected by academic associations and college boys, the other might as well be passed over to the churches. These two bodies at present probably contain as much of the survival of mediæval spirit as any that can be suggested. If our very rottenest boroughs with secret ballot in vogue, will turn to the selection of the most eminently virtuous men for representatives, the Church can perhaps be trusted as well as the colleges to match these with senators of the same sort. I have as much faith in this plan as I have in reforming our nation by the plan of Mr. Morse, that is by placing the words God and Christ in the Constitution.

But the real gist and heart of this subject is not touched. Waiving the evils of that democracy, which was by no means a new idea devised by our fathers; let us see that the one great stride ahead in the way of government and society devised by them was "Federal Union"; the alliance and federative co-operation of distinct and independent States. This idea was never before broached or conceived by Aryan diplomats and nation makers. I have no room here to show its historic relation to other political ideas; and how it is a legitimate evolution of popular government from the primitive township. I wish only to dwell on it long enough to show that in it lay the possibility of covering a continent with a single nation, instead of a jealous group of States like those of Europe. It has taken America into the bond; and added over thirty new States to the original thirteen. It has reached the

Pacific. It is fraternising to North and to South. It has begun the recreation of the opposite shore of Asia. The fraternity of nations is before us; as also the fellowship of religions. Canada and Mexico are not the only ones that anticipate Union. Never before was there an idea that permitted of the abolition of standing armies; and the mutual good will of peoples three thousand miles apart. And this is *not* democracy merely; it is the *federal union of States*; States that Mr. Conway denounces as "survivals of the basest characteristics of the reactionary reign of George III." These States exist in our Senate; abolish that and you have struck out the very life of our Constitution; you have undone all that our fathers devised. The one institution of America to be jealously guarded is the Senate. We might even dispense with an executive chief; but when the Senate is gone you have only a democracy. Never in the world's history could a democracy cover a large territory: the smaller the safer. But the federal union of independent States is safer the larger it grows. Abolish the Senate and you abolish the States. Even Hamilton late in life became a convert to the integral necessity of States. Instead of throwing a half of the Senate to the colleges; let us at once complete the sublime scheme of education planned by Jefferson: common schools everywhere, centering in State universities; and State universities graduating into a great national university at Washington. In this way we have, what we ever should have in popular government, two coextensive collateral forces, the educative and the legislative.

"THE SENATE OF THE UNITED STATES."

BY HORACE P. BIDDLE.

I have read the several articles published in *The Open Court*, attacking the Senate of the United States. It seems to me that they do not correctly represent the organisation and the purpose of the Senate.

The Constitution of the United States was formed by the people of all the States, not as one mass representing a single interest, but by each State representing the people and the autonomy of the State, in the interest of a common union of the States, as sovereign equals, and the equal rights of all the people In Congress the House represents the people of the United States by States; the Senate represents the sovereignty of the States without reference to the number of people in the separate States. The President represents the people of the United States equally, and the equal sovereignty of all the States. If the Senators and Representatives sat in the same chamber and voted equally as one body, then the objections taken to the Senate would lie, but as it is, they do not. The House cannot invade the sovereignty of the States, the Senate cannot invade the rights of the people. It is immaterial whether each State has two or twenty Senators, or whether its people are many or few, the representation is the same—that is, equal between the States which the Senate represents. Shall a small State not have the same rights as a large State? Shall a weak State not have the same rights as a strong State? Shall a State with but few people not have the same rights as a State with many people? To further illustrate the principle, shall a small, weak man not have the same civil rights as a large, strong man?

It is impossible for the Congress to pass a law, constitutionally, that does not represent all the people of the United States equally; and the sovereignty of all the States equally, without a possible invasion of the rights of the people or the States; and should the Congress pass a law, unconstitutionally, that invades the rights of the people, or of the States, yet, beyond the legislative and executive power stands the judiciary to correct the error, and preserve the Constitution intact. Can any government be more fair, more just, more equal, or more secure?

Abolish the Senate and take away the equal representation of the States in their autonomy, and there would be nothing left to prevent Congress, by the power of the larger States, from oppressing the smaller States, and consolidating them all into one massive empire, as one State ruled by a single power. History reads us many lessons as to what, then, would be the fate of human liberty.

CURRENT TOPICS.

THAT excellent English paper, *The Newcastle Weekly Chronicle*, fears the importation of American political methods into England, and it starts with justifiable alarm at the prospect of a Tammany Hall in London. In the *Chronicle* of March 17 I find these words of warning: "It has already been pointed out that the formation of a society of political agents is bringing us nearer and nearer to that system of machine politics which has produced so much corruption in the United States. As matters look at present, it will probably not be long before we shall have a Tammany Hall in England—an institution which will make the ballot a fraud and popular government a scandal." The diagnosis is correct, but in the language of a famous chief of Tammany, "What are you going to do about it?" Tammany is a product, as a toadstool is; and if ever a population like that of New York shall get control of London through the ballot-box, Tammany will spring up in England as naturally as a weed springs out of the ground. Newcastle will have one, and Leeds, and Birmingham, and every other town where the conditions that make Tammanies happen to be. It will not be known by the name of Tammany, for that would awaken suspicion and arouse hostility; but the machinery will be set up, the engineers will go to work, and the looting of the cities will be done in the manner and style of Tammany.

* * *

From a careful reading of the *Newcastle Chronicle* I am of opinion that the scouts of Tammany have already invaded England under the name of "Election agents," and that they are smuggling American election machines into that country in a small way, and showing the natives of that benighted island how to use them so as to cheat, and bamboozle, and bribe. The *Chronicle* is properly shocked, because "one of the questions which the election agents are asked to answer is this:—'What form of words would you advise for the use of a candidate anxious to pledge himself to the Temperance party without losing the support of the liquor interest?'" This may look like a hard problem to an Englishman, but an American politician worthy to be a coal-heaver for the engineer who runs the machine could give the correct solution in two minutes. In our political arithmetic such a problem as that is merely a sum in simple addition. I know hundreds of men of all official grades, from senators to constables, who have triumphantly answered it. What does the *Chronicle* think of the following "form of words" as an answer by a candidate, say for mayor of a city, where there are laws requiring liquor-shops to be closed on Sundays, on election days, and at certain hours of the night? The candidate wants to please the Temperance party without offending the liquor interest, and he says:

> "That while all ordinances should be enforced, with the view to the suppression of vice, the executive department should construe the laws in the spirit of tolerance, with due regard to the cosmopolitan character of the population, so that the customs and habits of the various peoples be not interfered with, nor their personal liberty and individual rights impaired."

* * *

What does the *Chronicle* think of that as a duplex machine-made contradiction? That specimen is official; it is not the product of a reckless imagination, but it is exactly the "form of words" employed by a last year's candidate for the mayoralty of Chicago. I have no copyright on it, and I am perfectly willing to have it used in England. This formula, however, is too easy to be thought worthy of a place in the political algebra that our skilful statesmen use when they advocate a tariff for revenue only, levied in such a way as to protect American industry; and when

they declare for gold, silver, and paper legal-tender dollars of unequal value and equal purchasing power according to the single standard of the markets of the world, regulated with a bi-metallic balance-wheel, so constructed as to prevent the money-kings of Great Britain from dictating the financial policy of America; a firm and stable gold medium of exchange made flexible and elastic by the free coinage of silver at a ratio of sixteen to one. If there is any question of English policy disputed by two contradictory parties, the English politicians need no longer be baffled by consistency. Let them send their orders over here, and we will agree to furnish a "form of words" that will enable them to pledge themselves to one party without losing the support of the other.

* * *

Speaking of elections and the practices of Tammany, reminds us that Chicago is in "the throes and convulsions" of an election contest now. Next week we elect aldermen, assessors, and some other officers to domineer over us and misgovern the city. The tournament is animated, for the prizes and the perquisites are large; unlawful, if you please, and even criminal, but the contestants care nothing for that; the plunder is close at hand, while the prison is far away. Passionate appeals are made, and the good citizens are called upon to turn out and vote for the best men; but our masters laugh at the exhortations, and, shaking their brass knuckles in the faces of the people, say to them, "You may vote, but we will count; see!" Here is a description which I find in the *Chicago Herald* of some of the "judges" appointed to superintend the polling, and to receive and count the ballots. Introducing one of the candidates to its readers, the *Herald* says, "Among the men he has selected to act as judges and clerks of election in the Sixth Ward—his stronghold—are one pickpocket, one indicted ballot-box stuffer, one dive-keeper, one professional thug, one horse-thief, one burglar, one highway robber, and one man charged with arson. The returns are not all in yet, but it will doubtless be found that the full list will comprise men who are guilty of every crime on the statute books and several that have not been classified." These are the potentates who appoint legislative officers and administrative agents for one of the great cities of the world. This is the dark side of it, but there is a brighter side. There are many judges of election in Chicago who are absolutely honest and incorruptible; and there are candidates, too, whose fingers never were and never will be "contaminated with base bribes," and one of them is an independent candidate for alderman in my own ward. I shall enjoy the luxury of giving him a vote, although I really do not know whether he is a Republican or a Democrat; but whether my vote will be counted for him or not is one of the occult mysteries of the ballot-box. After I have dropped it into the box it will be no longer in my care; it will then be at the mercy of the "judges."

* * *

I do not know whether the story is true or not, but it is in the newspaper correspondence from Washington that, "The President lost his temper yesterday while a party of Western and Southern congressmen were trying to persuade him to sign the Silver Bill, and he gave them rather a stiff talking to." It was not the Bill they cared about, in fact they had rather a contemptuous opinion of it, but as many of their constituents were silver plated, those honorable members were fearful of the political consequences that might follow should the President veto the Bill. They cared nothing for the country, but they did care for themselves. The country was reasonably safe, but they were not; in fact some of them said that if the Silver Bill failed they could not possibly be re-elected, and that would be a tragedy for the Democratic party. Instead of rushing to the rescue of the party, the President gave to his visitors a very improving lecture on political morality, holding up to scorn "those members of Congress who pandered to the delusions of the people and voted for all sorts of legislation in order to keep themselves in office." The President also said that he had "a decided contempt for any one who would ask him to aid in such legislation for such a reason." Leaving out of the question the merits or the deficiencies of the Silver Bill, the lecture was a good one, and will apply to all the time-serving policies of all the demagogues who "pander to popular delusions in order to keep themselves in office."

* * *

I forgot to mention in the preceding paragraph that the disappointed congressmen after leaving the White House explained that the warmth of the reception given them by the President was due to some bodily pain that made him irritable and cross. They said that the reprimand he gave them was due to "an attack of the gout in the President's left foot, and that the agony of it made him ill-natured." If this is true the gout is a useful moralist and the source of some good political doctrine. I hope it will become prevalent in all the high places in this land; and I trust that it will become epidemic in Congress. I am told that the gout is a very painful disease, but I can bear it patiently in the left foot of the President, for the sake of the public welfare, and therefore I pray that he may not get rid of it until after the adjournment of the present Congress.

M. M. Trumbull.

A NEW DICTIONARY.[1]

Within four years from the date of its inception the Messrs. Funk & Wagnalls have presented to the English-speaking public the first of the two volumes of their new Standard Dictionary, which in simplicity and economy of design, and in scope and magnitude of purpose stands almost unrivalled even in this prolific age of great lexicographical works. The commendable celerity with which this great task has been brought to completion is characteristic of American methods, which have marked the work with more than one of our national peculiarities. We cannot feel too much indebted to the zeal and enterprise of the gentlemen who projected and achieved in so short a time this great task; for it is rarely that a generation who sees a great dictionary begun, sees it finished.

The great German work by Grimm, begun in 1838, had in 1886 not yet completed the letter G. Renan, the story goes, once calculated that the new monster dictionary of the French language would be completed somewhere about the close of the twenty-second century. "Sweet Monsieur Renan!" replied one of his friends, "he tells us this simply to keep up our spirits!" The project of the New English Dictionary, on historical principles, was formed by Archbishop Trench in 1857, and just lately its editor, Dr. Murray, gives the part which almost completes the Dictionary to the letter F. We need not mention Dr. Strong's famous Dictionary of Greek Roots, which "on the Doctor's plan and at the Doctor's rate of going" was to take "one thousand six hundred and forty-nine years, counting from the Doctor's last or sixty-second birthday." But if we reflect that the great "botanical' work of Dr. Strong was a one-man dictionary, while our modern lexicons are the joint work usually of *hundreds* of minds, we shall recognise that the calculation of David Copperfield's friend was

[1] A Standard Dictionary of the English Language Upon Original Plans, Designed to Give, in Complete and Accurate Statement, in the Light of the Most Recent Advances in Knowledge, and in the Readiest Form for Popular Use, the Meaning, Orthography, Pronunciation, and Etymology of All the Words and the Idiomatic Phrases in the Speech and Literature of the English-speaking Peoples. Prepared by more than two hundred specialists and other scholars, under the supervision of Isaac K. Funk, D. D., Editor-in-Chief; Francis A. March, LL. D., L. H. D., Consulting Editor; Daniel S. Gregory, D. D., Managing Editor. *Sold only by subscription.* Prices: Single volume edition—Half Russia, $12.00; Full Russia, $14.00; Full Morocco, $18.00. Two-volume edition—Half Russia, per volume, $7.50; Full Russia, per volume, $8.50; Full Morocco, per volume, $11.00. All forms have Denison's Patent Reference Index. New York, London, and Toronto: Funk & Wagnalls Company. 1893.

not far from right.[1] Only three great dictionaries, the *Imperial*, the *Century*, and the *Standard* have been completed within a reasonable time after their commencement, although this merit perhaps belongs more especially to the *Century* than any other.

In criticising the *Standard Dictionary*, its purpose must be carefully borne in mind. It is not intended, as the *Century*, to be an *encyclopædic* dictionary of the English language, nor as the new English Dictionary of Dr. Murray, to be a self-verifying *history* of the English tongue, but, as its title states, it is "designed to give, in complete and accurate statement, in the light of the most recent advances in knowledge, and in the *readiest form* for *popular use*, the meaning, orthography, pronunciation, and etymology of all the words and the idiomatic phrases in the speech and literature of the English-speaking peoples." At the same time it claims that its vocabulary is extraordinarily rich and full, and that by the economy and simplicity of its plan of arrangement it has been able with all due exclusiveness to comprehend some 280,000 words in a compass of two volumes of not much more than one thousand pages each. Its merits will best be seen by an enumeration of its distinctive features.

It is pre-eminently a work for the people; but a work *by scholars* for the people. In conformity with its plan of being a useful handbook for the people, that definition which gives the most common meaning of the words of the language is placed first—a feature in which this dictionary differs from all others, where the historical order is followed—and the etymology is placed at the end. Etymologies are given in the simplest form possible. The usefulness of the book is not impaired by exuberant philological jungles, which hide from the reader the matter he really seeks. In giving the pronunciation of words, the scientific alphabet, prepared and recommended by The American Philological Association, and also supposed to be in harmony with the principles accepted by the Philological Society of England, is used. This is an excellent feature of the Dictionary, and even if the new orthography proposed by the Association is never adopted, the use of it for the indication of pronunciation will greatly help to bring order into the chaos which now exists in our schools. All the improved spellings recommended by the Philological Association, or suggested by their plan, are put in their regular alphabetical place in the Dictionary, seemingly without a great increase of the size of the work. In spelling, the effort has been towards simplification. Weight has been accorded to the canon "write as you speak." But it is a pleasure to note that contrary to the usage of our old lexicographers, in the *Standard all* variant forms are given.

The idea which has controlled the inclusion or exclusion of words is as follows. A dictionary must tell us what words and phrases mean as used by representative writers and speakers of the language. The question is not, should the word be in the English language, but *is* it. Helpfulness should be the ideal of a dictionary. Obsolete, foreign, dialectic, and slang words are given places only if likely to be sought for in a general English dictionary. A living dictionary should not be a museum of dead words; therefore, only such obsolete words as are found in old authors still extensively read, such as Chaucer, Spenser, Milton, Shakespeare, and so forth, are incorporated in the *Standard's* vocabulary. Self-explanatory phrases and compounds are omitted. New literary terms were subjected to a committee on new words, consisting of some of our most competent judges. Unimportant technical terms are omitted; not all that have been invented but only such as are accepted have found a place. Provincialisms of extensive local usage, of course, are registered, as are also handicraft terms.

With respect to definitions the Standard Dictionary claims exceptional excellence. The aim here has been economy and precision. Illustrative quotations are very sparingly employed. The quotations used to verify or illustrate the meanings of words are supplied not only with the name of the author, but also with the page and edition from which the quotation has been taken. "Stock" dictionary quotations, those which are seen in nearly all dictionaries, have been avoided and new ones sought—a work accomplished by nearly a thousand readers from the great living books of English literature, but chiefly from recent authors. The definitions have been constructed by specialists or by members of the trade to which the term belongs, they being supposed to know more about such terms than persons unconnected with the branches. This also has been done with respect to the forms of words.

The principle, of course, is the proper one, although it must not be carried too far, as one could hardly say that a farmer was the best fitted person to define the meanings of agricultural terms, or to decide their forms or proper pronunciations. An instance of this is the decision of the Dictionary with regard to the form of the word *aluminium*. Here the form al*umin*um is preferred, as we see from the quotations, because manufacturers and dealers in chemicals use al*umin*um. This was the form first given by its discoverer, Sir Humphrey Davy, but it was at once changed by scientific writers to *aluminium* to make it agree with the general form of the elements, *sodium*, *lithium*, etc. Now the same tendency which induced the Dictionary to be "aggressively positive" along lines of reform agreed upon by eminent philologists and to adopt forms of words conforming to analogy, whether originally accepted in the literature of the language or not, should have determined them in the present case to give the preference to the scientific form, instead of accepting the dictum of some commercial firm in Pittsburg who write that "the way of pronouncing and spelling the name in this country is entirely aluminum!"

To revert to orthography and orthoëpy again, in the spelling of chemical terms the rules of the Chemical Section of the American Association for the Advancement of Science have been preferred, according to which chloride, sulphide, bromine, morphine, are spelled chlorid, sulphid, bromin, and morphin. This changes the pronunciation of common chemical words, which is unnecessary, and which if any usage exists on the matter will scarcely be adopted; while with respect to the pronunciation of *new* scientific words, no uniformity of usage ever will obtain, because the inventors of the terms themselves rarely have any idea of how they ought to be pronounced, and individual scientists usually pronounce them according to their own ideas. Dr. Murray says he was once present at the meeting of a learned Society in London where the word *gaseous* was systematically pronounced in six different ways by as many eminent physicists, and adds, that if it is possible that a word which though comparatively new was even then sufficiently popular to have attained some standard pronunciation, how much more is it so with the words that have no popular currency, and which were made not to be spoken but to be used in books.

The editors of the Dictionary recognise that it is the chief function of a dictionary to record usage, not, except in a limited degree, to seek to create it; and in general we may say that on all moot points their professed attitude, which is that of unprejudiced statement and not advocacy, has been steadily preserved. They claim they have been very careful in their preferences, where custom or usage varies, to give their sanction to the *best* form or tendencies. But in all cases, all forms are given. Their decision was simply which should have the preference.

But just here is an illimitable field for discussion, and even difficulties may arise. We shall make but one remark, relative to

[1] But that great Arabian scholar, *Ibn Manzur* (A. D. 1311), wrote, single-handed, a dictionary larger than the largest of our many-men dictionaries, the *Century* (over seven thousand large folio pages); and so did *Sayyid Murtada* (1790). Both these lexicons are in the Müller Semitic Library, recently purchased for the Hartford Theological Seminary.

the diphthongs *æ*, *œ*, etc., and the digraphs *ph*, etc., in words where these are transliterations of Greek diphthongs and digraphs. Where such words are firmly established no objection is to be made to the simplification, as in *enigma* and *fancy* for example; but where recent or scientific words are used, the letters of the original should be as strictly adhered to as possible, because usually the scientist has no means of knowing the meaning of a new word except by his knowledge of the roots, which if the transliteration is tampered with, may conflict. For example: if the Greek *koinos*, common, and *kainos*, new, are both transliterated, in English compounds, by *ceno*, and not by *cœno* and *cæno*, then, not only are new derivatives from *kenos*, empty, likely to be confounded with them, but both are apt to be confounded with each other. And such is actually the case. Suppose a student of science, meeting in the works of F. Müller the word cenogenesis, should look that word up in some of our dictionaries; he would find that it meant both what cœnogenesis means and what cænogensis means, which conceivably might have *different* meanings.[1]

In the etymologies, foreign words, such as Greek, are transliterated, which helps immeasurably people ignorant of foreign tongues. It also seems that that definition of radical words which is the most common is given in preference to the root meanings first; for example, in the definition of the word aboulia, where the word is derived from *a*, privitive, and *boule*, advice. Now, although the common meaning of *boule* is advice, its root-meaning is *will*, from *boulomai*, to will. And this is exactly the meaning which explains the present scientific significance of the word, namely, absence of will-power.

Some idea of the extent to which the terminologies of the special sciences have increased the bulk of our dictionaries may be gained from the fact that in the *Standard* there are about four thousand terms that refer to electricity or its various applications. Probably the number in the biological sciences is much greater.

Strongly commendable features of the Dictionary are the omission of the diæresis, its system of compounding words, and its system of syllabication, subjects of extraordinary confusion in literary and lexicographical usage. But an enumeration of all its mechanical advantages is out of the question. In economy of form and in the logical and systematic execution of its fundamental ideas, it is superior to any of its rivals. The treatment of synonyms and antonyms is unique. The pictorial illustrations are appropriate and well made; in fact, almost gorgeous. For example, the illustrations of coins, gems, flags, etc. An important feature is the exact definition of the six primary colors of the spectrum with an analysis of all known shades and tints. The plates for this department were made by Messrs. Prang & Co., Boston.

There were engaged in the production of this dictionary two hundred and forty-seven office editors and specialists together with nearly five hundred special readers for quotations. Hundreds of other men and women rendered service in various ways in the defining of words or classes of words. The specialists engaged in the work were the most eminent men of their departments in the English-speaking world. It was only by the help of such a number of men that so great a labor could be completed. It is, thus, in the fullest sense of the expression, says the Editor-in-Chief, an intellectual collaboration; and is accordingly called the "Standard" in just recognition of the expert knowledge and authoritative scholarship of the editors of the various departments.

THOMAS J. McCORMACK.

[1] The first users of *cenogenesis* in English, sensible, perhaps, of the confusion likely to arise from the presence of an already established word of the same form, transliterated the Greek word with a *k* making it *kenogenesis*. In this form it appears in the new dictionaries, contrary to their usual rule of making a Greek *k*, *c*. We also notice that the Standard gives *kainos*, new, as the root of this word, which, if it would make any difference, seems to be correct, although in the German works in which the word first occurs, it is written with an *e* and is always associated with such words as *Verfälschung*, *Fälschung*, meaning *vitiation*, all of which epithets, perhaps, prompted the usual derivation of the word from *kenos*. But the meaning of the word being established, its derivation is wholly indifferent, and this discussion may seem somewhat pedantic. But it involves a point which as this example well shows is not originally unimportant; because if the principles suggested were adhered to, and when adhered to noticed, we should never have witnessed the sad spectacle of an etymology being lost with the man who invented it.

NOTES.

We are in receipt of the first number of a new periodical, *Die Religion des Geistes*, edited by Dr. Eugen Heinrich Schmitt. It represents a new religious movement, which, in a postscript on page 32, it declares to be the same as the Religion of Science, represented in *The Open Court* and *The Monist*. The present number of the new periodical contains the following articles: (1) "What the Religion of Spirit Proposes?"; (2) "Our Programme"; (3) "Why Is a Religious Movement a Necessity? A Word Addressed to the Societies for Ethical Culture"; (4) "To the Freemasons"; (5) "The Religious Movement of the Present Time." The second article, "Our Programme," begins as follows: "We represent the freest, the most radical, and at the same time the most positive and deeply religious thought. Our programme is independence of all authoritative creed, and at the same time a spiritualisation of the holy symbols of all religions. We have come not to destroy but to fulfil." The editor rejects the proposition to teach ethical culture without a religious basis, declaring that man is a unity and cannot be split in twain; that our world-conception is too intimately connected with our moral ideals; that a separation of religion and ethics would tend to veil the errors of our time, which ought to be exposed. The style of the various articles is rhetorical, rather than explanatory, and we cannot find a calm statement of the aims of the Religion of Spirit. Several names of the promoters and allies of the movement (e. g. Hübbe-Schleiden, Editor of the *Sphinx*) seem to indicate a spiritualistic tendency, but the first number of the new periodical contains no traces of it. The periodical is published at Leipsic, Johannisgasse 4, by Alfred Janssen. Dr. Schmitt's address is I Festung, Herrengasse 58, Budapest, Hungary.

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THE METAPHYSICS OF HERBERT SPENCER.

BY THOS. C. LAWS.

The school of thought which regarded philosophy as implying merely the *a priori* study of mental phenomena is now practically dead, and in its place has arisen one which treats metaphysics but as a side issue in speculative psychology, and psychical phenomena as but a portion of those with which it is the duty of philosophy to concern itself. It is to the increasing progress of experimental science that this change in philosophy is due, and to the new school belongs one of the greatest masters in modern thought, Mr. Herbert Spencer.

The matters placed under the head of metaphysics are capable of classifications as numerous as the writers upon the subject. This is, indeed, inevitable in so debatable a question. From first datum to final conclusion we are in a world of controversy. However, for the sake of this essay, we may distinguish three discussions—mind, externality, and a theory of the universe.

The first question, then, which we ask ourselves is, "What is Mind?" Mr. Spencer's answer is clear and definite. Attacking the sceptical theory of Hume, he asks, "how can that thinker, who has decomposed his consciousness into impressions and ideas, explain the fact that he considers them as *his* impressions and ideas? Or, once more, if, as he must, he admits that he has an impression of his personal existence, what warrant can he show for rejecting this impression as unreal, and accepting his other impressions as real? Unless he can give satisfactory answers to these queries, which he cannot, he must abandon his conclusions, and must admit the reality of the individual mind."[1] Elsewhere, he speaks of mind as "the underlying something" of which distinguishable portions or mental phenomena are formed, or of which they are modifications.[2] To this it may be replied that, as Mr. Spencer himself admits, of this ultimate mind we have no knowledge whatever. We are acquainted with mental phenomena, we can study them, analyse them, recombine them, but throughout all these processes we come across no evidence of an underlying something. Here is a society—a public company, say, or a nation. Corporations, as Sir Edward Coke said, have no souls to save. Take away all the units forming that society, and what is left? Is there an "underlying something"? And yet every individual is conscious that the society of which he is part exists; every society is capable of acting as one and united. The English nation has a tangible existence, and will have, so long as Englishmen exist, but if we scatter all Englishmen to the winds, no English nation will remain. So with mind: an individual mind exists so long as there exist those "impressions and ideas" (to use Hume's phraseology), which constitute it. But, it may be argued, these impressions and ideas are constantly changed. The same is true of the particles which form the substance of the body, yet we regard it, from the cradle to the tomb, as one individual body. The English nation has existed as such since the days of Egfrid and Ini, or at least since the final union of the Saxon peoples was made by Egbert in the ninth century. During those centuries, however, every unit has changed innumerable times, and the composition and condition of the nation undergone a complete transformation. So the individual mind remains intact, notwithstanding the manifold changes which take place in its component "impressions and ideas." How, Mr. Spencer asks, do we recognise these impressions as ours? What warrant have we for regarding them as real, while we set aside an "underlying something" as unreal? How do we recognise the consciousness, continuity, or personality, which constitutes a mental being?

During the course of evolution, ancestral, prenatal, and personal, there has been evolved a sense of discrimination between subjective and objective existence, whereby we have come to regard all impressions affecting our physical organisation as ours. The question of personality is bound up with that of the relation between consciousness and body. No writer has done more than Mr. Spencer to prove to us that consciousness is as much a function of the body as respiration or digestion, or any physical process whatsoever. Not only is greater complexity of mentality associated with greater complexity of cerebral and nervous stucture and organisation, but during the pro-

1 *First Principles*, § 20.

2 *Principles of Psychology*, § 58.

cess of ideation, chemical and physical action goes on in the substance of the brain. Vigorous mental action leaves the body as fatigued as vigorous physical exertion; during its process certain alkaline phosphates are largely produced and afterwards eliminated from the system; a greater rush of blood takes place to the brain, resulting, when the pressure has been considerable or prolonged, in those disorders frequent in men and women of extraordinary mental powers and activity, such as vertigo and partial congestion of the cerebral blood-vessels. Accidents to the body often impair consciousness, sometimes only temporarily, but frequently inflicting permanent injury to the thinking faculties. Similarly, we have the connexion between delirium and bodily fevers set up by local irritations or loss of blood; insensibility, caused by a blow; loss of speech (aphasia), due to disease of a nerve in the head; loss of memory, illusions, insanity, and other morbid conditions of the mind, caused by disease and physical injuries. We may note, too, mental and moral diseases arising from congenital causes—murder, kleptomania, dipsomania, and epilepsy—and opinions caused and modified by climate, temper, health, and social surroundings. Finally, we may remark the gradual development of mind as the child grows, its maturity in middle age, and in general its decline as physical energies decline, sometimes merging into dotage and senile imbecility, until dissolution of the body brings the mental functions to a close. But underlying all these special facts is the general one that the ultimate source of ideas is experience, and that we can have no experience save through the organs of sense and their adjuncts, the nerves. From which two conclusions are irresistible. First, that psychology is not in itself a general concrete science, but merely a special branch of one,—biology, the science of life in all its forms. The second and more important conclusion is that no "underlying something," no independent mind, exists, but that the *sensorium* (to use an expression of George Henry Lewes's), of which consciousness is a function, is coextensive with the entire body, from cerebrum to the tiniest and most distant nerve-filament. Hence it is that we regard "impressions and ideas" experienced by us as ours, because they are part and parcel of our physical organisation, just as are digestion and the circulation of the blood. No man suffering from dyspepsia, even though he be the most extreme idealist, ever doubts that it is *his* stomach which is deranged. Equally, no man experiencing a certain sensation, receiving a certain impression, cognising a certain idea, doubts for one moment that the sensation, impression, and idea are *his*.

It is here that the modern critical psychology parts company entirely with that of Hume, and with its physical basis runs little or no risk of merging into idealism, as did his.

The theory here advanced is, nevertheless, simply an extension of that of Berkeley, who disputed the existence of any "material substratum" or "matter" behind the phenomena which are observable, declaring of these phenomena that "their *esse* is *percipi*, nor is it possible that they should have any existence out of the minds or thinking things which perceive them,"[1] stripped of what is unphilosophical therein and brought up to the discoveries of modern psychology.

What is the bearing of this theory upon the question of externality? "I do not argue," says Berkeley, "against the existence of any one thing that we can apprehend, either by sense or reflexion. That the things I see with mine eyes and touch with my hands do exist, really exist, I make not the least question. The only thing whose existence we deny, is that which philosophers call matter or corporeal substance. And in doing this no harm is done to the rest of mankind, who, I dare say, will never miss it . . . . while philosophers may possibly find that they have lost a great handle for trifling and disputation."[2] And elsewhere he remarks with truth, that "if we thoroughly examine this tenet" of a material substratum, we shall find it "at bottom to depend on the doctrine of abstract ideas."[3] Abstraction is one of the most complex of logical processes, consisting in the creation out of particular facts of general or abstract ideas, which shall include all those characters wherein these facts agree, while neglecting all those wherein they differ. Man is an abstract idea; so, too, are color, the press, and religion. For there exists in nature no abstract man: we are acquainted only with concrete, individual men. We know colors, such as red and green, but create color in the abstract; we acquaint ourselves with newspapers and their staffs; there exists a variety of religions, of religious doctrines and ceremonials, and of religious men and women, but no religion apart from these. The same is true of the sciences, so that the so-called controversy between science and religion is meaningless, except as an expression of conflict between certain scientific facts and certain theological dogmas, or between the opinions of scientific observers and those of theologians. In the same manner, the idea of externality is an abstraction: we are conversant with a multitude of phenomena in so far as they impress themselves upon our senses, wherefrom we infer an existence external to ourselves. We may justify realism by many arguments, the setting forth of which occupies a considerable portion of Mr. Spencer's "Principles of Psychology." Let it here suffice

[1] Berkeley, *Principles of Human Knowledge*, § 3.
[2] *Ibid.*, § 35.
[3] *Ibid.*, § 5.

to remark that even the idealist philosopher himself habitually thinks, feels, speaks, and acts as though an external world exists; that our organisation, indeed, is such that we cannot but imply its existence in every act of life; and that the minutest examination proves only what a cursory one makes us aware of, that there exist facts over which we have some sort of control, and which are evidently ours, and that there exist others over which we have no control whatever, and which are evidently of an origin beyond our consciousness.[1] But an idea, as Berkeley says, "can be like nothing but an idea";[2] a suggestion which Mr. Spencer has worked up into his theory of Transfigured Realism.[3] There exist an internal world and an external world acting constantly upon one another, and, although the impressions conveyed to our minds of the external world of fact, through the internal world of sense, cannot be proved to be identical with the facts of that external world, yet they have acquired, through the evolution of sensibility, a relation to those facts which is constant and reliable. We may call it conventionality or habit, if we will, still the relation cannot be denied. It is here that Mr. Spencer's philosophy is immeasurably superior to that of Berkeley, who appears to drift from a critical statement of psychological fact into a visionary idealism which denies the existence of everything outside the perceiving mind, and which, as Hume said of it later, admitted of no answer, but produced no conviction.

But, if Mr. Spencer be thus scientifically right in his theory of externality, he is, perhaps, unscientifically wrong in that of the unknowable. Nor is he always consistent in his use of that term. In the first part of "First Principles," the unknowable would appear to be simply that which could never come within human ken. But later he narrows his use of the term, until finally we are told by a writer who speaks of the idea of a first cause as unthinkable, to regard this unknowable in terms of the persistence of force as an "absolute force of which we are indefinitely conscious," a "cause which transcends our knowledge and conception," and an "unconditioned reality, without beginning or end."[4]

Mr. Spencer's argument may be briefly put. Locke urged, in his celebrated Essay, the existence of impassable barriers against human knowledge, trusting that when we had learned "how far the understanding can extend its view, how far it has faculties to attain certainty, and in what cases it can only judge and guess," such knowledge would be "of use to prevail with the busy mind of man to be more cautious in meddling with things exceeding its comprehension; to stop when it is at the utmost extent of its tether; and to sit down in quiet ignorance of those things, which, upon examination, are found to be beyond the reach of our capacities," for "men may find matter sufficient to busy their hands with variety, delight, and satisfaction, if they will not boldly quarrel with their own constitution, and throw away the blessings their hands are filled with, because they are not big enough to grasp everything."[1] Criticising the various theories which have been put forward regarding the origin and constitution of the universe, Mr. Spencer finds one and all to be inconsistent, and contradictory, and incapable of standing the strain of criticism, and concludes that in our researches into them we are but buffeted between opposite absurdities. He finds that ultimately matter and force, space and time are in themselves alike inscrutable, and that we can only know their phenomena. Had he stopped there and maintained that these phenomena alone have an objective existence, and that matter, force, space, and time are abstract ideas, having no existence outside the human mind, we should not here have found it necessary to criticise him. But, instead, he maintains their objective reality, and asserts that they are modes of manifestation of an unknowable existence. The fallacy of the theory lies in its assumption of the objectivity of knowledge. Knowledge is a sum-total of experiences, received through the senses, and, as such, can have only subjective existence. In other words, there may be external facts, but knowledge of them can only be within the thinking mind. Hence knowable and unknowable are no more entities than are those human creations, the "laws of nature." There are, so far as we are aware, no laws *in* nature—there exist phenomena, whose observed order and sequence is, for convenience sake, framed into an abstract or general law, by which new facts are observed, tested, or explained. To the savage, the researches of our laboratories and our observatories are unknowable: his mind is so constituted that he could not comprehend them, if explained to him. Looking at the universe in its relation to human consciousness, we may distinguish the *known* from the *unknown*, seeking ever to widen the domain of the former at the expense of the latter. As we have already said, what Kant calls the "pure forms of sensibility, elements of knowledge *a priori*,"[2] and what Mr. Spencer speaks of as "ultimate scientific ideas," have no existence outside the human mind. We distinguish facts into material or dynamic, temporal or spatial, according to their prevailing charac-

[1] This last was admitted by Berkeley, who distinguished between the ideas of *sense* and those of *imagination*, declaring the former to have a "steadiness, order, and coherence," which is wanting in the latter, and to be ideas "excited by the will of another and more powerful spirit." (See *Principles*, §§ 28–33.)

[2] *Ibid.*, § 8.

[3] Spencer, *Principles of Psychology*, §§ 471–474.

[4] *First Principles*, § 62.

[1] Locke, *Essay on the Human Understanding*, §§ 4.

[2] Kant, *Kritik der reinen Vernunft*, (Leipsic, Reclam,) p. 50

ters. But matter in itself, inert and apart from its phenomena, is a logical impossibility. It must exist in time and space; if in motion, must be impelled by one force; if immobile, must be kept rigidly in position by another. Space and time, without something to exist therein, and force, without something to act upon, are alike contradictions in terms. In nature there exists no pure matter, no pure force, no abstract time and space; these are general notions framed by man to synthesise his conception of the universe in which he lives. And so long as he bears in mind that they are but ideas of his and uses them as such for observation and research, all will be well. The evil arises, when, mistaking his words for realities, he dogmatises upon them, builds up systems of speculation upon them, and raises aloft metaphysical and theological structures, which, when the winds of criticism do howl and the billows of logic do break themselves thereupon, shall fall with mighty crash, for they were builded upon the sands of obscurantism and ambiguity. "Words," let us say with Hobbes, "are wise men's counters, they do but reckon by them; but they are the money of fools, that value them by the authority of an Aristotle, a Cicero, or a Thomas, or any other doctor whatever, if but a man."[1] The fundamental necessity to all philosophic discussion is definition. If we desire to be of those who speak "with many words making nothing understood," we shall throw definition to the dogs and exactity to the winds, using our words with little respect to meaning. But he who desires to make others profit by that which he tells, must first learn so to train his language that it represents all his thoughts without doubt or ambiguity, nor leaves ready room for sophistry. Knowledge is power, but unless in the exercise of that power one learns adequately to define one's words, to maintain those definitions when made, and to swerve therefrom neither to the right hand nor to the left, one shall find one's knowledge a power not for good but for evil.

BERKELEY'S POSITIVISM.

Bishop Berkeley is frequently misunderstood not only by the unphilosophical public, but also by philosophers, and among the latter must be reckoned his own disciples and followers, not less than his adversaries. This great Irish philosopher was much more radical than could be expected of a bishop, and he is much more in accord with positivism than would be generally conceded to a thorough idealist who denies the existence of any material substratum called matter. Indeed we should say that apart from a difference of terminology and of our methods of attacking the various problems—our own view of monistic positivism is in close agreement with Berkeley's idealism. We do not intend here to expound Berkeley's philosophy or enter into a critical examination of it, but shall confine ourselves to one point only, concerning which Mr. Thomas C. Laws, in his article on "The Metaphysics of Herbert Spencer, says:

> "It is here that Mr. Spencer's philosophy is immeasurably superior to that of Berkeley, who appears to drift from a critical statement of psychological fact into a visionary idealism which denied the existence of everything outside the perceiving mind."

There are quite a number of prominent authors like the French materialist Baron D'Holbach and the English poet Lord Byron, who publicly confessed that they could not refute Berkeley, however unthinkable his idealism appeared to them. There must be some powerful truth in a statement which cannot be refuted. Is Berkeley's system perhaps a consistent description of the world in terms commonly used in a different sense? This may be one reason, but there is another and weightier one which makes his views unacceptable even to those who cannot answer his arguments; it is the fact that he skilfully trips the unconscious metaphysicism of materialism as well as spiritualism; and materialism is a lingering chain, which among many professed dualists and monists is still the most deeply seated preconception of our time.

Concerning the passage quoted from Mr. Laws, we believe that Berkeley's view is not correctly represented. Berkeley denies the existence of a hypostatisation like matter, but he does not deny the existence of everything outside the perceiving mind. Does not Berkeley speak of God as that something (Berkeley awkwardly calls it "spirit") which excites our sense-impressions? What Berkeley calls God, we call reality, and in so far as in reality the All of facts in their oneness are the ultimate authority of moral conduct, we should make no objection to the Bishop's terminology. Berkeley does not deny the reality of things. Here he differs from many of his misguided disciples and followers, who imagine they become deep philosophers by denying the reality of things. Berkeley is as much a realist as any unsophisticated farm-laborer can be, who, working with a shovel, trusts that the soil he digs is an actuality and no mere illusion. Berkeley (as quoted by Mr. Laws) says: "That the things I see with my eyes and touch with my hands do exist, really exist, I make not the least question." What, then, does Berkeley deny, to deserve the name idealist? Berkeley denies the existence of a metaphysical substratum called matter; he denies what Professor Huxley and other modern physiologists call the physical basis of mind; he denies that matter alone is real, and that mind is only a property of matter; in other words, he denies the metaphysical existence of matter and regards matter as a mere abstract term.

[1] Hobbes, *Leviathan*, c. iv.

Mr. Laws regards psychology as a special branch of biology and says of "modern critical psychology" that it

"With its physical basis runs little or no risk of merging into idealism."

The mere term "physical basis of mind" implies a metaphysical assumption; it implies the theory, of late so lucidly set forth by Mr. Lester F. Ward in the January number of *The Monist*, that matter is real, while mind is merely a property of matter, a view which we reject as a pseudo-monism, because it unifies the universe by means of a one-sided system; it is a single-concept theory, not a truly unitary system; It is henism, not monism.[1]

If we compare the formal categories of our mind to a system of drawers or pigeon-holes in which all our experiences are classified and stored away in good order, so as to be handy when wanted, the henist feeling the necessity of bringing unity into his thought-material, is like a man who puts all into one great box. The spiritualist subsumes everything under spirit, as either spirit itself, or a property of spirit; the materialist subsumes everything under matter, as either matter itself, or a property of matter; the dynamist or mechanicalist subsumes everything under energy as a mode of motion or the effect of a motion. True monism must always remain conscious of the method by which we have constructed our abstract notions; it must not forget that they are thought-symbols to which some features of reality correspond, but that neither matter, nor spirit, nor energy represent independent entities or things in themselves which can be assumed to be the substratum of reality and the metaphysical basis of our experience.

We do not deny that it is sometimes *convenient* in special branches of science to regard matter as thing, and color as a quality of matter. But in doing so, we must remain conscious of the poetical licence which we indulge in. This method of viewing things serves a temporary purpose and must be dropped with the special occasion. If we retain the fiction of matter being the true reality and not merely an abstract representing a quality or a number of qualities abstracted from our experiences, we shall soon become puzzled with the children of our own thought, and, like Mr. Spencer, become victims of agnosticism, standing overawed with wonder before the simplest generalisations, as if they contained the mysteries of being in a concentrated form. We need not repeat here how Spencer, in his "First Principles," obscures all issues so as to render the ideas matter, motion, and mind self-contradictory and incomprehensible, thus producing mysteries where there are none.[1] Suffice it to say that any one who either unconsciously or consciously hypostatises his abstract notions will sooner or later arrive at mysticism or agnosticism, that is to say, he will sooner or later be so bewildered with the confusion of his own thought as to declare: "Philosophy is too much for me, I do not understand its problems, and as I cannot solve them, no one can."

Mr. Laws, we are glad to notice, not only rejects Mr. Spencer's notion of the unknowable, but also accepts the theory of abstraction. He says:

"Abstraction is one of the most complex of logical processes, consisting in the creation out of particular facts of general or abstract ideas, which shall include all those characters wherein these facts agree, while neglecting all those wherein they differ. Man is an abstract idea; so, too, are color, the press, and religion."

But accepting this theory of abstraction, is it not inconsistent to speak of consciousness as a function of the body, and mind as a product of the brain; to regard impressions and ideas as part and parcel of our physical (!) organisation? We do not deny, as we said above, that occasions may arise in which it might be convenient to speak of matter and its properties, or even to represent the atoms of the brain as the true reality and our thoughts as mere functions of the brain. But this view is unphilosophical. Such a licence is temporarily allowable when we compare two qualities of which the one is relatively stable the other relatively transient. For instance, weight and color. In the case of mind and brain, however, this mode of speech is not admissible, except when we take a purely physiological aspect and inquire into the brain mechanism of thought, excluding feelings, ideas, and the meanings of ideas. By mind, however, we understand the interaction of ideas and the meaning of ideas. When speaking of ideas, we should not forget that thinking is a mental process, which, if it were visible in a transparent brain, would appear to an outside observer as a brain-motion. But the relatively constant factor in thinking is the idea thought and not the material atoms of the brain which vibrate while we think. The idea remains the same, while the brain-substance is constantly renewed; our conceptions remain constant in the flux of physiological changes of matter. Thus, as soon as we discuss psychological problems we should rather be justified in regarding mind as the reality and brain action as one of its qualities, than the reverse. We do not say that psychologists must present mental problems in this form, but they can provisionally assume this view as much as a physicist may speak of bodies and their properties.

In case psychologists adopt the henism of regarding matter as the real thing and mind as a property

[1] See *The Monist*, Vol. IV, No. 2, "A Monistic Theory of Mind," by Lester F. Ward, and the editorial, "Monism and Henism." Compare also Prof. C. Lloyd Morgan's article in the present number of *The Monist* (Vol. IV, No. 3), pp. 321–332, "Three Aspects of Monism."

[1] See *The Open Court*, No. 212.

only of the brain-cells, they commit themselves to the absurdity of regarding the secretions of the nervous substance which after having done the thinking are thrown out in the natural way, as man's true self. In thus identifying ourselves with the material that passes through our body, we become blind to the spiritual nature of our being and we shall look upon death as a finality. When an idea has been thought, the particles that did the thinking will soon be replaced by other substance, and after a brief time be wiped out of the brain, yet the idea will remain in our mind. In the same way, when we die our remains will be buried, but not we, not our souls, not our true selves, which are of a spiritual nature. Our souls can be preserved. Our ideas can be thought again, and our aspirations can continue. The temple in which they are enshrined will be broken, but the temple will be built up again, and our spiritual being will be resurrected to new life.

True monism rejects all hypostatisation, materialistic, spiritualistic, or mechanistic. By bearing in mind that abstract notions are part-representations of reality, describing sections, features or qualities of existence, we do not fall a prey to self-mystification, and see our way clearly before us. We may differ as to the propriety of terms and their definitions, such as Reason, God, Religion, and others, but we have definite issues and practical problems. The road of scientific and philosophical investigation is no longer blocked by insolvable mysteries, unknowables or other metaphysical hobgoblins. We begin with the facts given in experience and are no longer in need of assumptions, axioms, or hypothetical principles as building material for our world-conception. Thus philosophy has become a science, the statements of which are no longer a matter of partisan position or dependent upon postulates; they can be decided by investigation and subjected to the test of being in agreement or disagreement with facts.

P. C.

THE NEW ERA.

BY ATHERTON BLIGHT.

A book of unusual interest and importance in the line of religious thought has appeared recently. I refer to Prof. Edward Caird's Gifford lectures, "The Evolution of Religion." The distinguished author and thinker has only recently succeeded the great Greek scholar, the late Professor Jowett, as Master of Balliol. How well I remember hailing with delight the publication of "Essays and Reviews," in 1860, and how those of us interested in such subjects were encouraged by the now famous dictum of Jowett, "Interpret the Bible as you would any other book." And now, after a generation of men have left the stage and we are nearing the close of the nineteenth century, the new Master of Balliol declares that what Christ conceived by a divine intuition, what his followers and the Church partly developed, partly misunderstood, this is now the proper object of a religious philosophy.

In an interesting notice of this valuable work in the *New York Evening Post*, the author says: "The result of Professor Caird's thought is thus a revised Christianity, from which the traditional sort of supernaturalism has indeed been banished. The highly unconventional character of the theology thus outlined is obvious. The Gospel history is in consequence interpreted without recourse to miracle. The greater part of traditional Church dogma appears as non-essential opinion having only historical interest. Human immortality is apparently, in Professor Caird's mind, at present a problem whose philosophical answer is decidedly incomplete, if not altogether problematic."

The point, then, which I wish to make clear is that Professor Caird, like Dr. Momerie and other profound thinkers, have, with *The Open Court*, utterly abandoned the supernaturalism of the churches. Even the Bishop of London in a recent address on "Faith" said that our faith could not rest entirely on externals, including miracles, but we must largely rely upon the faith of the soul in the eternal supremacy of holiness, justice, and goodness. He said, and they are very remarkable words proceeding from such a source, "that the recognition of God is in reality the recognition of the moral law in action." Is not this the very essence of the teaching of *The Open Court*?

I would like to call your attention to another book, not so weighty and philosophical as the two volumes of Professor Caird, but nevertheless a very interesting and suggestive little work, and one which should be read carefully by every one interested in the great cause *The Open Court* has at heart. I have reference to "The Religion of a Literary Man," by Richard Le Gallienne. Allow me to give you two quotations, which fairly give the keynote of the little book: "The most vital point at which religious controversy formerly ever arrived was the inspiration of the Bible. But that difficulty has passed; we now either accept or reject the inspiration of a hundred Bibles, and the question is no longer of the inspiration of one book, but of the inspiration of the human soul, which has dictated all books."

This is my second quotation: "To speak of natural religious senses will seem redundant to any one familiarised with the obvious idea that everything that exists, religion included, is 'natural,' that

> "'Nature is made better by no mean,
> But Nature makes that mean: over that art
> Which you say adds to Nature, is an art
> That Nature makes.'

"But one has been so brought up to regard religion as something superimposed upon our human nature, rather than as something blossoming out of it, that the habit clings."

Professor Dowden in his "Studies in Literature," published, I think, in the seventies, assumes that such views as M. Le Gallienne's prevail generally among educated people; and Mr. Stedman in his charming books, the "Victorian Poets" and "Poets of America," seems to take very much the same position. But in Mr. Stedman's important work on "The Nature and Elements of Poetry" he says in a very just and beautiful eulogy of the "Book of Common Prayer": "The sincere agnostic must be content with his not inglorious isolation; he must barter the rapture and beauty and hope of such a liturgy for *his* faith in something different, something compensatory, perchance a future and still more worldwide brotherhood of men."

Did Mr. Stedman never read Mr. Frederick Harrison's "Apology for His Faith" in the *Fortnightly Review*? Therein that most interesting essayist shows that the advanced thinker always keeps touch with the past. The greater includes the less. We have not bartered the rapture and beauty and hope of the liturgy. Whatever is *divine* in it, or, in Goethe's phrase, ministers to our highest development, we retain as a possession forever. The scholar with Emerson "sails with God the seas," and you cannot bring him too good news from any quarter. To return again to Professor Caird "the idea of development teaches us to distinguish the one spiritual principle which is continually working in man's life, from

the changing forms through which it passes in the course of its history; . . . . to do justice to the past without enslaving the present, and to give freedom to the thought of the present without forgetting that it in its turn must be criticised and transcended by the widening consciousness of the future."

By far the most trenchant criticism of the kind we have been considering is that of Mr. Leslie Stephen in his "Agnostic's Apology and Other Essays." In the course of one of his chapters he remarks that we cannot change our opinions as we would take jewels out of a box and replace them with others. Change of view—of belief is a *growth*, a *process* of the mind. Edmund Schérer the distinguished French essayist, said it took him fifteen years of study and reflexion before he became completely emancipated from the old clerical method of assuming a supernatural and then proceeding to build an elaborate theology. We must have a reason for the faith that is in us. It is easy now, as Renan says, to proclaim with the gamin in the street that Christ never rose from the dead; but to show the steps of reasoning whereby one arrives at that conclusion is a very different thing. We see now very clearly that the Bible is a purely *human* production and being written at the time it was, in a perfectly uncritical age and in an oriental country, it must perforce of circumstances have contained all kinds of marvellous stories, the bodily resurrection of Jesus among the rest. Goethe said there is nothing worth thinking but it has been thought before; *we must only try to think it again.* "What Goethe means," says Mr. Bailey Saunders in his interesting "Maxims and Reflexions of Goethe," "is that we shall do best to find out the truth of all things for ourselves, for on one side truth is individual; and that we shall be happy if our individual truth is also universal, or accords with the wisest thought of the past."

"The spring of a new era is in the air—an era of faith," exclaims M. Le Gallienne, a great deal of the old faith of the "ages of faith," at least in the formulas, symbols, and expressions now long outworn, is, as Renan shows, impossible to the modern critical, emancipated mind. M. Le Gallienne and many others are almost daily giving us valuable hints for the faith of the future.

> "Oh! bells of San Blas, in vain
> Ye call back the past again,
> The past is deaf to your prayer—
> Out of the shadows of night
> The world rolls into light,
> 'Tis daybreak everywhere."

CURRENT TOPICS.

The Chicago election is over, and it is gratifying to read in the morning papers that it "passed off quietly." There were only about a hundred fights, all told, with a proper proportion of broken heads to each. A goodly number of shots were fired, but as the gunners were full of beer the bullets went wild. Only two or three men were shot, and even these are "expected to recover." In the First Ward it was bullets against ballots, and the bullets won. Much patriotic feeling was exhibited in this ward among the partisans of Mr. Coughlin and Mr. Skakel, the opposing candidates for the office of alderman, and they turned the election into a Donnybrook Fair. When the polls closed it was found that Mr. Coughlin was elected, and that Mr. Skakel's men were most of them in the hospital, or at their various places of residence under the doctor's care. A large number of colored men live in the First Ward, and they showed as much aptitude for American citizenship as the white men. Two of them, "Slicky Sam" Phillips and "Toots" Marshall fought a duel in the crowded thoroughfare at the corner of Taylor and State Streets, but, unfortunately, although they "emptied their revolvers," only one of them was wounded, and this was explained as due more to accident than aim, because his feet were "unusually large," and one of them stopped a bullet. One of Mr. Skakel's band-wagons was filled with hireling musicians, playing "Marching through Georgia," and they had the temerity to blow their bugles in front of "Hinky Dink's" saloon, the headquarters of the Coughlin party. As might have been expected, they were welcomed with a volley from the revolvers of the Coughlin men. The musicians "ducked," and the bullets passing over them went into McCoy's Hotel, but merely breaking the windows and the plaster on the inside walls. No blame attaches to the Coughlin men for this, because it is conceded by public sentiment that the quality of the music justified the shooting. This election was merely for aldermen and township officers; it did not include within its fortunes the glory and emoluments of national, state, or county candidates, and that's the reason it "passed off quietly."

* * *

Anxious to see how the civil war in South Carolina was getting along, I glanced over the dispatches from Columbia dated April 3, and I found at the beginning of them these rather startling headlines: "Tillman makes an incendiary speech at Columbia." Knowing that the person spoken of as "Tillman" was the Governor of South Carolina, I wondered how a magistrate of such high rank and royalty could make an incendiary speech, for I had supposed that only swarthy laborers, rude rebellious men of low degree, or "pale-browed enthusiasts," impatient of social wrongs, could commit such a crime as that. Surely the order and arrangement of affairs in this conservative world must be turning upside down when governors compete with labor agitators in the business of setting politics on fire by means of incendiary speeches. Sedition may become fashionable yet, although there is none of it in the oratory of Governor Tillman, so far as I can see. Incendiary speeches are usually directed against the law, but those of Governor Tillman are passionate appeals in favor of the law, and they express a determination to suppress the revolutionary factions and the mutinous militia that seek to overthrow the law. The revolt of the militia is ominous, because it throws another element of uncertainty into the social problem, for if the militia is not to be relied on, what is the use of our armories and our Gatling guns?

* * *

Whatever we may think about the laws of South Carolina, or the policy of Governor Tillman, we must admit that he is neither a time-server nor a coward. There is manly stuff in this governor, and a good supply of that civic nerve that all magistrates ought to have. "I have sworn to enforce the laws," he said; "the dispensary law is on the statute books, and I will exert all the powers of my office to see that the law is obeyed." We have so many invertebrate politicians in power now, supple statesmen who, undulating gracefully as worms, can wriggle up and down through all the rounds of a ladder, that a chief magistrate, who in the midst of mutiny and civil turmoil, with assassination promised him, can stand erect on his feet without breaking, looks like one of the old heroic statues of the Greeks. The very sight of these in their majestic strength and symmetry makes all of us a little stronger than we might otherwise be. Governor Tillman makes no pretensions to oratory or scholarship, and perhaps the critics may be able to show some rhetorical mistakes in the poise and balance of his words, but there are parts of the speech he made at Columbia on Monday that remind us of the oration of Cicero when he told the Senate of the plot that had been formed for his assassination Referring to a similar plot against himself, Governor Tillman said: "One man told Mr. Yelldell here that he came from Edgefield, my own county, with a shotgun to kill me Friday night. My life is not worth much to me, but it is worth as much to me as the life of any other man is to him, but rather than desert my post, where you have placed me, I would have stood there until I fell dead. The men who are threatening to fire this powder magazine are the bar-room element, and those who are urging them on are the rulers of the old oligarchy. This riot is a political frenzy; I shall not swerve an inch from the stand that I have taken as the

people's governor. You may imagine from this that I am going to aggravate the trouble, but I am simply going to uphold the law." This rebuke to the antediluvian aristocracy, this defiance of the conspirators, this elevation of duty above life itself, all intensified by a renewal of his oath to enforce the law, give to the speech of Governor Tillman a spirit and dignity not surpassed in the famous oration against Catiline.

* * *

A very fine distinction, one of the finest in the moral code, was drawn the other day by the striking workmen who had been employed at Crane's factory in Chicago. They were holding a meeting at Bricklayers' Hall, when a donation amounting to twenty dollars was received from Mr. Jacob Horn, the candidate for West town assessor, and a discussion immediately arose as to the propriety of accepting money from a candidate. According to the report in the paper, as to the truth of which, however, I am rather sceptical, it was decided to return the money. At the same meeting, a letter was read from A. F. Hoffman, the Democratic candidate for West Town collector, in which he "donated" twenty kegs of beer to be used at the ball which the strikers will give at the Second Regiment Armory. The beer was accepted with enthusiastic cheers. The moral difference between a gift of money and a gift of beer as a bid for votes is finer than a spider's thread, and yet there are consciences that can walk securely on that flimsy string. Old Stillman Strong of Marbletown used to say when tempted at election time, "A soul I have above lucre, money cannot buy me, but whiskey can." There are many men who have moral constitutions just like that of Stillman Strong. When Gen. Albert Sidney Johnstone was about starting in command of the Utah expedition, an officer came to him and asked permission to take a box of books, but the General answered, "No, there are not wagons enough to carry the baggage absolutely necessary for the expedition." Then the officer asked if he might carry a barrel of whiskey along, and the General replied, "Certainly! Certainly! Anything in reason!"

* * *

Two or three weeks ago, I predicted that the army of General Coxey would straggle out of existence without ever coming within sight of Pittsburg. I was wrong; and hereafter I shall prophesy after the fact, for in spite of some desertions, the army increased a little every day, and it marched into Pittsburg nearly three hundred strong. Not only that, but it was at Pittsburg and Alleghany that the army became of any serious interest or importance, and this through the illegal and arbitrary measures adopted by the police. Before the police powers interfered with Coxey's men in a harsh despotic way, the army was merely amusing, a grotesque imitation of the tatterdemallion company recruited by Sir John Falstaff; but after that interference, it represented liberty, and it commanded sympathy. The imprisonment of the army in the corral at Alleghany with a police deadline drawn around it, was an assault upon the freedom of American citizens to travel from one part of the country to another either on foot or on the excursion train. The arrest, imprisonment, and punishment by fine of citizens guilty of no crime was an unwarranted act of persecution done by the magistrates and police in anarchistic defiance of the Constitution of the United States and of the Constitution of Pennsylvania. It was drawing another deadline between the classes and the masses, between the rich and the poor; and it was gathering up wrath for the day of wrath. It was altogether gratuitous and unnecessary, a wanton exercise of bludgeon power, adding another contribution to that threatening mass of discontent which is already too large for the peace and safety of the republic. It gave dramatic dignity to a spectacle which previously was nothing but burlesque.

M. M. Trumbull.

NOTES.

Dr. Jenkin Lloyd Jones takes issue with Dr. Harper for making a distinction between the office of the preacher and the teacher. Dr. Harper, who has given offence to his Baptist brethren for presenting in his lectures some of the results of modern Bible criticism says: "If I were a preacher and were preaching about these stories I would minimise the human element and magnify the divine element, but as a teacher I must present both sides. I am presenting facts." Dr. Jones understands Dr. Harper to say that "the preacher's vocation is less than that of a truth teller," and that it is his business (in the words of Jeremiah) to "bend his tongue as if it were a bow for falsehood." He takes the proposition of "minimising" and "magnifying" in the sense of disfiguring or misrepresenting. And truly Dr. Jones is right in holding that any falsehood is to be denounced, be it in the preacher or in the teacher. All that Dr. Jones says in condemnation of equivocalness is true, and we agree with him that the preacher's first allegiance not less than the teacher's is to truth, and all other considerations of tact, propriety, regard for the sentiments of others and so forth, are to be subordinated to this supreme law of moral conduct. But we must add, Is it fair to understand Professor Harper to mean that he expects the preacher to hide the truth? Is it charitable to put this interpretation upon his utterance? We have not seen the quoted sentence in its context, but are confident that Dr. Harper uses the word "magnify" in the sense of "emphasise." It is not the office of the clergyman to preach on Biblical criticism; the office of the clergyman is to preach morality. By God we understand the authority of moral conduct, and "divine" is according to common usage all that is elevating and sanctifying. In this sense President Harper is right when he says that the preacher must make great the divine, while a teacher has simply to lay down facts. The preacher's duty is higher; he has to teach the truth and utilise it for practical life. The facts which he presents must serve a purpose and to present facts which have no bearing upon practical morality is out of place in the pulpit. We expect that President Harper is still attached to the old dogmatism of his church and has probably other conceptions than we of what God and Divine are; but that need not concern us here. The main thing is that it is not probable, nay, impossible, that he meant what he is criticised for.

A note of correction seems necessary concerning General Trumbull's statement in No. 344 of *The Open Court* (article "Kossuth") of General Görgei's "desertion." The word "desertion" does not imply treachery, but suggests it. Görgei surrendered to the Russians because further resistance was absolutely hopeless, and in the honest belief that better terms would be thus obtained, not from a treacherous desertion of the Hungarian cause.

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JUBILATE.

A SERMON DELIVERED ON SUNDAY, APRIL 15, AT UNITY CHURCH, CHICAGO, ILL.

The name of this Sunday is *Jubilate*, which means "Rejoice." We celebrate to-day no great event like that of the Nativity, the Resurrection, or Pentecost, but in the lesson[1] selected for this day we find the little circle of disciples who gathered about Jesus stricken with grief and apprehension. Jesus speaks of his departure which will be in a little while, and anxiety fills their hearts. Nevertheless the key-note of the words of Jesus is "Rejoice and fear not, for I have conquered the world."

This world in which we live is full of sorrow. We are surrounded by dangers, and the worst of all dangers, temptations. Sin is in the world, and as every sin has its evil consequences, there are the curses of sin in all their ugly forms. Finally, there is death, that gaunt spectre most dreaded of all evils, yet inevitably awaiting us all. Who of us has not stood at the open grave of some one of his dearest kindred, parent, brother, sister, or a beloved child. In such a world we need support in tribulations, comfort in afflictions, and guidance through the vicissitudes of life.

The greatest religions of the world have found a solution of the problem of life, in an entire surrender of self, with all its vanity and petulancy. This individual existence of ours is hopelessly doomed, so let it go. Cease to worry about it, and attend to the nobler purpose of fulfilling the duties which in your station and position devolve upon you. A thinking man, when considering the conditions of life, will naturally come to the knowledge that it is a mistake to regard ourselves as wholes. We are parts only, and we must seek the purpose of our being in something greater than we are.

The old philosopher Lâo-tsze, who lived in China six hundred years before Christ, before Cyrus had founded the Persian Empire and when our ancestors were still savages, says in his wonderful little book, the "Tâo-Tĕh-King":

"He that regards himself as a part shall be preserved entire.[2]

[1] St. John xvi, 16-23.

[2] John Chalmers translates the passage; "He that humbles [himself] sball be preserved entire." James Legge translates: "The partial becomes complete."

He that bends himself shall be straightened.
He that makes himself empty shall be filled.
He that wears himself out shall be renewed.
He that is diminished shall succeed.
He that is boastful shall fail.

Therefore, the sage embraces the one thing that is needed, and becomes a pattern for all the world.

He is not self-displaying, and, therefore, he shines.
He is not self-approving, and, therefore, he is distinguished.
He is not self-praising, and, therefore, he has merit.
He is not self-exalting, and, therefore, he stands high, and inasmuch as he strives not for recognition, no one in the world strives with him."

Lâo-tsze adds these words, which indicate that others before him had thought as he had:

"That ancient saying, 'He that regards himself as a part shall be preserved entire,' is no vain utterance. Verily he shall be returned home entire."

It is a natural mistake to look upon our self as an entirety, as a whole. Our life appears to us as the world itself; everybody is inclined to look upon his own existence as a universe which has its own purpose in itself. It is a natural mistake into which living beings will fall unless they are on their guard, but it is a mistake nevertheless; it is a serious mistake; indeed, the fundamental error from which flow all other errors, sins, and crimes. To avoid this error of selfishness must be the essence of all the instruction we impart to our children; it must be the essence of all the religion to which we cling. The world is not a part of us, but we are a part of the world. If we adjust our life as if the world were a part of our self, we shall inevitably suffer shipwreck, while if we understand the proper conditions of our existence we shall act virtuously and find consolation for the ills of life.

The purpose we set ourselves is the essence of our life; our body is only the instrument of this purpose. Find out what a man aspires to, what ambition he has, what aims he pursues, and you have the key to his character. His purpose is the nature of his being; it is his soul. Now, he whose purpose is self, will involve himself in difficulties, and when the hour of death comes he will die like a beast of the field; his soul is lost; the purpose of his life was in vain. He may have enjoyed life in empty pleasures, but they

are gone as if they had never been. And his history is writ in water.

It lies deeply rooted in the constitution of being that selfishness is a fatal error, for our self is transient, it is doomed to die, but if the purpose of our being is such as will endure beyond the grave, our soul will not die when our life is ended. Death will not touch us, and we shall be preserved entire, our soul will live.

There have been, and are still, philosophers who teach that the purpose of life is to get out of it as much pleasure as possible. How shallow, how empty is this view of life, and how insufficiently will such a maxim serve us as a rule of conduct! The great religious teachers of mankind, men like Lâo-tsze, Buddha, and Christ have seen deeper. Jesus says: "Take my yoke upon you and learn of me, for I am meek and lowly in heart, and you shall find rest unto your souls for my yoke is easy and my burden is light."

Self-surrender appears to the selfish as the greatest sacrifice possible; but it is only the first step that costs. The practice of every virtue is easy to him who has freed himself from the vanity of the conceit of self. He who has taken his cross upon his shoulders will soon experience the truth of Christ's word: "My yoke is easy and my burden is light."

The great moral teachers who have seen the depth and breadth of life agree in this, that there is but one escape from the evils of existence: it is the surrender of self, and to live in a higher whole. Says Schiller in his Xenions:

> "Art thou afraid of death? Thou wishest for life everlasting.
> Live as a part of the whole, when thou art gone it remains."

In the same spirit the German poet sets forth his doctrine of salvation:

> "Out of life ever lie two roads for every one open:
> To the Ideal the one leadeth, the other to death,
> Try to escape in freedom, as long as you live, on the former,
> Ere on the latter you are doomed to destruction and death."

This, then, is the essence of all true religion: to surrender selfishness and lead the nobler life of a higher purpose. He who takes this view lifts himself above the limited range of the individual and enters a higher sphere of existence. He partakes of that peace of mind which is the sole source of happiness, for thus the tribulations of life touch him no longer. He has overcome death and breathes the air of immortality. His purpose continues after death and grows with the advance of human thought. His soul marches on in the progress of mankind, and his life will be a building-stone in the temple of humanity.

This essence of all true religion has been covered by the overgrowth of superstitions. It has been ossified in dogmas, it has been neglected and forgotten, yet again and again men rose to rediscover it and to teach its truth. Let us hold fast to it, let us have it preached in our pulpits, and let us hand it down to our children and our children's children as their most precious inheritance.

Religion is a great power in this world, and it affects people in various ways, according to their characters. Let our religion be broad and kind-hearted, so as to embrace in its sympathy all the world and exclude nothing. Let it be the religion of the serious thinker, and above all of the energetic and active man. Thus we find three things which should characterise religion: (1) Religion must have sentiment without being sentimental; (2) Religion must be rational but not rationalistic; and (3) Religion must be practical but not ostentatious.

Religion must comprise the whole man. It must penetrate his heart, his head, and his will. May our religion be lacking in none of its essential elements! May it be in the heart, so as to cheer us in hours of affliction, and warm our emotions with noble and holy aspirations for righteousness; may it be of the head, so as to keep our minds sound and sober, and lest we sink into superstitions; may it be of the will, so as to make of our faculties a power for good and our life a source of blessing, not only to our present surroundings but also to later generations, a well of the living waters of spiritual influence which will never run dry.

We say first, religion must have sentiment without being sentimental. By sentimentality we understand that disposition of mind in which sentiments rule. A sentimental man allows himself to be carried away by his feelings. He is like an engine in which the governor does not perform its function. He is not well-balanced, and lacks the regulation of rational self-critique. Those who are sentimental, are as a rule good-natured, and in many respects admirable people. Their intentions are pure, but following the impulse of the moment they are rash and frequently commit themselves to acts, the consequences of which they have not considered. They are apt to venture into enterprises which are too much for them, and their judgment is influenced by the moment. Sentiment should not be lacking in any man or woman, for sentiment is the substance of which the world of spirit is made. Nevertheless, sentiment must not be the master; sentiment must not be the supreme ruler and king in the domain of the soul. Sentiment must accompany all thoughts and actions; it must be the warm breath of life that casts over them the glow of sympathy and love. Sentiment must give color to our life but must not shape it. Without sentiment life would be bleak and indifferent, as the astronomers tell us that the landscape on the moon must be, where in the absence of an atmosphere all the sky presents itself only in the

sharp contrasts of glaring light or absolutely black darkness. There is no gentle transition from night to day or day to night, no dawn, no evening red, and thus the world appears to be dreary, cold, and dead. Preserve the fervor of sentiment, for without it man would become mechanical like a calculating machine; above all preserve the enthusiasm for your religious convictions; but beware of sentimentality as a dominating power; beware of suppressing the functions of critical investigation. Always let the ultimate decision in your believing, and still more so in the activity of practical life, lie with cool deliberation, which impartially weighs every reason why. Have your sentiments under control. That will make you self-possessed, calm, and strong.

Sentiment in religion is a valuable quality. It frequently happens that the youthful enthusiasm of a man declines with advancing years while his rational insight increases. But this is neither desirable nor necessary. Let not your zeal for truth and right be chilled because you have learned to winnow the wheat from the chaff. On the contrary, the purer, the truer, and the more clear-headed your religion is, the more you ought to cherish it and love it, the more you should be ready to make sacrifices for its dissemination, the more fervid you should be in your efforts to spread it over the world.

It has been said that the vitality of a religion can be measured by the exertions made in its missionary propaganda, and this is not without truth; therefore, let it be your duty to work for the propagation of a purer religion undefiled by superstition, and do not fall behind others in your zeal for its holy cause.

As the second requisite of a sound religion we demand that it be rational without being rationalistic. There have been great religious teachers, such as St. Augustine, and Luther, who unqualifiedly declare that religion must from its very nature appear irrational to us. They claim that reason has no place in religion, and must not be allowed to have anything to do with it. The ultimate basis of a religious conviction, they urge, is not knowledge but belief, a view which in its utmost extreme is tersely expressed in the famous sentence, *Credo quia absurdum*—I believe because it is absurd. In opposition to this one-sided conception of the nature of religion, rationalists arose who attempted to cleanse religion of all irrational elements, and their endeavors have been crowned with great results. We owe to their efforts the higher development of religion, and must acknowledge that they were among the heroes who liberated us from the bondage of superstition. Nevertheless, the rationalistic movement, that movement in history which goes by the name of rationalism, is as one-sided as its adversary. Without any soul for poetry its apostles removed from the holy legends the miraculous as well as the supernatural, and were scarcely aware of how prosaic, flat, and insipid religion became under this treatment. On the one hand they received the accounts of the Bible in sober earnestness like historical documents; on the other hand they did not recognise that the main ideas presented in religious writings were of such a nature as to need the dress of myth. We know now that the worth and value of our religious books does not depend upon their historical accuracy, but upon the moral truths which they convey. We do not banish fairy-tales from the nursery because we have ceased to believe in fairies and ogres. These stories are in their literal sense absurd and impossible, yet many of them contain gems of deep thought; many of them contain truths of great importance. The rationalistic movement started from wrong premises, and pursued its investigations on erroneous principles. Our rationalists tried to correct the letter and expected thus to purify the spirit. But they soon found it beyond their power to restore the historical truth, and in the meantime lost sight of the spirit. They were like the dissector who searches for the secret of life by cutting a living organism into pieces; or like a chemist, who, with the purpose of investigating the nature of a clock, analyses the chemical elements of its wheels in his alembic. The meaning of religious truth cannot be found by rationalising the holy legends of our religious traditions.

Rationalism is a natural phase of the evolution of religious thought, but it yields no final solution of the problem. In a similar way our classical historians attempted in a certain phase of the development of criticism to analyse Homer and the classical legends. They rationalised them by removing the irrational elements, and naïvely accepted the rest as history. The historian of to-day has given up this method and simply presents the classical legends in the shape in which they were current in old Greece. Legends may be unhistorical, what they tell may never have happened, yet they are powerful realities in the development of a nation. They may be even more powerful than historical events, for they depict ideals, and ideals possess a formative faculty. They arouse the enthusiasm of youth and shape man's actions, and must therefore be regarded as among the most potent factors in practical life.

We regard the rationalistic treatment of Bible stories as a mistake, yet for that reason we do not accept the opposite view of the intrinsic irrationality of religion. We do not renounce reason; we do not banish rational thought from the domain of religion. Although we regard any attempt at rationalising religious legends as a grave blunder, we are nevertheless far from considering reason as anti-religious. On the contrary, we look upon reason as the spark of divinity

in man. Reason is that faculty by virtue of which we can say that man has been created in the image of God. Without reason man would be no higher than a beast of the field. Without rational criticism religion would be superstition pure and simple, and we demand that religion must never come in conflict with reason. Religion must be in perfect accord with science; it must never come into collision with rational thought. Reason after all remains the guiding-star of our life. Without reason our existence would be shrouded in darkness.

It is not enough, however, to let religion fill our soul with holy sentiments and penetrate our intellectuality. Religion must dominate our entire being and find expression in practical life. Our religion must be the ultimate motive of all our actions: thus alone can we consecrate our lives and transfigure our existence; thus alone can we conquer the vanity of worldliness and overcome the evils of life; thus alone learn to rejoice in the midst of affliction; and thus alone can we calmly and firmly confront death. Our rest in the grave will be sweet if our souls can look back upon life without regret or remorse, if they have the consciousness that with all our faults and shortcomings we were always animated with the right purpose; that under the circumstances we always did our best, and that we remained faithful to the highest purpose of our most sacred ideals.

Religion is needed not so much in our churches as in the homes and streets of our cities. Religion does not consist in joining a church, and making people know that we profess religious principles. Joining a church is a means to an end. Worst of all would it be to use religion for the purpose of establishing our credit among financiers. Let our religion appear in our life and let our actions demonstrate our convictions. Religion is needed not on Sundays only, but on workdays also, not for worshipping but in the intercourse with our fellows, in the relation between husband and wife, parents and children, master and servant, employers and laborers, buyers and sellers, in the offices of office-holders; in a word, in all the duties of life. Religion must become practical; it must be realised in deeds; and the blessing of a religious man will not only go out into the world and contribute its share in the general progress of mankind, but it will also return to himself some time, perhaps when he least expects it.

Religion, if it be a real power applied in practical life, has a wonderful faculty of preservation. Even the lower forms of religious belief which are still mingled with superstitious elements, afford to young men and young women an extraordinary strength; they give character and stability to their whole mental frame, which otherwise they might lack. Do not, therefore, neglect the religious side of education, but arouse the interest of the growing generation in the deepest problems of life. Religion, if taken seriously, is the centre of our spiritual existence; as the religion of a man is, so will be his inclinations and his purposes; and again, as his inclinations and purposes are, so will be his destiny. The fate of a man, the development of his life, depends in the first instance upon his religion. The absence of religion, therefore, is a great lack, but if religion be a mere theory or an empty ceremonial, it is wholly inefficient, even as if it had no existence.

The ultimate test of religion after all does not lie in the satisfaction and comfort we derive from it, nor can it be found in the purely theoretical criticism of its arguments, but must be sought in its practical application. That religion is the true religion which bears fruit and brings about the desired results. Our sentiments must maintain the right attitude, and our comprehension must correctly understand the nature of life; yet our religion profiteth nothing, but is as sounding brass or a tinkling cymbal unless it be the mainspring of our actions and find a realisation in our lives.

We, as children of the nineteenth century believe in evolution. Now, let our belief in evolution not be a mere scientific theory. Let it be a truly religious faith in the possibility of moral progress. Let us not only reject the special-creation doctrine, but let us trust in the grand potentialities of the future. Above all, let us consider that religion too is still able to develop into a higher and purer faith. In this sense, we repeat the poet's[1] lines on the progress of religion:

"Upon religion's sacred page
The gathered beams of ages shine;
And, as it hastens, every age
But makes its brightness more divine.

On mightier wing, in loftier flight,
From year to year does knowledge soar;
And, as it soars, religious light
Adds to its influence more and more.

More glorious still as centuries roll
New regions blest, new powers unfurled,
Expanding with the expanding soul,
Its waters shall o'erflow the world:

Flow to restore, but not destroy;
As when the cloudless lamp of day
Pours out its flood of light and joy,
And sweeps each lingering mist away."

May the Spirit of Truth descend upon our souls, and when we find that the duties of life demand self-surrender, let us strengthen our will so that we may shrink not from what appears to us as the greatest of

[1] This hymn on "The Progress of Gospel Truth" is by Sir John Bowring. It was apparently intended to convey another idea than it here acquires in the connexion in which it is quoted. We have changed the words "the Gospel's sacred page" and "the Gospel light" into "religion's sacred page" and "religious light," so as to indicate that we believe, not so much in the spreading of the letter of the Gospel, as in its progress, viz., in the extensive and also intensive growth of the religious spirit of the Gospel.

sacrifices but press on to attain that religious attitude of mind which fills our hearts with hallowed joy and imparts to us bliss everlasting. P. C.

THE ARENA PROBLEM.

BY DR. FELIX L. OSWALD.

The historian of moral philosophy can derive many instructive, and often amusing, commentaries from the records of a time when our ancestors had not yet mastered the art of using speech as a mask for the concealment of their thoughts.

When Joshua, the son of Nun, decided to make war upon the kingdom of Ai, he did not prate about natural boundaries and the necessity of establishing a balance of power, but frankly stated that he had been inspired to possess himself of the king's cattle; and with a similar candor Polycrates, the tyrant of Samos, specified his reason for suppressing the palestras, or athletic training-schools, of his island. He did not deny the importance of physical exercise, and probably permitted his subjects to train in private gymnasiums, but stated that he considered competitive gymnastics incompatible with that meekness of character which disposed the islanders to submit to his rule.

In other words, the ingenuous pirate-king reasoned that the worship of physical prowess tends to counteract submissive effeminacy, and should therefore not be encouraged by a despotism founded upon the submissiveness of its victims.

That syllogism furnishes the main key to the enigma of the thousand years' war which the spirit of asceticism has waged against the culture of the manly powers. Experience and the instinct of self-preservation convinced them that the duty of intellectual self-abasement could not easily be enforced against that pride of self-reliance and independence engendered by the enjoyment of physical triumphs and constantly reacting from physical upon mental tendencies. While the worn-out nations of Southern Europe had accepted the gospel of renunciation with the eagerness of men fleeing from a forfeited earthly paradise to the promise of a better hereafter, the Saxons and Norsemen had to be converted with battle-axe arguments and often preferred death to submission, or, like the heroic Visigoths, metamorphosed the creed of St. Augustine into Arianism. The mediæval knights, in their mountain strongholds, too, defied the power of the priests almost as openly as the Sumatra Highland-chiefs defy the summons of the European missionaries, and it is no accident that the outbreak of the Protestant revolt was confined to the manful nations of Northern Europe and a few communities of hunters and herders in the upper Alps. There was a time when the orthodoxy of almost every country of the Christian world could be measured by the physical degeneration of its inhabitants,—the extremes being marked by the saint-worship of the effeminate Byzantines and the semi-pagan scepticism of the iron-fisted Northmen; and the priests soon learned to appreciate the value of enervation as a means of grace. They lost no opportunity for depreciating the value of physical exercise. They dissuaded their converts from visiting the palestras, and struck a death-blow at the lingering spirit of nature-worship when they persuaded the despot Theodosius to suppress the celebration of the Olympic Festivals.

But the apostles of anti-naturalism had another reason for dreading the influence of physical education. The culture of physical prowess not only lessened the chance of subduing the revolts against the gospel of renunciation, but directly antagonised the propaganda of one of its root-dogmas: the supposed necessity of sacrificing the joys of earth to the hope of heaven.

The doctrine of that dualism that contrasts the interests of the earthly body and the heaven-destined soul explains the self-tortures of the early Christian devotees, but found its most characteristic assertion in the rules of several monastic orders of the Middle Ages—rules unmistakably intended to undermine the moral and physical manhood of the wretched convent-slaves. They were weakened by vigils and fasts; they were required to perform preposterous acts of self-abasement; they were scourged like galley-slaves. For centuries novices had to pass through an ordeal of ill-treatment that broke down the health of all but the hardiest, while every revival of vigor was checked by a system of periodical bleedings. The name of antimony is said to have been derived from the custom of administering the virulent drug to monks whose constitutions had resisted milder prescriptions, and many mediæval abbots of the austere orders mixed the scant fare of their subordinates with wormwood, to obviate the risk of the dinner-hour being welcomed as an intermission in the series of physical afflictions.

Few tyrants of pagan antiquity would have dreamed of aggravating the odium of their despotism by such refinements of inhumanity, but the mediæval hierarchs, besides coveting the kingdom of the earth, considered it their duty to qualify their converts for the kingdom of heaven by making their bodies the scapegoats of their souls.

Under the stimulus of that two-edged motive, the Church has often persecuted the promoters of arena-sports with a rancor rarely shown in their opposition to war or the most inhuman forms of slavery and despotism. The same priesthood that instigated the man-hunts of the Crusades, denounced tourneys, and a remarkable paragraph of the Canonical Statutes warns confessors against absolving hunters without imposing special penalties, and adds: "Esau was a huntsman

because he was a sinner" (Esau venator, quonium pecator erat, et qui venatoribus donant non homini donant, sed arti nequissimæ!)

The same Puritans who howled up the murderous wars of the Cromwell era, howled down May-day sports; and numerous moralists who connived at slavery, fiercely denounced boxing-matches and cock-fights.

The suppression of athletic sports has for thousands of our fellow-citizens made city-life a synonym of physical degeneration. The lack of better pastimes, rather than innate depravity, has driven millions to the rum-shops, and explains such moral portents as the White Cap epidemics and the organisation of burglar syndicates among the schoolboys of our *ennui*-ridden American country towns.

And there is no doubt that the same cause tends to defeat the efforts of our metropolitan home-missionaries. "Every one," says Lecky, "who considers the world as it really exists, must have convinced himself that in great cities, where multitudes of men of all classes and all characters are massed together, and where there are innumerable strangers, separated from all domestic ties and occupations, public amusements of an exciting order are absolutely necessary, and that to suppress them is simply to plunge an immense portion of the population into the lowest depths of vice."

In other ways, too, the attempt to prevent the manifestations of natural instincts is apt to defeat its own purpose, and only a few days ago a shrewd observer of the contest between the friends and opponents of a southern sporting-club remarked that "the manner of conducting such crusades only tends to make the cause of their leaders odious, by teaching thousands to associate the name of the Law and Order League with the ideas of hypocrisy and Puritanical intolerance. Imagine the private comments of old sport-loving soldiers who are called upon to 'fortify the State frontiers' and 'enforce the peace,' against two individuals, whose trial of strength, skill, and endurance implies no possible injury to third parties, and who are perfectly willing to abide the consequences of all personal risks."

There is even something pathetic in the enthusiasm which gathers about such pitiful caricatures of the Grecian palestra, and, as it were, draws inspiration from a faint echo of the Olympic Festivals—suggesting the regenerative potency of a more plenary revival.

It would, indeed, be a mistake to suppose that the arena problem could be settled by debating-club duels between an orthodox Sunday-school teacher and an orator of the London Prize Ring. In North America, as well as in England, the settlement of the question involves a tripartite controversy between the exponents of aggressive asceticism, jovial secularism, and philanthropic reform. The representative of the Neo-Puritans will dread a revival of physical hero-worship, and consider an international prize-fight an unmixed evil. The graduate of the Madison Garden Academy will consider it an unqualified blessing and pity the monkish infatuation of those who cannot enjoy it with all its adjuncts of brandy-fumes and tobacco-smoke. The advocate of physical regeneration will honor the revived spirit of athletic enthusiasm even in its perverted form, and without justifying the extravaganzas of its participants, consider the transaction as, on the whole, a lesser evil.

Boxing ranked third among the five chief exercises, the *pentathlon* of Olympia, and owes its present prestige of popularity partly to its combination with wrestling (which makes it, indeed, a decisive, though rough, test of strength and agility) but chiefly to the fact that it can be carried on in a barn or on a raft, as well as on the village green, and can thus defy interference more easily than May-pole climbing and foot-racing, which fell likewise under the veto of the Puritan bigots.

The competitive gymnastics of the future will turn hundreds of boy-topers into young athletes. They will sweeten the dry bread of drudgery with an enthusiasm which for countless thousands will make life worth living, and their promoters will have earned the right to lecture the masses on the expedience of purging their arena from the element of rowdyism.

In the meantime, however, it would be a fair compromise to tolerate the patronage of the boxing-ring—not as an irrepressible relic of barbarism, but as a preliminary step in the direction of that comprehensive reform that shall recognise the interdependence of moral and physical vigor.

CURRENT TOPICS.

For a long time we have looked upon Dogberry and Shallow as caricatures drawn by Shakespeare when he was in a reckless, rollicking mood; and yet we behold their living repetitions in our court-rooms every day. A very good imitation of Dogberry is Mr. Justice Kimball of Washington, who lately ordered the watch to "comprehend all vagrom men," and when the vagabonds were brought before him, talked at them in the authentic Dogberry style. The "vagrom men" were Capt. G. W. Primrose and forty invaders, who, under the name of Coxey's "advance guard," threatened the capital, but fortunately were taken prisoners just outside the picket lines of Washington through the valor of Kimball's men. After the "vagrom men" had been illegally imprisoned from Saturday until Tuesday, they were brought before Judge Kimball and discharged, because they had been arrested beyond the city boundaries and outside the jurisdiction of the city magistrates. They were brought into the city by the police, and then imprisoned for being in the city, which was very much according to Dogberry law. In his decree, the Judge decided that Captain Primrose and his men were tramps, that they were guilty of tramping, and he then rather inconsistently sentenced them to tramp. He released them only on condition that they should at once seek employment, and failing to find it within a reasonable

time, "leave the city." When a magistrate sentences a destitute man to "leave the city," he sentences him to tramp, and as soon as the prisoner begins to work out his sentence by tramping he is liable to be arrested for that, and punished by imprisonment, or by the chain-gang torture, or in some other civilised and enlightened way. Wherever the wanderer halts for a moment's rest, he finds the magisterial Dogberry, and hears the ceaseless monotone, "Move on."

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From the Capitoline hill comes the "all quiet on the Potomac" message that we heard in the days of old. Coxey's army is many miles away, and before it crosses the Maryland line Washington will be safe, especially as the invading army has no guns. Unterrified by the martial renown of General Coxey and his ragged legions, now scaling the Alleghany Mountains as Hannibal scaled the Alps, the defenders of Washington are already in the field, and eager for the fray. According to the dispatches dated April 9, I find that besides Dogberry and the watch, "the district militia is making preparations to meet Coxey and his army. The militia has been undergoing special drill at intervals for the past two weeks, and several of the companies have been suddenly called out by their officers just as they might be summoned to put down a riot or repel an invasion." I suppose this drill is the beating of a counterfeit "long roll," a very exciting call to arms, but not quite so stimulating as the genuine article that used to make our pulses tingle thirty years ago. The nation is not afraid of England, Russia, France, or Coxey now, for the district militia at Washington is ready to "repel an invasion"; although it seems they will not be relied on altogether, for we are further told that, "if the district militia is insufficient, there are four troops of cavalry at Fort Myer, a large force of marines at the barracks near the navy-yard, and a battery of artillery at the arsenal." Besides, there are the members of Congress, who could be drafted into the service, and a few speeches from them would scatter Coxey's army quicker than cavalry, artillery, militia, or marines. Those vast military preparations to "break a fly upon the wheel" will very likely frighten General Coxey, and I shall not be surprised to learn that he has ordered a retreat, and fallen back upon the mountains.

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Among the musical and stately phrases that captivate our senses and subdue us to humility, one of the most awe-creating in its majesty is, "The independence of the judiciary." Whatever liberties the judges take with liberty must be sustained, because the "independence of the judiciary" must be preserved. No matter what fantastic tyranny may be enacted in judgments, orders, injunctions, or decrees, criticism is to be stricken dumb lest the "independence of the judiciary" suffer. Although the private citizen may be judicially tormented by decisions erroneous and unjust, censure must be suppressed in order that "the independence of the judiciary" may stand above the law. To sustain the independence of the judges, is it necessary that the independence of the people be destroyed? Must the citizens be servile and silent that the judges may be free? A few years ago a suspected official in the postoffice, when requested by a government examiner to show his books, indignantly refused, because he thought that such examinations were an assault upon the independence of the Postoffice Department; and this is very nearly the answer given by Mr. Spooner before the committee of Congress appointed to investigate the official conduct of Judge Jenkins in issuing an injunction against the workmen of the North Pacific Railroad. "I believe," said Mr. Spooner, "that these investigations will destroy the independence of the judiciary." This plea for judicial immunity and infallibility is bad, because the independence of the judiciary is limited by law; and Mr. Spooner might as well say that the Constitution of the United States destroys the independence of the judiciary because it provides for the impeachment and trial of judges accused of crimes and misdemeanors. The power of impeachment is in the House of Representatives, and when charges are made against one of the judges by a member of that house, it is eminently proper that a committee of investigation should report whether or not the facts in the case warrant an impeachment. The Constitution is a check, not upon the independence, but upon the imperialism of the courts, and it is a perpetual warning to the judges that they are not above the law.

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It is not surprising that the action of Judge Jenkins in firing those combustible injunctions at the railroad laborers, has aroused a sentiment of revenge in the minds of other workingmen; and *they* may issue some injunctions now as reprehensible as those that have given Judge Jenkins uncomfortable fame. In fact, there seems to be little moral difference between an injunction that orders men to stay at work and one that orders them to quit. One may be issued by a lawyer judge and the other by a labor judge, but the moral character of both injunctions is the same; they strike at liberty. The Jenkins law was drawn from the code of serfdom; and the "labor vote" in its anger may demand the impeachment of the judge, but errors of law or judgment will not justify impeachment; and there was no evidence of corruption or wilful wrong. Five hundred years ago in England, there existed a perpetual injunction forbidding laborers to strike, or to leave their masters, and serfdom was its political result. In our own day, and in our own country, a similar injunction was in force against the black laborers of the South, and slavery was the sign of that. Disobedience of an injunction, is the offence known as "contempt of court," punished by imprisonment and fine, but as workingmen have no money to pay fines, they must if they disobey an injunction, be sentenced to a term in prison. This plan, if attempted, will cause a great deal of social confusion, because there are not policemen enough to arrest the offenders nor prisons enough to hold them. The rulings of Judge Jenkins make the "labor problem" harder than it was; and it was hard enough before.

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When we are driven by legal compulsion to perform a duty that we desire to evade, we feel the pressure as a tyranny, and we resist it if we can; but when we are driven by moral compulsion to do something that we ought to do, we find that the despotism of conscience is irresistible, and we submit to its writs of injunction without any feeling of rebellion in our souls. At the present moment the United States Government is confident that it is under no legal obligation to pay the French exhibitors for the loss of their goods destroyed by fire in the manufactures building after the closing of the World's Fair; and yet it is inevitable that the United States will be driven by moral compulsion to pay that bill. The fact of the loss by fire seems to be admitted, and there is no dispute concerning the value of the property destroyed, about ninety thousand dollars, but the officers of the Fair say they are not responsible for the loss because it was expressly "nominated in the bond" that exhibitors insure their own goods. To this the Frenchmen answer that the stipulation applied only to the time when the Fair was in existence, and that after the Fair closed they were prevented by the negligence of the directors from promptly removing their goods, and as it was during this delay that the fire occurred the Exposition is liable for the loss, and the United States Government is liable for the Exposition. The links in this chain of reasoning appear to be sound, as it was the American Government that invited the Frenchmen to bring their goods to Chicago. It is true that Mr. Sayres, the chairman of the committee on appropriations, and Mr. Holman, "the watch-dog of the treasury,"

with several other members of Congress, have declared against the claim because the United States is not liable for these damages, and if this were a matter of legal compulsion their position would be stronger than Gibraltar, but moral compulsion is a more tyrannical master, and driven by that the United States will pay the Frenchmen's bill.

* * *

A financial statesman in Indiana who desires to relieve the tension in the money market and make the volume of currency equal to the wants of trade proposes that the Government shall do it by issuing six hundred million dollars in legal tender notes, or twice as much if necessary, and rely upon the old pensioners to "get it into circulation" so as to start the wheels of business, move the crops, lift the mortgage, settle balances, abolish interest, restore confidence, and make money so plentiful and cheap that when anybody wants to borrow fifty or a hundred dollars from a neighbor he can get it as easily as he can get the loan of a sack. In order that the money may be scattered impartially throughout the several States, instead of being hoarded by the banks, every pensioner is to get a thousand dollars of it, and in consideration of that lump sum he is to release the Government by quit claim deed from all further obligations to him for putting down the rebellion. This is one of the most practical financial schemes that has been born of late, for there is no doubt that the old soldiers will cheerfully accept the money; and it is equally certain that they will put it into circulation if they can buy anything with it, and as to this part of the plan a suspicion is growing in the military mind, because although those paper dollars will be legal tender in payment of debts they will not be legal tender in the purchase of goods, for this is a prerogative beyond the fiat power of governments to bestow upon anything. We may ridicule the financial superstitions of this reformer but they are not more fantastic or impossible than many of the remedies prescribed by doctors of money in the cabinet, in the Senate, and in the House of Representatives.

* * *

As an additional punishment for our national sins a new pest called the Russian thistle is ravaging the fields of the great Northwest. Its capacity for mischief appears to be unlimited, and Mr. Hansbrough, a member of Congress from the afflicted region, "wants to have a law passed" for the extermination of the thistle. To that end he has introduced a bill appropriating a million dollars for the purpose of weeding out the nuisance that has been imported free of duty from the Russian plains. As soon as the bill was introduced, patriots willing and strong as the thistle itself sprung up to claim a share of the money under the pretence of "weeding out" the thistle. One of these, a citizen of Iowa, has made application to Mr. Sterling Morton the Secretary of Agriculture for the office of Chief Exterminator of the Russian thistle for the State of Iowa, and the Secretary in reply gave the applicant a very good lesson in ethical and political economy. With sarcasm sharper than the sting of a thistle Mr. Morton said, "I must thank you for the patriotic frankness with which you remark, referring to thistles: 'They are spreading fast but we do not want to kill them out before the Government is ready to pay us for the work, or to send some one to do it for us.' Nothing could better demonstrate your peculiar fitness and adaptation for the position of Chief Russian Thistle Exterminator for the Northwest." Such are the benefits of a motherly Government. It pampers its children until they lose the spirit of self-reliance, and they never get old enough to wean. They would rather let the thistle grow than weed it out without pay from the national treasury. In fact they are already threatening to let the thistle spread, and then throw the blame for it upon the Government; as the little boy frightened his mother into obedience by threatening that if she did not give him candy he would go and get the measles, falsely pretending at the same time that he knew a boy who had measles enough to supply all the other boys in town. Spirited citizens like that applicant from Iowa, say to their mother, the Government, "Give us a million dollars, or else we will go and get the Russian thistle and plant it on our farms."

M. M. TRUMBULL.

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THE WILL.[1]

BY PROFESSOR TH. RIBOT.

After having followed step by step the dissolution of the will, the fundamental result which has appeared to us to spring from it is that it is in a co-ordination variable in complexity and degree; that this co-ordination is the condition of the existence of all volition, and that, according as it is totally or partially destroyed, volition is annihilated or impaired. It is upon this result that we would now like to insist, confining ourselves to brief indications on certain points, as it is not our aim to write a monograph of the will.

1) Let us examine in the first place the material conditions of this co-ordination. The will, which in some privileged persons attains a power so extraordinary and does such great things, has a very humble origin. This is found in that biological property inherent in all living matter and known as irritability, that is to say, reaction against external forces. Irritability—the physiological form of the law of inertia—is in somewise a state of primordial indifferentiation whence shall spring, by an ulterior differentiation, sensibility properly so called and motility, those two great bases of psychic life.

Let us remember that motility (which alone concerns us here) manifests itself, even in the vegetable kingdom, under divers forms: by the movements of certain spores, of the sensitive plant, of the *Dionæa*, and of many other plants to which Darwin has devoted a well-known work.—The protoplasmic mass, homogeneous in appearance, of which certain rudimentary beings are exclusively composed, is endowed with motility. The amœba and the white corpuscle of the blood move ahead little by little by the aid of the processes which they emit. These facts, which may be found described in abundance in special works, show us that motility appears long before the muscles and the nervous system, even in their most rudimentary form.

We need not follow the evolution of these two instruments of improvement through the animal series. Let us merely note that the researches on the localisation of the motor centres, so important in the mechanism of the will, have led some savants to study the state of these centres in the newly born. "This investigation, very carefully made by Soltmann, in 1875, has furnished the following results. In rabbits and dogs there exists immediately after birth no point in the cerebral cortex the electric irritation of which is capable of producing movement. It is only on the tenth day that the centres for the anterior members develop. On the thirteenth day the centres for the posterior members appear. On the sixteenth, these centres are already quite distinct from each other and from those of the face. One conclusion to be drawn from these results is, that the absence of voluntary motor direction coincides with the absence of the appropriate organs, and that, in measure as the animal becomes more master of its movements, the cerebral centres in which the elaboration of will takes place acquire a more manifest independence.[1]

Flechsig and Parrot have studied the development of the encephalon in the fœtus and the infant. From the researches of the latter[2] it appears that, if one follows the development of the white matter of an entire hemisphere, it can be seen to rise successively from the peduncle to the optic thalami, then to the internal capsule, to the hemispheric centre, and finally to the cerebral mantle. So those parts whose development is the slowest have the highest functional destiny.

The formative period passed, the mechanism of volitional action appears to be constituted in the following manner: the incitation starts from the regions of the cortical layer called motor (parieto-frontal region), and follows the pyramidal fasciculus, called *voluntary* by some authors. This fasciculus, which consists in the grouping of all the fibres arising in the motor convolutions, descends across the oval centre, forms a small part of the internal capsule, which, as we know, penetrates into the corpus striatum, "like a wedge into a piece of wood." This fasciculus follows the cerebral peduncle and the medulla, where it undergoes a more or less complete decussation, and passes down the opposite side of the spinal cord, thus constituting a great commissure between the motor convolutions

[1] Second extract from our new authorised translation of M. Ribot's *Diseases of the Will*, just published.

[1] *Dictionnaire encyclopédique des sciences médicales*, François-Franck, article "Nerveux," p. 585.

[2] *Archives de physiologie*, 1879, pp. 505-520.

and the grey matter of the cord from which the motor nerves are given out.[1] This rough sketch gives some idea of the complexity of the elements requisite for volitional action and the intimate solidarity which unites them.

There are, unfortunately, some differences of interpretation regarding the real nature of the cerebral centres whence the incitation starts. To Ferrier and many others they are motor centres, in the strict sense; that is to say, that in them and by them the movement commences. Schiff, Hitzig and Nothnagel, Charlton Bastian, and Munk have given other interpretations which are neither equally probable nor equally clear. In general, however, they amount to a regarding of these centres as rather of "a sensory nature," the motor function proper being relegated to the striated bodies. "The nervous fibres that descend from the cerebral cortex, in higher animals and in man, down to the corpora striata, are in their nature strictly comparable with the fibres connecting the 'sensory' and the 'motor' cells in an ordinary nervous mechanism for reflex action."[2] In other words, there are supposed to exist in the cerebral cortex "circumscribed regions the experimental excitation of which produces in the opposite side of the body determinate localised movements. These points seem as if they should much rather be considered as centres of *voluntary association* than as motor centres, properly so called. They would in this view be the seat of incitements to voluntary movements and not the true points of departure of the motion. They ought rather to be assimilated to the peripheral organs of sense than to the motor apparatus of the anterior cornua of the medulla. . . . These centres would then be *psycho-motor*, because by their purely psychic action they command veritable motor apparatus. . . . We believe that the different points indicated as motor centres for the members, the face, etc., correspond to the apparatus which receive and transform into *voluntary* incitation the sensations of peripheral origin. They would thus be volitional centres and not true motor ones."[3]

Notwithstanding this pending question, the solution of which concerns psychology at least as much as physiology, and in spite of disagreements in detail that we have neglected, especially the uncertainties regarding the function of the cerebellum, we may say with Charlton Bastian that, "if since Hume's time we have not learned in any full sense of the term 'the means by which the motion of our bodies follows upon the command of our will,' we have at least learned something as to the parts chiefly concerned, and thus as to the paths traversed by volitional stimuli."[1]

2) In examining the question on its psychological side, volitional co-ordination assumes so many forms and is susceptible of so many gradations that only its principal stages can be noticed. It would be natural to begin with the lowest; but I think it useful, for the sake of clearness, to follow the inverse order.

The most perfect co-ordination is that of the highest wills, of the great men of action, whatever be the order of their activity: Cæsar, or Michael Angelo, or St. Vincent de Paul. It may be summed up in a few words: unity, stability, power. The exterior unity of their life is in the unity of their aim, always pursued, creating according to circumstances new co-ordinations and adaptations. But this outer unity is itself only the expression of an interior unity, that of their character. It is because they remain the same that their end remains the same. Their fundamental element is a mighty, inextinguishable passion which enlists their ideas in its service. This passion is themselves; it is the psychic expression of their constitution as nature has made it. So all that lies outside of this co-ordination, how it remains in the shade, inefficacious, sterile, forgotten, like a parasitic vegetation! They present the type of a life always in harmony with itself, because in them everything conspires together, converges, and consents. Even in ordinary life these characters are met with, without making themselves spoken of, because the elevation of aim, the circumstances, and especially the strength of the passion, have been lacking to them; they have preserved only its stability.—In another way, the great historic stoics, Epictetus, Thraseas, (I do not speak of their Sage, who is only an abstract ideal,) have realised this superior type of will under its negative form,—inhibition,—conformably to the maxim of the school: Endure and refrain.

Below this perfect co-ordination, there are lives traversed by intermission, whose centre of gravity, ordinarily stable, nevertheless oscillates from time to time. One group of tendencies makes a temporary secession with limited action, expressing, so far as they do exist and act, one side of the character. Neither for themselves nor for others have these individuals the unity of the great wills, and the more frequent and complex in nature are these infractions of perfect co-ordination, the more the volitional power diminishes. In reality, all these degrees are met with.

Descending still lower, we reach those lives by double entry, in which two contrary or merely different tendencies dominate in turn. There are in the individual two alternate centres of gravity, two points of convergence for successively preponderating but only

[1] Huguenin, *Anatomie des centres nerveux*, (translated from the German by Keller). Brissaud, *De la contracture permanente des hémiplégiques*, 1880, p. 9, et seq.

[2] Charlton Bastian, *Brain as an Organ of the Mind*, chapter xxvi.

[3] François-Franck, loc. cit., pp. 577, 578.

[1] Loc. cit.

partial co-ordinations. Taking everything together, that is perhaps the most common type, if one looks around one, and if one consults the poets and moralists of all times, who vie with each other in repeating that there are two men in us. The number of these successive co-ordinations may be still larger; but it would be idle to pursue this analysis further.

One step more, and we enter into pathology. Let us recall the sudden irresistible impulses which at every moment hold the will in check; it is a hypertrophied tendency which continually breaks the equilibrium, and the intensity of which is too great to permit it any longer to be co-ordinated with the others; it goes out of the ranks, it commands instead of being subordinated. Then when these impulses have come to be no longer an accident but a habit, no longer one side of the character but the character itself, there are henceforth only intermittent co-ordinations; it is the will that becomes the exception.

Lower still, it becomes a mere accident. In the indefinite succession of impulses varying from one minute to the other a precarious volition finds with difficulty at long intervals its conditions of existence. Only caprices then exist. The hysteric character has furnished the type of this perfect *incoördination.* Here we reach the other extreme.

Beneath this there are no more diseases of the will, but an arrest of development which prevents it from ever arising. Such is the state of idiots and imbeciles. We will say a few words regarding them here in order to complete our pathological study.

"In profound idiocy," says Griesinger, "efforts and determinations are always instinctive; they are chiefly provoked by the need of nourishment; most frequently they have the character of reflexes of which the individual is hardly conscious. Certain simple ideas may still provoke efforts and movements, for example, to play with little pieces of paper. . . . Without speaking of those who are plunged in the profoundest idiocy, we ask ourselves: Is there in them anything that represents the will? What is there in them that can will? In many idiots of this last class the only thing that seems to arouse their minds a little is the desire to eat. The lowest idiots manifest this desire only by agitation and groans. Those in whom the degeneracy is less profound move their lips and hands a little, or else weep: it is thus that they express a desire to eat. . . . In slight idiocy the foundation of the character is inconstancy and obtuseness of feeling, and weakness of will. The disposition of these individuals depends upon their surroundings and the treatment they receive: it is docile and obedient when they are taken care of, ill-natured and malicious when they are badly treated."[1]

Before bringing this subject to an end, we will again remark that if the will is a co-ordination, that is to say a sum of relations, it may be predicted *a priori* that it will be produced much more rarely than the simpler forms of activity, because a complex state has much fewer chances of originating and enduring than a simple state. And such are the real facts in the case. If in each human life we count up what should be credited to the account of automatism, of habit, of the passions, and above all of imitation, we shall see that the number of acts that are purely voluntary, in the strict sense of the word, is very small. For the majority of men, imitation suffices; they are contented with what *has been* will in others, and, as they think with the ideas of the world at large, they act with its will. Between the habits which render it useless and the maladies that mutilate or destroy it, the will, as we have said above, must be taken as a happy accident.

Is it necessary, finally, to remark how close a resemblance there is between this increasingly complex co-ordination of tendencies which forms the different stages of the will, and the increasingly complex co-ordination of perceptions and images which constitutes the various degrees of the intellect, one having for its basis and fundamental condition the character, and the other the "forms of thought"; both being a more or less complete adaptation of the being to its environment, in the order of action or in the order of knowledge?

* * *

We are now prepared for the general conclusion of this work, already indicated several times in passing. It will illuminate, I trust, with a retrospective light the road which we have traversed.

Volition is a final state of consciousness which results from the more or less complex co-ordination of a group of states, conscious, subconscious, or unconscious (purely physiological), which all united express themselves by an action or an inhibition. The principal factor in the co-ordination is the character, which is only the psychic expression of an individual organism. It is the character which gives to the co-ordination its unity,—not the abstract unity of a mathematical point, but the concrete unity of a consensus. The act by which this co-ordination is made and affirmed is choice, founded on an affinity of nature.

The volition that subjective psychologists have so often observed, analysed, and commented upon is then

[1] Griesinger, *Traité des maladies mentales* (translated from the German), pp. 433, 434. For a complete study of the question consult the recent work by Father Sollier: *Psychologie de l'idiot et de l'imbécile.* It will be seen that in them the will cannot be formed because the conditions of its existence are lacking. The atrophy of the intellectual and affective faculties renders the apparition of voluntary activity impossible: which proves once more that it is not a primordial "faculty," but an acquired and complex state resulting from an evolution. These weak-minded persons cannot go beyond the period of reflexes, affective and intellectual; the world of will is a promised land into which they will never enter.

for us only a simple state of consciousness. It is merely an effect of that psycho-physiological activity, so often described, only a part of which enters into consciousness under the form of a deliberation. Furthermore, *it is not the cause of anything*. The acts and movements which follow it result directly from the tendencies, feelings, images, and ideas which have become co-ordinated in the form of a choice. It is from this group that all the efficacy comes. In other terms,—and to leave no ambiguity,—the psycho-physiological labor of deliberation results on the one hand in a state of consciousness, the volition, and on the other in a set of movements or inhibitions. *The "I will" testifies to a condition, but does not produce it.* I should compare it to the verdict of a jury, which may be the result of a very long criminal examination, and of very passionate pleadings, and which will be followed by grave consequences extending over a long future, but *which is an effect without being a cause*, being in law only a simple statement.

If one insists on making of the will a faculty, an entity, all becomes obscurity, perplexity, contradiction. One is caught in the snare of a badly stated question. If, on the contrary, we accept the facts as they are, we disembarrass ourselves at least of factitious difficulties. One does not have to ask oneself, like Hume and so many others, how an "I will" can make my members move. This is a mystery which need not be cleared up, since it does not exist, as volition is in no degree a cause. It is in the natural tendency of feelings and images to express themselves in movements that the secret of acts produced should be sought. We have here only an extremely complicated case of the law of reflexes, in which, between the period called that of excitation and the motor period there appears a most important psychic fact—volition—showing that the first period is ending and the second beginning.

Let it be remarked also how easily that strange malady called abulia can now be explained, and with it the analogous forms considered above,[1] and even that mere weakness of will, scarcely morbid, so frequent among persons who say that they will and yet do not act. It is because the individual organism, the source from which all springs, had two effects to produce and produces only one of them: the state of consciousness, choice, affirmation; while the motor tendencies are too weak to express themselves in acts. There is sufficient co-ordination, but insufficient impulse. In irresistible acts, on the contrary, it is the impulse which is exaggerated, and the co-ordination which grows weak or disappears.

We owe, therefore, to pathology two principal results: one, that the "I will" is in itself wholly without efficacy in causing action; the other, that the will in the rational man is an extremely complex and unstable co-ordination, fragile by its very superiority, because it is "the highest force which nature has yet developed—the last consummate blossom of all her marvellous works."[1]

[1] In the first chapter of *The Diseases of the Will*, from which this article is extracted.

[1] Maudsley, *The Physiology of Mind*, p. 456.

INSTINCT AND INTELLIGENCE IN CHICKS AND DUCKLINGS.

A CONTRIBUTION TO ELEMENTARY PSYCHOLOGY.[2]

BY PROF. C. LLOYD MORGAN.

In my "Animal Life and Intelligence" I quoted some of Spalding's statements as to the intelligence of young birds. I then received a letter from my friend, Mr. T. Mann Jones, informing me of observations of his own which did not accord with those which I quoted, and expressing some scepticism as to the existence of what he termed "the philosopher's chick." I therefore determined to observe for myself, and the following paper contains some account of my observations, which should be compared with those of Douglas Spalding in *Macmillan's Magazine* for February, 1873, and those of Professor Eimer in his "Organic Evolution" (English Translation, p. 245). I desire to express my acknowledgements to Mr. Mann Jones for his suggestions and criticisms.

The eggs were incubated under the hen until about the third day before hatching, when they were transferred to an incubator. After hatching, the young birds were left in the drawer of the incubator for from twelve to twenty hours. They were then kept under observation in a small pen surrounded with wire netting in my study. There was thus no influence of adult birds. I was their only foster-mother. I shall describe the observations under the head of the day of chick or duck life—first day, second day, and so on—dating from their removal from the incubator drawer.

First Day.—*Chicks.*—On opening the drawer of the incubator the newly-hatched birds are often seen to huddle together and to try and burrow under each other. Experiments on the co-ordination for pecking show that any small, conspicuous object is struck at. The aim was seldom quite correct, the tendency being apparently to strike somewhat short. Moving the object a little with a long steel pin caused it more readily to catch their eye. It was generally seized at the third or fourth stroke, but a little awkwardly, and was not always successfully swallowed. Flies, from which a portion of their wings had been removed, were followed as they ran, and were seized at from about the seventh to the twelfth stroke. The chicks pecked persistently at their own and each other's toes and at the bright bead-like eyes of their yellow neighbors, also at excrement, shaking their heads and wiping their bills.

Ducklings.—The pecking co-ordination was imperfect. When a piece of white of egg was seized it was mumbled rapidly and shaken out of the bill unswallowed. Towards the close of the day they began to swallow what they seized, but the pecking co-ordination was not quite perfect. They were at first very unsteady on their legs (more so than the chicks) and tilted over backwards on to their tails. One scratched its head, but toppled over, the double co-ordination of standing on one leg and scratching its head was more than it could manage. They walked several times through the water placed in a shallow tin, but took no notice of it. I dipped the beak of one of them in the water; it then drank repeatedly, shovelling up the water with characteristic action. Presently the others imitated the action and drank freely. I dropped,

[2] This article, sent to us by the author, was published in Vol. IV, No. 25, of *Natural Science*, of London. It is so instructive and of such great interest that we deem a republication of it justified, that it may reach as large a circle of readers as possible.

at different times, two ducks in a tepid bath. They kicked vigorously and excitedly, dropping their excrement, but in a minute swam about with easy motion, pecking at marks on the sides of the bath.

Second Day.—*Chicks.*—Several ran repeatedly through the water in a shallow tin, but took no notice of it. Then, after about an hour, one of them standing in the water pecked at its toes. It lifted its head and drank freely with characteristic action. Another subsequently pecked at a bubble near the brim and then drank. The stimulus of water in the bill at once led to the characteristic responsive action. Others came up and pecked at the troubled water; they, too, then drank. Later on one was running and toddled into the tin; it stopped at once and drank. Wet feet seemed to suggest drinking by association. I placed two winged flies before them. One chick seized a fly at the first stroke. Another followed the second fly and made three pecks at it, but the other chick rushed in and caught it at the first stroke. A large winged fly thrown among other chicks was approached by one bird which gave the danger note (a very characteristic sound). Subsequently the same chick followed it and caught it after several bad shots. They pecked about equally at four kinds of grain, millet, canary, groats, and pari; but swallowed more of the millet. They also pecked at and swallowed sand grains. I took one of the chicks and put it down near a young cat. The bird showed no signs of fear.

Ducklings.—Both ducks made at once for water in shallow tin, drank, and squatted down in it. They ate keenly of white of egg, swallowing large morsels, the pecking co-ordination being nearly accurate. Both scratched their heads occasionally and toppled over. They preened the down, especially of the breast, in characteristic fashion; they also applied the bill to the base of the tail and rubbed the sides of their heads along the back in quite approved duck fashion. They stood up, stretching out their necks and flapping their wings, sitting down on their tails from imperfect co-ordination. They showed much less accuracy of aim than the chicks in catching running flies. The abortive attempts were numerous. They ate their own and chicks' excrement freely and showed little sign of disgust. (In South Africa young ostriches are often supplied with the droppings of the old birds, for medicinal purposes. So I was informed.)

Third Day.—*Chicks.*—The chicks pecked excitedly at flies placed in an inverted tumbler, but failed to catch them on the wing when the insects were allowed to escape. They still peck at any small objects, especially bright ones, but show more discrimination in swallowing. They run to one's hand when one pecks on the ground with one's finger or a pencil, simulating the action of a hen. One can thus induce them to seize objects which they would otherwise leave untouched. They will always run to nestle in one's hands, poking their heads out between one's fingers prettily. To some chicks (Group A) I threw cinnabar caterpillars. They were seized but at once dropped, with some wiping of the bill. The caterpillars were uninjured, and were seldom touched again. They were removed and thrown in again towards the close of the day. Some chicks tried them once, but they were soon left. I could induce birds to pick them up by "pecking" with a pencil, but they were at once dropped.

Ducklings.—There was nothing special to note.

Fourth Day.—*Chicks.*—I threw to the chicks of group A some looper caterpillars and some green caterpillars from gooseberry bushes. They were approached with some suspicion. Presently one chick seized one and ran off, giving rise to a stern chase. Another stole it from the first and ate it. In a few minutes all the caterpillars were cleared off. Later in the day I gave them more of these edible caterpillars, which were eaten freely. Then some cinnabars. One chick ran, but checked itself, and without touching the cinnabar wiped its bill (association). Another seized one and dropped it at once. A third subsequently approached a cinnabar as it walked along, gave the danger note, and ran off. Then I threw in more edible caterpillars, which again were eaten freely. The chicks thus discriminate by sight between the nice and the nasty caterpillars. To a second group (B) I threw cinnabars and small worms. Both were seized at first with equal appetence, but discrimination was soon established. The chicks began to scratch the ground (perhaps also the day before, but not markedly). Several of them pecked at the burning end of a cigarette two or three times, but some were stopped by a whiff of the smoke, and then shook their heads and wiped their bills. Subsequently, when the cigarette was out and cold, they came and looked at it; and one, after eyeing it, wiped its bill on the ground. A large *Carabus* beetle, sprawling on its back, was an object of fear; one chick at last pecked at it, uttering the danger note, and threw it on one side. After this none went near it.

Ducklings.—Experiments with cinnabar caterpillars, loopers, and worms gave similar results to those obtained with the chicks.

Fifth Day.—*Chicks.*—One of the birds, bolder than the rest, would eat large flies with relish. I threw in a bee. Most of the chicks were afraid, as they were of large flies. The bolder chick, however, snapped it up and ran off with it. Then he dropped it and shook his head, wiping his bill. Probably he tasted the poison and was not stung; in any case, he was quite lively and unconcerned in a few minutes; but he did not touch the bee again. The chicks preened their down early on this day. If they had done so before, I failed to note the fact. Later in the day I put beneath a tumbler a large fly and a small humble-bee with a sting. Two of the chicks ran round the tumbler pecking at the insects. I let the bee escape. The bolder chick seized it, dashed it against the ground, and swallowed it without a wink. With another group of chicks I first gave bees, which were seized but soon let alone, and then *Eristalis*. They were left untouched. Their resemblance to the bees was protective. Later I gave *Eristalis* again, and induced one of the chicks to seize it by pecking at it with my pencil. He ran off with it, chased by others. It was taken from him and swallowed. The other *Eristalis* insects were left untouched, but one was subsequently eaten.

Ducklings.—I placed some frog tadpoles in their water. They were soon spied and eaten greedily. The vulgarity of the duckling as a feeder is painful to witness.

Sixth Day.—*Chicks.*—I gave them their tin without water. They stood in it and pecked, one lifting its head. They scratched at the bottom vigorously, and pecked again and again. On this day they frequently stood up, stretching out their necks and fluttering their wings. They may, however, have begun to do this earlier. Several of them pecked at a sleepy wasp, but soon let it alone. I made a number of experiments on this and the previous day with regard to their ability to catch flies on the wing, placing the insects under a tumbler. The birds pecked at them as seen through the glass. I then let them, one by one, escape. The chicks made a dash at them, but never succeeded in catching one, though they caught one or two as they crawled out before they had taken flight. I tried also with tumblers covered with cards. I may add that up to thirteen days I have never yet once seen a fly captured on the wing by either a chick or duckling, though I have often seen them struck at.

Ducklings.—Each morning, at nine o'clock, I had placed in their pen a large black tray, and on it a flat tin containing water. To this they eagerly ran, drinking and washing in it. On the sixth morning I gave them the tray and tin in the usual way, but without any water. They ran to it, scooped at the bottom, and made all the motions of the beak as if drinking. They squatted in it, dipping their heads and waggling their tails as usual. For some ten minutes they continued to wash in non-existent water (association). I then gave them water. I threw them a bee: one of them

seized it and swallowed it. Possibly he was stung. He kept on scratching his beak—first on one side, then on the other, and seemed uneasy. He was all right again, however, in half an hour, but did not seem keen after a bee I offered him; nor would he take any notice of an *Eristalis*.

SEVENTH DAY.—*Chicks* (Group A).—I threw in a number of bits of red-brown worsted, one to two inches long. They were seized with eagerness and eaten with avidity. I could not satisfy them with worsted worms, and desisted in the attempt lest the diet should produce unpleasant effects on their little gizzards. I left, however, one four-inch worsted worm, of which the chicks seemed afraid. Presently the bolder one seized it, ran off with it chased by the others, escaped from the pen, reached a secluded corner of my study, and with great efforts swallowed it to the last half-inch. The same chick pecked repeatedly at something near the corner of the turned-up newspaper which then formed the wall of my pen (I now use wire netting). This I found to be the number of the page. He then transferred his attention to the corner of the paper, which he could just reach. Seizing this he pulled at it, bending it down and thus forming a breach in the wall of my experimental poultry-yard, through which he escaped. I caught him and put him back near the same spot. He went at once to the corner, pulled it down, and escaped. I caught him and put him back on the other side of the pen. Presently he sauntered round to the corner, began pecking again, and escaped. I then pulled it up out of his reach. He pecked at it, but soon desisted. This is a good, simple example of the intelligent utilisation of a chance experience. Group A, including this chick, were near the close of their seventh day returned to the yard from which the eggs were obtained through the kindness of my friend, Mr. John Budgett. They were adopted by a broody hen, and were reported to seem afraid of her.

Very noticeable at this stage is the effect of any sudden noise—a sneeze, clapping one's hands, a sharp chord on the violin; or of suddenly pitching among the chicks a piece of screwed-up paper. They scatter and crouch, or sometimes simply crouch down where they are. The constant piping cheep-cheep ceases, and for a moment there is dead stillness, each bird silent and motionless. In a minute or so, up they get and resume their cheeping notes.

Ducklings.—I repeated the experiment with the dry tin. Again they ran to it, shovelling along the bottom with their beaks and squatting down in it. But they sooner gave up the attempt to find satisfaction in a dry bath.

EIGHTH DAY.—*Chicks*.—On this day I noticed for the first time the chicks crouching down and making all the movements of sand-washing or dusting themselves in the way many birds affect. There was only a little sand strewn over the newspaper and not much good came of the operation. I tried these too (Group B) with worsted worms. They seemed to give complete satisfaction, and there was many a stern chase after the fortunate possessor of an inch of worsted. I tried them again with cinnabar caterpillars, of which they took scarcely any notice. None were seized. I threw in a lump of sugar. The chicks stood round it, uttering the danger note. Then some ran at it, pecking rapidly and withdrawing in haste. They deal thus with moderate-sized suspicious-looking objects.

Ducklings.—On repeating again the experiment with the empty tin they soon left it, and did not squat down in it at all. But when I poured in water they ran to it at once.

TENTH DAY.—*Chicks*.—I took two of the chicks to the yard from which the eggs were obtained, and opened the basket, in which I had carried them, about two yards from a hen which was clucking to her brood. They took no notice whatever of the sound. They were not in a frightened condition, for they jumped on my hand and ate grain off it, scratching at my fingers. I put them with a hen in a small fowl-house. They did not seem frightened, or, if at all, but little. To those that remained I took back a large humble-bee. One darted at it, giving it a sharp peck, and throwing it disabled to one side.

Ducklings.—One of the ducklings seized the disabled bee, and, after mumbling it for some time in the water, swallowed it.

THIRTEENTH DAY.—I took the remaining chicks to the yard. A hen in a fowl-house was clucking eagerly to her young brood. The chicks were put down outside, out of sight of her. They took no notice whatever of the clucking sounds she made, but scratched about around me. They were then placed among her brood. She seemed inclined at first to drive them away, but afterwards looked more kindly on them. But they did not keep close to her like her own brood. I went over to see them next day. One was at some little distance from the hen. I leant down and held out my hand. The little thing ran to me and nestled in my palm.

The sounds emitted by the chicks are decidedly instinctive, and some of them are fairly differentiated. At least six may be distinguished. First the gentle piping, expressive of contentment. It is heard when one takes the little bird in one's hand. A further low note, a sort of double sound, seems to be associated with extreme pleasure, as when one strokes the chick's back and cuddles it. Very characteristic and distinct is the danger note—a sound difficult to describe,—perhaps somewhat as if a miniature policeman's rattle were sprung inside the chick's head. This is heard on the second or third day. If a large humble-bee or a black-beetle or a big worm or lump of sugar, or in fact anything largish and strange be thrown to the chicks, the danger note is at once heard. Then there is the cheeping, piping sound, expressive, apparently, of wanting something. It generally ceases when one goes to them and throws some grain or even stands near them. My chicks were accustomed to my presence in the room, and generally were restless when I left them and made this sound. Then there is the sharp squeak when one seizes them against their inclination. Lastly, there is the shrill cry of distress when, for example, one of them is separated from the rest. I have very little doubt that all of these sounds have, or soon acquire, a suggestive value of emotional import for the other chicks, Certainly the danger note at once places others on the alert. But the suggestive value seems to be the result of association and the product of experience.

The foregoing observations I have presented much in the form, though with many omissions, in which they were noted down at the time; hence much crudity of expression. They appear to me to suggest—

1) That there are many truly inherited activities performed with considerable but not perfect exactitude in virtue of an innate automatism of structure.

2) That associations are formed rapidly and have a considerable amount of permanence.

3) That intelligent utilisation of experience is founded on the associations so formed; such associations being a matter of individual acquisition, and not of inheritance.

4) That there is no evidence of instinctive knowledge, even in a loose acceptation of this word. This follows from the non-inheritance of associations of impressions and ideas. *Co-ordination of activities* is thus apparently inherited, but *not correlation of impressions and ideas.*

5) That even the inherited co-ordinations are perfected and rendered more effective by intelligent guidance.

6) That imitation is an important factor in the early stages of mental development.

7) That the inherited activities on their first performance are not guided by consciousness, though they are probably accompanied by consciousness. The *rôle* of consciousness is that of control and guidance. Only on the first performance of an inherited activity is the chick a conscious automaton. In so far as the activity is subsequently modified and perfected by intelligence the agent exercises conscious control. If we then term it an automaton, we

must admit that the automaton has a power of control over its actions in accordance with the conscious concomitants of certain cerebral changes. Into the physiological mechanism of control, as I conceive it, I cannot enter here.

CURRENT TOPICS.

THE doctrine of protection to American industry has invaded the domain of theological economy, and threatens the canonisation monopoly that for a long time has been enjoyed by Italy. Not long ago, a South Carolina gentleman by the name of Collins presented a new church to the colored Episcopalians of his town, and according to Episcopalian custom they proceeded to give it the name of a saint, but after considering the claims of all the saints in the calendar the congregation finally rejected them all. With pious gratitude they dedicated their house of worship to their American benefactor and called it Saint Collins's Church, a name by which it will be known henceforth and forever. The patriotic sentiment that goes by the name of "America for the Americans" applies to saints as well as to other foreigners, and the colored men of South Carolina have given it actual form. Heretofore we have imported all our saints from foreign countries, instead of encouraging the development of native saints among ourselves, but hereafter we shall have our own muster-roll of the beatified, and we shall fill it with American examples. In making a saint of Mr. Collins, the recipients of his bounty have not canonised a myth nor an abstract ideality, but an actual breathing man whose claims to saintship are based on living deeds, that visible and practical test by which all saints must ultimately stand or fall. They have a saint in England by the name of Lubbock, a member of Parliament, who made one day in every summer-time a holiday which in the calendar of labor is called Saint Lubbock's day. The new religion will have new saints, like Saint Lubbock and Saint Collins, and the present sainthood will pass into the shades of antiquity with Saint Hercules, Saint Ceres, and Saint Mercury.

* * *

In one of the early numbers of *Punch* I have seen a picture of an organ-grinder who stands in front of a London mansion unwinding torment from his dismal box wherein the discords play. A servant comes down the steps and says: "My good man, here's a sixpence for you; there's a sick lady in the house, and master says, will you be kind enough to move on." To this the wandering minstrel answers: "When there's sickness in the house I never move on for less than a shilling." This beautiful principle appears to animate the different "armies" that are marching from various parts of the country to reinforce Coxey in his raid on Washington. They never move on for less than plenty to eat and their travelling expenses. These they readily obtain because every community is happy to welcome them to the next town, and will cheerfully bribe them to go. This liberal and philanthropic spirit is finely developed in San Francisco, as will appear from the following dispatches from that city, dated April 16: "The authorities are arranging to send five hundred unemployed to Chicago via Mojave, for $2,000. Three hundred members from the second regiment of the industrial army of California marched to the City Hall this morning and applied for assistance. Mayor Ellert and Chief of Police Crowley called upon the Southern Pacific officials, and the railroad company is expected to take the men as far as Mojave, where they can be turned over to the Atlantic and Pacific." Such disinterested magnanimity will be appreciated by the citizens of Chicago. This town is trying to outnumber the population of New York before the time for taking the next census, and this contribution from San Francisco will be gratefully received. If the people of that remote village have any more "industrial regiments" that they are anxious to get rid of at six dollars and sixty-six cents a head, Chicago will gladly take them at that price.

Like a stiletto drawn suddenly from under a cloak, the speech of Senator Hill flashed upon the eyes of the Democratic party, and the stroke that followed made a painful wound; so sore, indeed, as to leave a suspicion that the barb was poisoned. From the organs of his party, acrimonious retorts fell in showers upon Hill, and broke like putty-balls fired at an iron-clad. The stock flatteries, the "Judas Iscariot" and the "Benedict Arnold" comparisons were soon exhausted, and then the angry editors fell back upon their own resources and invented such original compliments as they could: "Out upon him," says the melodramatic *World-Herald* of Omaha, "Out upon him. He is not a Democrat"; and it says that as confidently as if there were any people in Omaha or in any other country who know what a Democrat is. With dignified contempt the *Jacksonville Citizen* describes the oration of Senator Hill as "vaporing rant," and in a tone of high tragedy the St. Louis *Post-Dispatch* proclaims that Senator Hill is "bloodless as a turnip and heartless as a clam." Having sacrificed the principle of the Wilson Bill for the vote of Senator Hill, the Louisville *Courier-Journal* complains that the Democratic party has been cheated in the trade; and that oratorical organ sorrowfully says, "Was not the fundamental principle of free collars and cuffs ruthlessly sacrificed in order to placate the New York Senator? And so we lose collars and cuffs and honor all alike." This is a humiliating punishment, but it ought to fall upon any party so abandoned as to ruthlessly sacrifice "the fundamental principle of free collars and cuffs." The *Toledo Bee* sharpens its nimble sting and hums in the ear of Senator Hill after the style of Elijah Pogram, thus: "Hill is a creature of the money-bags of the East. His is the Democracy of the East, the Democracy that knows no nation but New York; the Democracy that cannot understand the greatness, the incomparable beauty and grandeur of a country lapped by the Atlantic and Pacific, the great lakes and the gulf." And while the Atlantic and Pacific and the great lakes and the gulf are lapping the country, Senator Hill, admiring his mischief, smiles his own sardonic smile.

* * *

Last Wednesday, the national debating society at Washington spent a pleasant afternoon in proving to the satisfaction of the country that the "two great parties," although differing here and there in theoretical politics, practise the art of statesmanship in precisely the same way. The managers of the two rival corporations exhibited the inside wheels and pulleys of the two "machines" by which their party-work is done; also, they showed in a very interesting way that both of them are built on the same pattern, and that the only way to tell them apart is by the label or trademark tacked on each machine. Mr. Quigg, a Republican member from New York, moralising like a preacher, exposed the political wickedness of appointing Mr. Van Alen ambassador to Italy in return for $50,000 contributed by Mr. Van Alen to the Democratic election fund; whereupon Mr. Meredith, a Democratic member from Virginia, promptly "saw" Mr. Quigg, and "raised" him $350,000, by referring to the story that Mr. Wanamaker had contributed $400,000 to the Republican election fund in 1888, for which benevolence he had been appointed Postmaster General. The comedy of it lies in the impudent affectation by either party of moral superiority over the other, when it is notorious that both of them have raised corruption funds by selling the offices of the government; and the practice will continue so long as party loyalty excuses what public morality condemns. Should a vote of reprobation be called for, we know without counting the ballots what the division would be; the Democrats would censure Wanamaker, and the Republicans would condemn Van Alen, like the partisan man-worshippers who declared that Mr. Beecher was innocent, although they thought the testimony against Mrs. Tilton was very strong.

The schoolboy nonsense known as "filibustering" has met with a check in Congress by the adoption of the tyrannical plan of counting a member as actually present in spite of his own declaration that by a psychological fiction he is absent in the East Indies, in Kamschatka, in China, or perhaps in Kalamazoo. The sport called "breaking a quorum" consists in this, that if you are a member, you have besides your pay the fun of being present and absent at the same time. Your body may be in your usual seat visible to the Speaker and "palpable to feeling as to sight," while your Mahatma, or the voting spirit is out on the raging sea. The rule of stultification declared that the only way to learn whether a member was present or absent was by asking him, and if he said yes by answering at roll-call, he was to be considered present, and it was the duty of the Speaker, like the captain of a ship, to "make it so"; but if the member made no answer, and stood mute, his very silence was conclusive proof that his Mahatma had fled from the Capitol, and he was reported absent. It was rather stupid and expensive too, but that's the way they "broke a quorum" and the heart of the majority. When Mr. Reed was in the speaker's chair four years ago, he actually counted as present all the members he saw present in the body whether their Mahatmas were there or not, and his very sensible plan was called arbitrary, tyrannical, despotic, un-American, even "Rooshan," and Mr. Reed was called the "Czar." He was put in the national pillory, and every stump-orator of the opposite party pelted him from the beginning to the end of the campaigns. Grim triumph made the face of Mr. Reed shine like a full moon the other day when he saw his critics with funeral solemnity adopting the methods of the "Czar," and actually claiming a Democratic patent on the scheme. It was wonderful to see the nerve of Mr. Wise, who had the daring to show from the records that Mr. Reed was not entitled to credit for counting members to make a quorum, that the "Czar" principle was first advocated in 1880 by Mr. J. Randolph Tucker, a Democrat from Virginia, and that it was then vigorously opposed by Mr. Reed. Mr. Wise was historically correct, but in 1880 Mr. Reed was in the minority, and it was then his business to denounce the majority for its encroachments upon the liberty of members to be in two places at once, or present and absent at the same time.

* * *

The wedding at Coburg was a brilliant spectacle, and merely to read the dazzling account of it in the papers makes the eyes blink as they do when we try to stare out of countenance the noonday sun. Imperial diadems and royal robes, epaulettes, and plumes, diamonds, and pearls, poems in embroidery and lace, gave majesty and splendor to the ceremonial, while the rulers of half the world were there to sanction the festival and emblazon it with royalty. The German Emperor was there, with his mother the Empress, and his grandmother the Queen of England. The heir to the Russian throne was there, and princes and dukes more numerous than they are in a fairy tale. I have seen the valley of diamonds at the play, and I think the chapel at Coburg must have been something like that. A ticket to the Coburg wedding would have been almost a title of nobility in itself, but such luxuries are not for me. Many a time I have wondered how it feels to be a king, or a prince, or a grand duke, and the next time I meet one of those glittering demigods I will ask him. We have hundreds of them in Chicago so that I shall have no trouble in getting correct information, but I imagine that the feeling of superiority and exaltation must be delightful as the dreams that opium gives. There are more princes at Chicago now than at Coburg; and among them are three or four whom I have the happiness to number among my personal friends

* * *

It will appear as a strange historical coincidence that at the very time those imperial and royal potentates were gathered at the marriage feast in Coburg, a company of equal style and dignity was assembled in Chicago; not at a wedding, indeed, but at the Masonic Temple, giving royalty and splendor to the "Thirty-ninth Annual Reunion of the Ancient Scottish Rite." The stately titles of the visitors who attended the respective celebrations were singularly alike both in sense and sound, but whatever pre-eminence was visible in this respect, Chicago had it. According to the papers it appears that while the wedding was going on at Coburg, "Chicago Council of the Princes of Jerusalem was in session at the temple; not at the temple in Jerusalem but at the temple in Chicago, under the direction and command of Chester T. Deake, sovereign prince of Jerusalem, and James F. Church, High Priest, and thrice potent G. M." I do not understand the cabalistic signs, but I think G. M. are the proper heiroglyphics that stand for Grand Mogul. All the Chicago princes are not of equal rank, for they are classified into three grades, sovereign, illustrious, and sublime. With reverential awe we read that "Gourgas Chapter assembled at five o'clock, with Illustrious Prince John A. May presiding, while Illustrious Prince James B. McFatrick occupied the throne of the Grand Pontiff," wearing, I suppose, the triple crown upon his head. George W. Warville, "Sublime Prince of the royal secret," wearing the shining jewel of his rank, bestowed some high degrees upon aspiring princelings; and after conferring upon the sublime, illustrious, and sovereign brethren the knighthood of the white and black eagle the conference adjourned. An old army comrade of mine is a hatter in Chicago; a knight of the black eagle, and a sovereign prince of Jerusalem; but yet, when you go into his place to buy a hat, he is as affable and condescending as any common man.

M. M. TRUMBULL.

NOTES.

The Open Court Publishing Co. is now publishing a new, authorised translation by Merwin-Marie Snell of the eighth edition of M. Ribot's famous monograph on "The Diseases of the Will," the conclusions of which are contained in M. Ribot's article on "The Will" in this number. The Open Court Publishing Co. has also published "The Diseases of Personality" and "The Psychology of Attention." No better introductions to the science of psychology can be found than these little books of the great French psychologist, all of which are to the point, and not overladen with special discussions. In Mr. Snell's elegant and graceful translation of "The Diseases of the Will" the reader will have a perfect equivalent of the original, enhanced by the fact that all the citations and authorities of the original, many of which were faulty, have been recompared and verified.

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SUGGESTIONS TOUCHING MATTER AND ENERGY.

BY PAUL R. SHIPMAN.

We speak of matter and energy or force (I use these two latter words interchangeably for the purposes of this article) as if they were essentially different, when, in fact, it should seem, they are essentially the same, differing in mode only.

Speaking roundly, as well as figuratively, we may call matter funded energy—energy current matter; or matter we may distinguish, roundly, as visible energy—energy as invisible matter. Take, for example, the clod at your feet. It is matter, you say; yet analyse it, pushing the analysis as far as you may, and you get nothing but modes of energy, with a residuum that offers nothing different. Nevertheless, these parts together make the clod. Whither does this unquestioned fact point, if not to the conclusion that matter and energy are in essence the same? Nothing but energy can be got out of matter, because matter is nothing but energy more or less compounded, as energy is nothing but matter more or less resolved. Matter, one may say, bears the relation to energy, always speaking roundly, that a stocking bears to the thread of which it is knit: ravel matter, and you have energy—knit up the ravelling, and you have matter again. Energy is the simpler state of the common substance—the raw material, as it were, of which matter is the elaboration in greater or less degree.

But if matter and energy are essentially the same, it may be asked, what becomes of the vehicle of energy? The metaphor is superseded. If energy is a form of matter, it is its own vehicle. The notion that matter is the vehicle of energy is possibly a good enough working-notion for physicists, in the present state of physics, but has as little philosophical value as the notion that ice is a vehicle of water, or water a vehicle of vapor. It is secondary, not to say illusive. It relates to states of matter, without approaching its essential form; it sticks in the outer bark of things. Matter might be described as fixed energy, and energy as free matter; but this distinction, like every other of which the case admits, is accidental only. No energy can be absolutely free; no matter can be absolutely fixed—not even that which Professor Dewar, if one may credit the exultant foes of matter, is about to lock in the cold embrace of molecular death.

If matter and energy are one, the questioner may persist, How is it that, in a given material system, the energy disappears, while the matter remains? The energy does not disappear, nor does the matter remain—if the definite article is used to signify the whole of either in the system; the energy that disappears carries with it a corresponding part of the matter, in the action whereof it consists, the matter, under stress of position, no more remaining intact than musk remains intact while diffusing its odor through a room, though the nicest balance may fail to detect the slightest loss of weight in either. In fact, the energy and the matter equally disappear—equally remain.

Energy is something moving—not the *effect* of something moving, but the *fact*. The degree of energy depends on the mass of what is moving, and the velocity with which it moves; but the energy itself consists in the moving or resisting something that is another name for existence—matter in its elementary state. Matter is not moved; it moves—is essentially active, not passive. Motion is neither an accident nor an attribute of matter; it does not belong to matter, for without it matter would have no existence, and a thing cannot, speaking accurately, possess itself or a constituent of itself—cannot be at the same time both possessor and possession. Indeed, the prevalent conception of subject and attribute, in general, not only has no objective reality, but involves this contradiction. Motion is an essential part of matter, as energy is the essential mode.

What cannot resist does not exist. Matter, it is true, exists in states wherein it is so fine and imponderable as not to offer sensible resistance, but it must be convertible into states in which it does offer sensible resistance, or cease to exist. The principle holds good everywhere and always. The *unseen* is real, provided it is convertible, theoretically or practically, into the sensible; but not otherwise. The idea that the unseen is the only real, or pre-eminently the real, is philosophico-romantic bosh. The divisibility of matter soon carries us indeed beyond the reach not only of the senses, but of the subtlest instruments by which the senses can be implemented; yet, however far it

may go, it can never carry us beyond a point at which the parts are reconvertible into the sensible whole from which they were resolved. Not the absolute unseen, but the sensible, actual or possible, is the only real. The insensible is conceivable only in terms of the sensible, into which, if real, it is transformable. Cognition of the insensible supposes cognition of the sensible, conception being possible only within the limits of possible perception. Let this truth be firmly grasped. The intellectual currency that is not redeemable in the standard coin of the realm of sense is worthless. What cannot be translated into resistance has no existence, no reality, no meaning, is nothing. Whatever resists exists, and, conversely, whatever exists resists. Resistance and existence are interchangeable terms; but resistance is synonymous with energy or force, which is the stuff of sensible matter—that of which sensible matter is the more or less complex form. For existence, be it observed, though fundamentally one, is divisible superficially into ponderable matter, or matter so named, and imponderable matter, or energy, whereof each is transmutable into the other, the two mutually blending to form the sum-total of reality.

There is thus no escape from the inference that the consumption of energy is the consumption of matter. Every act, for instance, of what we call consciousness, but which is really nothing more than a special form of interaction or responsiveness, infallibly wastes the matter of the brain, determinably or indeterminably, as exhalation wastes a grain of musk, which, notwithstanding, experiment has shown, weighs a full grain at the end of a generation. No atom moves without loss of substance; for, whatever view one may take of the relation of energy to matter, it is admitted on all hands that they uniformly vary in mutual correspondence, every change of either synchronising with a corresponding change of the other. The vibration of an atom, therefore, is attended by the expenditure of both, on any hypothesis. The table on which my eyes now open is not, in rigorous exactness, the table on which they shut an instant ago, for, even in the twinkling, it has felt that hand of change, inevitable, irresistible, irremovable, which, sooner or later, come what may, will destroy its formal identity, reducing it to its elements, and dispersing these. The distinction between reality and appearance that once cut a figure in metaphysics resolves itself into a simple distinction between the more or less permanent and the transient, which, though not always equally tangible, are equally real, and in due time equally pass away. It is ever thus; metaphysics propounds riddles, and physics reads them. Some day, thanks to physics, only one riddle will remain; and *that* the world, if guided by a sound philosophy, will give up.

But, says the physicist of to-day, atoms are constant, undergoing no change. No doubt atoms (by which I mean the organised constituents of molecules) are relatively constant, as they are relatively simple; but everything in ceaseless action undergoes ceaseless waste, and, accordingly, is on the highway to dissolution, from which nothing organised is absolutely free. The catastrophe may be remote, and, in the case of atoms, so far as I can see, it would not be rash to admit that it may come only with the general catastrophe of things under the sun, of which, in this event, it would probably mark the crisis, the elements of our system melting with fervent heat, but the atoms last of all—that atoms, in a word, are formed in some stage of the catastrophe which gives birth to a system, and dissolved in the catastrophe which ends it.

All this, however, is consistent with their incessant loss of substance throughout the stupendous interval. An atom, to be sure, is a very small thing, and this interval is indeed stupendous, yet we can fairly assign such a ratio between the momentary waste of the atom and its weight that it might endure without appreciable loss of substance for the lifetime of a planetary system, as well as a grain of musk endures in like manner for the average lifetime of man. A finite ratio, if low enough, would answer the purpose.

Besides, an atom realises, what Webster on a memorable occasion told Hayne, Benton, & Co., that there are "blows to take as well as blows to give," causing substantial gains no less than substantial losses, and reducing the net loss of substance, it may be, to the lowest quantity possible under the law of the dissipation of energy; which would bring the assignment of a proper ratio in the case still more clearly within the limits of theoretical possibility.

For the rest, we may easily make too much of atoms, as members of the cosmos, I apprehend, since the range of existence from the infinite to the infinitesimal leaves us no choice but to admit an infinite range of magnitudes beyond atoms, with some of which, and presumably with the least conceivable of the series, nature gets in her fine work, if not, in a broad sense, her whole work. Compared to these, atoms are worlds. Anyhow, in the analysis of things atoms are not the last word.

One other objection may be anticipated. If matter is resolvable into energy, and, when pressed by analysis, yields nothing else, how can we perceive something resisting, without at the same time perceiving the resistance as resistance? The former is concrete resistance, which we perceive immediately, while the latter is abstract resistance, the product of analysis. Agreeably to a familiar law of mind, not questioned in our time, I believe, we perceive the whole of the object in perception, before we perceive its parts—per-

ceive it generally, first, and specially afterwards. The resisting something that affords our primordial consciousness, presenting itself as external and consequently as extended, is the object thus perceived in its wholeness or generally, before analysis has specialised it, bringing into consciousness the resistance as such. Resistance as such is disembodied motion; but the mind must apprehend motion embodied before it can disembody it. And embodied motion is energy,—living matter,—matter to whose essence motion pertains, and which, accordingly, like Milton's angels,

> "... Vital in every part,
> Cannot but by annihilating die."

Force has been called the primary attribute of body. But in what sense is this true? In a psychological sense purely, according to my judgment. It defines a subjective appearance in terms that have no objective validity. The force which at any given moment a body puts forth, or is fancied to put forth, is a partial resolution of the compounded force composing the body; for though the body and the force it puts forth are of corresponding form and the same ultimate nature, they are not of the same quantity or duration, the greater mass and permanence of the former giving rise to the distinction of subject and attribute—matter and force. The relation of matter and force is indeed the relation of subject and attribute in its most general form, and, what most concerns us here, is non-essential throughout, disappearing in the fundamental unity of things. The difference between a body and the force it is said to exert is at bottom, therefore, purely quantitative; the force is an integrant part of the body.

The plain fact is that energy, as essentially distinguished from matter, is a creature of the imagination, formed by transferring to objective changes the efficiency or causal *nexus* which that power reads into subjective ones—unreal in both: no reality answers to it in either. There is matter or existence or resistance, with its changes—nothing else. This is the bare fact; although men, not appreciating the simplicity of nature, have clothed it with the fig-leaf of energy or force. Philosophy need not tear off this covering. But it is bound to look beneath it. There it will find, if it looks deep enough, not matter and energy, but simply matter in its various modes, whereof the mode that men use the word *energy* to explain is the primary one, though no more distinguishable from the other modes or from matter than the sea is distinguishable from the billows it heaves or from the water that forms it. The primary mode of a thing, like the primary attribute, is really the equivalent of the thing; its primary mode, as comprehending its other modes, being the sum of all its modes, and consequently the thing itself. The primary mode of a thing is the thing in its elements.

In fine, matter and energy are two names for two aspects or two states of the same thing—of that resisting something to which the former of these names is usually given, and may be given fitly enough by synecdoche or comprehension, but for which I think a better name is *existence*, or, better still, *resistance*, each of which, properly considered, has the same extension and intension as *matter* in its figurative sense. Matter in this sense, it will be noted, is indistinguishable from energy, of which matter in its common acceptation is a mode or state, energy itself being the primary state of the fundamental thing. In one of these states or in certain degrees of it, the thing is so massed and complex as to overwhelm imagination; in certain degrees of the other it is so diffused and simple as not only to elude imagination, but to dupe reason, for, while in the former state we all agree to call the thing *matter*, in the latter some of us, misled by its transcendent subtilty, are weak enough to assume that it has become nothing, naming it consequently *immaterial substance, incorporeal agent, hyperphysical being, spirit*, and the like, words that signify nothing—that keep the pledge of meaning to our ear, and break it to our sense.

Mr. Herbert Spencer, in his "Principles of Psychology," has a chapter on "The Substance of Mind," wherein he undertakes to demonstrate, first, that mind cannot be conscious of its substance, and, secondly, that mind is conscious that its substance is immaterial, or, what comes to the same thing, that mind *is* immaterial because it cannot be conscious that it is *material*—about as sleek a bull, to my mind, as ever pastured in the green fields of philosophy. The chapter might put one in mind of the lawyer's famous answer to the complaint that his client had returned a borrowed kettle broken. "In the first place," said he, "the kettle was cracked when my client borrowed it; secondly, it was whole when he returned it; and, thirdly, he never had it." Even Mr. Spencer's conception of the substance of mind is open to question, I think. He holds the substance of mind to be "that which persists in spite of all changes, and maintains the unity of the aggregate in defiance of all attempts to divide it." But "that which persists in spite of all changes" must be either the sum of the changes or the subject of them. If the sum of the changes, it consists of them, and cannot persist in spite of them. If the subject of the changes, it is a whole, whereof they are the parts, independently of which it has no existence, and of course no persistence, in spite of them or otherwise. The subject of the changes and the sum of the changes are in reality one and the same. A thing apart from its modes is nothing. As there is thus no such

thing it cannot be the substance of mind or of anything else, much less that which "maintains the unity of the aggregate in defiance of all attempts to divide it." The latter service, happily, in place of resting with this nonentity, is discharged by the unity of the organism, whereof "the unity of the aggregate" is the expression. The unity of the aggregate, moreover, belongs to mind as mind, and the substance of mind, it hardly need be said, is not mind, as the substance of a watch is not the watch. It is not the substance but the form of mind that gives it unity. The substance of mind, according to my view, I have already said, is ethereal stress,[1] or matter enormously subtile, vibrating with enormous velocity, and of which we are conscious as energy, mind being the specific form of stress determined by the nervous system.

If this be so, the mind, though unconscious of itself, not only is conscious of its substance (of that whereof its substance is a direct portion), but is not conscious of anything else; for visible matter we perceive only through the intermediation of the invisible matter that we call energy. The unseen is not more or less real than the seen, yet it is only the unseen (the *unseen* not the *insensible*) that we perceive immediately—of which we are conscious in the strict meaning of the word. Strictly, I am not conscious of the pen in my hand, but only of the wave lengths that it propagates to my sensorium, and which, by a train of reasoning, I trace back to it, synthesising them into the symbol of it. Of these vibrations, forming the immediate object of perception, I am momently[2] conscious through the sense of resistance—the sense that, in my opinion, comprehends all the other senses, and is in reality the fundamental mode of consciousness, every possible object of which, by the bye, in all its modes, is external, the idea that a state of consciousness is or may become an object of consciousness being a sovereign absurdity. But I am here anticipating a discussion whereon I do not now propose to enter.

Having been betrayed into saying thus much, though, I may be allowed to add certain precautionary remarks. (1) Touch, I hold, may be analysed into resistance, as certainly as the remaining senses may be analysed into touch; resistance is the essence of all the senses—is for that matter the essence of mind. (2) The part commonly assigned to muscular tension and volition in the perception of resistance seems to me unwarranted; they are needed to measure resistance, but not to perceive it. (3) What Kant called the vital sense, including the sense of temperature, the sense of health, the sense of hunger and thirst, and so on, is no more than a consciousness of the several organic states which these names connote, and which do not require a separate sense, any more than hunger requires one sense, and thirst another. The same is true of muscular movement and muscular tension, which call for a muscular sense as little as love calls for an erotic sense (the elder Scaliger thought it did), or hate for a demonic one.

Consciousness in truth is its own sense, and (subjectively speaking) there is no other, what are called the senses being simply modified parts of the bodily surface, facilitating the communication of external objects with the brain centres, but ending where consciousness begins—gateways to consciousness, which, however, may be entered without trouble over the fence, through the fence, and under the fence, as well as by these "portals of the soul." Things open avenues to consciousness, or lines of least resistance, which they ordinarily travel; but, when greatly excited, they sometimes cut across lots, making nothing of barriers—strong feeling is apt to revive old habits. Yet so long as a thing gets there, and brings out from the brain that reaction or response wherein consciousness essentially consists, it matters little whether it goes by the highway of the senses or through the fields of general sensibility; the point is that consciousness is accessible both ways, and, when accosted by an object approaching either way, is (like Hamlet adjured by his father's ghost) "bound to hear." The refinings of science are very well, but so is the simplicity of philosophy, to which, one should never forget, they may all be reduced; fundamental truth is the pole-star of the thinker, and he who would not lose himself on the trackless sea of knowledge must habitually recur to it, as the mariner to his compass.

In closing this article, I may venture to recall a remark or two of Mr. Spencer's, bearing especially on the subject of it. Our experiences of matter, he observes, are "resolvable into experiences of force," adding, in another connexion, that "resistance is the primary attribute of body." If by *force* Mr. Spencer means only matter in a finer mode than that to which we ordinarily give the name, (force in the sense in which I have sought to present it,) his posi-

[1] Here obviously is an opening for the telepathist, who may suggest that ethereal stress bears the same relation to mind as the physicists say it bears to electricity—that, although it cannot think or conduct thought, it may conduct the peculiar stress set up by the thought of one mind, and capable of reproducing it in another, no matter how distant. The suggestion, it seems to me, I confess, conflicts with no known fact or principle, but rather accords fundamentally with all the known modes of communication from mind to mind. The difference, so far as principle is concerned, between communicating an idea through the air, by actual articulation, and through the ether, by ideal articulation (we think in words), is not apparent. Why may not the subtler determination, in exceptional circumstances, pass by the subtler medium, as well as the coarser determination, ordinarily, by the coarser medium? Be this as it may, the marvels of the so-called spiritual world, it is my undoubting faith, are solely due to what we call matter, whose properties will be found sooner or later to account for all of them that are real.

[2] In developed mind, psychologists agree, the immediate object of consciousness, as a fleeting step in the process of acquired perception, excites no attention, and immediately lapses out of consciousness, presenting a case under the familiar law o obliviscence.

tion is merely a paradox—false in appearance, but true in fact; but if he means by force something immaterial, the position, I hope I may be pardoned for saying, is not a paradox, but an absurdity. For, granting that a thing may be the attribute of that which is resolvable into it, nothing can be resolvable into it without community of nature with it, such as does not exist between the material and the immaterial. If force is immaterial, and matter is resolvable into it, matter not only is destructible, but is destroyed wholesale every instant—nay, it does not exist at all, for, in this case, *matter is immaterial*. The mutual convertibility of all things existing is a corollary from the principle of which the conservation of energy and the indestructibility of matter are phases; so that if but an atom were immaterialised the whole world would run out of existence through the aperture—a single point of absolute nothing would empty the universe.

This topping contradiction of *immaterial matter* I see only one way to avoid, which is a recognition of the fact that matter and energy are interconvertible states of the one fundamental existence. Assuredly, if force is immaterial, neither of Mr. Spencer's remarks can be true. Matter, in that case, is not resolvable into force, as I have pointed out; nor can force be the attribute of matter, for a substance is equal to the sum of all its attributes, as a whole is equal to its parts, and a material whole cannot be made up of immaterial parts. Assume that energy is an immaterial effluence of matter or in harmony with matter, and you at once sink out of sight into a bottomless quicksand. Grant that it is a material agency, and, in my conviction, you stand on solid ground, with the key to a consistent and complete explanation of world phenomena. And there seems to me to be no third position. Existence is an inscrutable fact—inscrutable because infinite, the properties of infinite existence requiring for their manifestation infinite time and space, which no finite being may compass; it is the one mystery, if we may with propriety call that a mystery which is the principle of explanation—that into which we resolve things to explain them. To this one mystery immaterialism or unresistantism adds two other mysteries, which, however, may be reduced to one—namely, the action of a thing *where* it is not, by something else that *is* not. To say the least, this is unphilosophical. It falls under Occam's razor, not to mention the bludgeon of common sense. It is an obvious form of the doctrine that in our day has become, justly, the especial opprobrium of philosophy—dualism. On the other hand, resistantism, by whatever name distinguished, leaves the one mystery in its awful singleness. It is monism—monism pure and unqualified—monism in the full length and breadth and depth of the term.

THE WRONG METHOD OF HENISM.

We publish Mr. Paul R. Shipman's article, not because we agree, but because we disagree, with him. The line of thought which he follows is exceedingly suggestive, but we regard his methods, not less than his results, as faulty. He aims to construct a monistic system, "monism pure and unqualified," as he calls it; but his philosophy is what in previous articles we have characterised as Henism,[1] or a single-concept theory, which in utter disregard of the nature of abstraction selects some one general term and subsumes under it all other ideas, whether or not they belong to its category.

A few paragraphs quoted from the "Primer of Philosophy" will suffice to explain the nature of abstraction:

> "The importance of understanding the process and scope of abstraction is very great, for abstraction is the very essence and nature of man's method of thought. . . . Abstraction is a very simple process, and yet some of the greatest philosophers have misunderstood it. . . . The greatest difficulty for a child when he learns to walk is, not to stumble over his own feet. Similarly, the greatest difficulty with philosophers is, not to stumble over their own ideas. . . . The very existence of many problems proves how little the nature of abstract ideas is understood. There is, for instance, the question which has again and again been raised, whether the soul can be explained from matter or energy. The question itself is wrong, and proves that the questioner stumbles over his own ideas. We might just as well ask whether matter can be explained from energy, or energy from matter. Matter and energy are two different kinds of abstraction, and feelings, or states of consciousness, are again another kind. We cannot explain an idea by confounding it with other heterogeneous ideas. What should we say, for instance, of a man who spoke of blue or green ideas, or who attempted an explanation of mathematical problems from the law of gravitation? What should we say of a philosopher who sought to determine whether ideas could be explained from the ink in which they are written?
>
> "Our abstracts are stored away, as it were, in different drawers and boxes. Any one who expects to solve problems that confound two sets of abstractions, has either stored his ideas improperly, or searches for them in the wrong box."

Henists are philosophers, who, in their efforts to be monists, store away all their notions in one box, be it the category of matter, or of energy, or of spirit, or of whatever else, instead of distributing them in the places where they belong.

For our present purpose it is indifferent what definition of matter we adopt. We may define it with Kant as that which affects or can affect the senses, or we may, with the physicists, say it is that which can be acted upon by or can exert force. It is true that all our experiences are possible only because we exert force and meet resistance; reality consists of action and reaction, it is, as the Germans so appropriately call it, *Wirklichkeit*. But for that reason we cannot say that everything is resistance. We must

[1] See *The Monist*, vol. iv, No. 2, "Monism and Henism."

not forget the nature of our abstract terms. To say "matter *is* resistance" is at once a mistake. We ought to say "matter is that which resists"; for it is not the act of resistance, but that enduring something which resists. Professor Mach in his definition of matter, "zu dessen Wahrnehmung *nur* die Wirksamkeit der Sinne erforderlich scheint," very guardedly adds and italicises *nur*; for forms and motions are also perceivable by the senses; yet neither forms nor motions are matter, for indeed they are not perceivable by the senses *alone*; an element of memory and mental observation enters into the ideas of form and change of place; they are not products of mere sensation.

When we make the abstraction "matter," we select certain features of our experiences, and drop all others. When speaking of the matter of which a man is composed, we advisedly omit his feelings, his intelligence, his character, his plans, and purposes, and so forth. When speaking of motion, we mean change of place, and not mass, not matter, not spirit, nor anything else; when speaking of force, we refer to that which can produce motion and overcome resistance.

This seems clear enough, and yet how much is this elementary rule of thinking sinned against! There are plenty of henistic philosophers who are satisfied they are monists as soon as they have stored all their ideas into the one box of their favorite generalisation. Whenever they try to think their ideas to an end they become entangled in contradictions, and seeing no way out of it, they naturally turn agnostics.

Mr. Shipman's method is henistic, and we may characterise him as a materialistic agnostic. In former articles he propounded the theory that there is but one reality, viz., matter, and that is unknowable and mysterious. To-day he presents us with a number of conundrums which grow out of the henistic principle of his method. We are told that "matter and energy are in essence the same." "Force is material," yet at the same time "matter is immaterial." This being so, the old refrain follows: "Existence is an inscrutable fact."

That any one could regard "change of place" as a material thing seems impossible, but such is the consistent sequence of Mr. Shipman's materialistic henism.

There are a number of minor points in Mr. Shipman's article; e. g. "energy is something moving," while it is the actual or potential moving of something; matter and energy are "transmutable each into the other," which is a new law that if true would produce changes more wonderful than Aladdin's lamp; "energy is a form of matter, and is its own vehicle"; which sounds like, "a blow is the fist which deals the blow, and a blow is its own striker"; "no atom moves without loss of substance," an observation which, for all we know, might prove true, but where is the verification of this startling proposition? Shall we believe that the ether profits thereby and is thus constantly increasing, or is this loss of substance an absolute loss so that in the long run the world would dwindle away? "What cannot be translated into resistance has no existence." Can we translate the theorem of Pythagoras into resistance, or the ideas of truth, beauty, and righteousness? And as we cannot, have they, therefore, no existence?

It would take more space than editorial considerations will permit to unravel the stocking so ingeniously knit from the yarn of a thin philosophical abstraction. Nevertheless, who will not find much food for thought in Mr. Shipman's article, which deals with problems which prove so difficult for many profound naturalists as well as philosophers! P. C.

THE MEANING OF FOLK-DANCE.

BY L. J. VANCE.

Folk-dancing is not an overdone subject. The truth is, not one person in a thousand knows what folk-dances are, what they really mean, or how they reach artistic development.

To-day, when people think or speak of dancing, they have in mind the social dances of the parlor, of ball-room, or of the theatre. But these dances have little or nothing in common with folk-dances, or with the classic dances of the ancients.

The characteristic of folk-dancing is the faithfulness with which it reflects human nature. In this respect it differs from modern social dancing, which is highly artificial in every way. If we look at cultivated people, we see that they take real æsthetic pleasure in complicated steps, in involved figures, and in unusual movement; or, they enjoy the springs, pirouettes, contortions, and high kickings of the ballet-dancer. But, if we look at a savage or a peasant, we see that they derive no great æsthetic enjoyment from these features of the modern dance. We might almost conclude, at first blush, that they have no idea of dancing whatever. And yet, when we examine folk-dances more closely, we find in them a certain æsthetic meaning and significance.

There is much to learn concerning the nature of dancing and of the æsthetic feelings which have always accompanied the dance. As yet little has been done; but enough to show that dancing is of gradual growth, and as an art is subject to a general law of mental evolution.[1]

In this paper I shall attempt to point out some of the æsthetic elements of the dance, and we cannot begin better than by looking at their appearance in the lower animals. The feeling for form, rhythm, meas-

[1] See a paper on "The Evolution of Dancing," by the writer in *The Popular Science Monthly*, October, 1892.

ured sound and motion is found very low in the scale of nature; how low, we do not undertake to say. The æsthetic sense is very pronounced among the birds. Mr. Darwin refers to the rock-thrush of Guiana, birds of paradise, and some others that congregate during the mating season, and then the males show off their plumage and perform dances before the females, which, standing by as spectators, at last choose the most attractive partner. From the taste for bright colors, for musical sounds, and for rhythmical movements we get by sexual selection such highly evolved æsthetic products as the waving plumage of the bird of paradise, the song of the mocking-bird, and the remarkable performances of the spur-winged lapwing. The lapwing display, called by the natives its "dance," requires three birds for its performance. When a visitor comes to a pair, the latter advance to meet it, and place themselves behind it; then all three begin a quick march and keep step to drumming notes.

If the lower animals show a marked æsthetic enjoyment of singing and dancing performances, there is no good reason for doubting that primitive man must have possessed these elements of æsthetic feeling. He must have been endowed with a sense of form and rhythm. He must have been pleased, as Mr. Darwin argues, by musical sounds and combinations, though chiefly in the form of human song and rhythm alone. And he must have been moved to indulge in dancing performances. The spirit that moves men to shuffle their feet, kick up their heels, and leap in the air, comes from different feelings,—now from animal or exuberant emotions and vivacity of every kind, and now from joy and triumph and rage.

The savage's love of the dance is derived from that instinctive delight in form, rhythm, measured sound and motion, which is faintly foreshadowed in the lower animals. So the earliest evidences of derivative æsthetic feeling which we possess are those of rude songs and dances and ornaments. The most naked savage is exceedingly fond of dancing. People so low in culture as to have developed no musical instruments dance with passionate enjoyment to the clapping of hands and the beating of sticks together. I notice in many books of travel and reports that the lowest races of men spend half their time in dancing. Thus, we read that the chief occupation of the Indians of southern California used to be dancing, when the men were not engaged in procuring food.[1]

The part played by dancing in the drama of courtship in most savage communities is not important or decisive. That is on account of the social position of woman. She is won, not by choice, but by force and strength. The men do most of the dancing, but they seldom dance in their love-making. Among many of the lowest races the only love-dances in vogue are those performed by the women, not by the men. Such are the dances of the Polynesians, some of the Indian tribes, and the natives of Tahiti. The semi-civilised peoples of Asia, and to a greater extent the peasants of Europe, have dances of love in which the drama of courtship is set forth—the shy advances, the meeting of the lovers, the maiden modesty and retreat, the proposal, the rejection, and at last the open-armed acceptance. Such, for example, is the Csardos, the well-known folk-dance of Hungary.

There is no question that, from the beginning, dancing has been especially the expression of love and of love-making. The love-notions possessed by folk are pretty uniform in different parts of the world. However much they differ in details, all folk agree in making dancing a necessary part of the drama of courtship. The Greeks regarded Cupid, the god of love, as an expert dancer; and the early painters, in all their pictures of love, figure Cupid ever smiling and looking upon dancers. Burton, in his quaint chapter on "Symptoms of Love," makes dancing the most prominent symptom.[1] It is a sure sign. Dancing still is, says he, a necessary appendix to love matters, and "young lasses are never better pleased than when they may meet their sweethearts and dance about a May-pole or in a town-green under a shady elm."

The folk-dances of love-making have served to quicken the sense of personal beauty. By the common consent of poets, painters, and sculptors, the standard of beauty for mankind is to be found in the form of a lovely woman. So, when dancing falls into the hands of women, it becomes more and more beautiful, more and more artistic.

In different ways has dancing been the means of developing man's æsthetic feelings. This is shown, at first, in the use of ornaments and decorations for the person. Clay and ochre are used for painting or staining the body; perforated shells and animals' bones for necklaces, and so on. Feathers are made into head-dresses by the North American Indians, and into magnificent cloaks by the Hawaiians. Flowers are favorite objects of decoration with the South Sea Islanders and the Polynesians. When the savages dance they always array themselves in fantastic style; they color their naked bodies; they wear wampum beads around the neck, ornaments about the knees or ankles and the waist; they often have large and unwieldy coiffures; they carry carved sticks or wands, rattles, whistles, and weapons in their hands. The habit of wearing painted or carved masks, and the employment of odd, grotesque, or fantastic costumes in the dance is found the world over.

The more elaborate the decoration and the para-

[1] *United States Geological Survey Under Lieutenant Wheeler*, vol. vii, p. 29.

[1] *Anatomy of Melancholy*, part iii, sect. 2.

phernalia, the more important is the dance. The "medicine dances" of the lower races are characterised by a display of color, ornament, and costume. Then, at a higher level of culture, we have the dances with which people celebrate their religious festivals. These are often elaborate and spectacular affairs. Such, for example, is "The Mountain Chant" of the Navajo Indians.[1] This ceremonial, lasting nine days, presents in a dance or series of dances a myth of the Navajos and shows a great advance in dramatic development. In the use of mechanical devices, in the scenic effects, in the skilful jugglery, in the employment of the Shaman, or priest, as stage-manager—in all these we see the germs of the popular drama.

The mystical ceremonies of the ancient Greeks were dances, or series of dances, setting forth the story of some god or some person. Thus, the Eleusinian Mystery was a spectacular miracle-play, representing the sorrows and consolations of Demeter, "She of the harvest-home." At the Bacchic festivals the ancient Greeks were no better than a mob of Navajo Indians. The dancers covered their bodies with the skins of beasts, smeared themselves with wine-lees, put on masks, and assumed the parts of fauns and nymphs and satyrs. And yet, as every schoolboy knows, out of the dances with which the people of Hellas celebrated their religious festivals was evolved the marvellous structure of the Greek drama.

In ancient times, the connexion between dancing and religion was very close. The medicine-men or chiefs of the tribe are the leaders of the dance. According to Mr. Beckwith, "the high priest in the religious ceremonies of the Dakotas is invariably a chief, who, through these dances, retains his influence in the tribe." In India the priests led the dances around the sacred altars. India's heaven was the scene of dancing, and every temple kept its band of dancing girls. The kings of Israel were all distinguished dancers, none more so than David, who danced before the Ark. The Greeks, who were the greatest dancers the world has ever seen, brought dancing to its highest pitch. They made dancing part and parcel of their religion. Plato, in his "Commonwealth," advocated the establishment of dancing-schools in the ideal state. The Romans had dances in honor of the pastoral gods, vine-dances and harvest-measures. "You cannot find a single ancient mystery," says Lucian, "in which there is not dancing."

The connexion between dancing and religion continued even in Christian times. The early Fathers had no serious objection to dancing; in fact, Gregory Thaumaturgus introduced dancing into the ritual. Later on, the Church endeavored to suppress pagan dances, which had become coarse and immodest. On the other hand, she fostered miracle-plays in which moral stories and Bible stories were told to the folk, to the unlettered public. These plays were simply choral songs and dances, and, in some cases, mere spectacular shows. Finally, as a survival of the *autos sacramentales*, or miracle-plays, we have the Corpus Christi dances, which are performed to this day during carnival season in the Seville cathedral. Every evening at five o'clock the little choir-boys dance before the Host.

[1] Described in *Fifth Ethnological Report*, pp. 384–468.

Such, then, is the meaning of folk-dance—passing from the region of history and religion into the region of poetry and frivolity, and thus following a general law of mental evolution, namely, that practices which occupy an important place in the minds and daily doings of people in a savage stage of culture,[1] survive only as matters of amusement, or of æsthetic feeling in a period of civilisation.

CONSCIOUSNESS.

BY CHARLES ALVA LANE.

Sleep said: From thine own soul I loosen thee,
And lo! a sense thou art that sense knows not
To trace the metamorphoses of thought
Within thy spaceless spirit's mystery:
As though a God, with potent alchemy,
Were crystallising Being from the naught,
Behold the phantom-miracles enwraught
Within thy vast of living vacancy:

From dewdrop, pinioned on star-hilted ray,
The thought in mountains 'rose athwart the day;
Then slipt to tone, as touched with alkahest
Through all the mass. It grew a flower straightway,
Or will or pain, but never came to rest,
And on through myriad modes of Being pressed.

[1] Dancing is a very serious affair to the savage. Among the Kwakiutl Indians, on certain occasions, the dancer who makes a mistake is killed. The ancient Mexicans did not mind putting an awkward dancer out of the way.

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GOVERNMENT BY WRITS OF INJUNCTION.

BY M. M. TRUMBULL.

The old self-reliant spirit of the independence days appears to be dying out of our people. From citizens we have turned ourselves into subjects, humbly craving the protection and the correction of government. Our will-power and our work-power are growing feeble, and we pray to be coaxed or driven. Our ancient freedom bows in obedience to the writ of injunction, and when we are not ourselves "enjoined" we are "enjoining" somebody else.

The writ of injunction was formerly a private remedy but it is rapidly becoming a social domination and a political power. Its imperious veto may reach across a continent and subjugate a whole community, as well as a corporation. The injunction issued by Judge Jenkins forbidding the laborers on the Pacific Railroad te leave their work, was the resurrection of the serfdom that was buried long ago, and it gives judicial sanction to the writs of injunction issued by the walking delegates elected by the Knights of Labor. Those comfortable persons who sustain Judge Jenkins have no right to complain when his law is adopted and his methods imitated by laboring men.

The quality of a writ of injunction must be determined, not by its legality but by its morality, whether the source of it be a judge appointed by the President of the United States or a judge appointed by the President of the Confederation of Labor. It is time to arrest writs of injunction and confine them within their ancient boundaries.

Referring again to the writ of injunction issued by Judge Jenkins of the United States court, I wish to place alongside of it the following writ of injunction issued by Judge McBride of the United Mine Workers, and dated Columbus, Ohio, April 18. "Coal must not be loaded for any purpose or for any price (after the strike is inaugurated), but where companies want engines run, water handled, timber or other repair work done, it will be permitted provided the wages are in accordance with the scale demanded by the convention." Now, this is a comprehensive injunction, and a lawyer could not have drawn it better, although Mr. McBride is neither a lawyer nor a judge. He is merely President of the United Mine Workers; and yet, any man who exercises judicial functions, who can issue writs of injunction, and have them obeyed, may very properly be called a judge, and so I leave the title with Mr. McBride.

The day after the McBride injunction was proclaimed, a similar injunction was issued at Minneapolis, not by Judge McBride, but by the judge of another circuit, who forbade any work to be done within his jurisdiction after April the 19th, and the record further says, "A delegation has gone to St. Paul to induce Debs to declare a strike on at St. Paul also. What is that but another way of saying that a delegation has gone to St. Paul to ask Debs to issue a writ of injunction there. I do not know who "Debs" is but I think I shall be safe in calling him Judge, although he may not have any commission or authority from the State.

Another and more practical injunction was issued April the 23d at Chicago by the brickmakers of Blue Island against the brickmakers of the Harland and Alsip yards, and three hundred of the Blue Islanders went over to serve the writ, but in this case there seems to have been a conflict of jurisdiction somewhere for "thirty-five deputy sheriffs each with a rifle firing sixteen shots a minute" were on hand, and they prevented the service. Perhaps the deputy sheriffs had their own writs in their pockets for the protection of the Harland and Alsip yards. And thus it is, that the American republic is gradually becoming in some of its political and social characteristics a government by writs of injunction, one set of judges declaring that the people shall not work, and the others that they shall.

THOMAS PAINE IN PARIS, 1787-1788.

BY MONCURE D. CONWAY.

I have recently made some investigations, historical and topographical, concerning Thomas Paine in Paris, and have some facts and letters, not hitherto published, which will interest American readers.

Paine left New York for France in April, 1787, in a French packet, and passed a happy summer in Paris. He was welcomed by the savants of the Academy of Sciences, who were deeply interested in the iron bridge he had invented, also by his old fellow-soldier Lafayette, and by Jefferson, the United States Minister,

He probably lodged at White's Hotel, as he did when he took his seat in the Convention. Jefferson was residing at Challiot, a suburb now absorbed by the city, not far from the Arc de Triomphe. The main avenue of the Champs d'Élysées had been laid out some years before, and the fountains were playing. Paine one day sent Jefferson the following quaint little essay (unpublished), with neat drawings on it, which is characteristic of his fondness for fancies about nature.

"I enclose you a problem, not about bridges but trees. And to explain my meaning I begin with a fountain. The idea seems far-fetched, but fountains and trees are in my walk to Challiot.

"Suppose Figure 1 a fountain. It is evident that no more water can pass through the branching tubes than passes through the trunk. Secondly, that, admitting all the water to pass with equal freedom, the sum of the squares of the diameters of the two first branches must be equal to the diameter of the trunk. Also the sum of the squares of the four branches must be equal to the two; and the sum of the squares of the eight branches must be equal to the four. And, therefore, 8, 4, 2, and the trunk, being reciprocally equal, the solid content of the whole will be equal to the cylinder (Figure 2) of the same diameter as the trunk and height of the fountain.

"Carry the idea of a fountain to a tree growing. Consider the sap ascending in capillary tubes like the water in the fountain; and no more sap will pass through the branches than passes through the trunk. Secondly, consider the branches as so many divisions and subdivisions of the trunk, as they are in the fountain, and that their contents are to be found by some rule,—with the difference only of a pyramidal figure instead of a cylindrical one. Therefore, to find the quantity of timber (or rather loads) in the tree (Fig. 3) draw a pyramid equal to the height of the tree (as in Fig. 4), taking for the inclination of the pyramid the diameter at the bottom, and at any discretionary height above it (which in this is as 3 and 2).

"As sensible men should never guess, and as it is impossible to judge without some point to begin at, this appears to me that point, and one by which a person may ascertain near enough the quantity of timber and loads of wood in any quantity of land; and he may distinguish them into timber, wood, and faggots. Yours, T. P."

A note of Paine to Jefferson February 19, 1788, shows Paine again in Paris, and in consultation with Lafayette concerning his proposed erection of an iron bridge over the Seine, and this must have been near the date of another little essay sent to Jefferson. It relates to a conversation at Challiot, on attraction and cohesion, and has never been printed.

"Dear Sir: Your saying last evening that Sir Isaac Newton's principle of gravitation would not explain, or could not apply as a rule to find, the quantity of 'the attraction of cohesion,' and my replying that I never could comprehend any meaning in the term 'attraction of cohesion,' the result must be that either I have a dull comprehension, or the term does not admit of comprehension. It appears to me an Athanasian jumble of words, each of which admits of a clear and distinct idea, but of no idea at all when compounded.

"The immense difference there is between the attracting power of two bodies, at the least possible distance the mind is capable of conceiving, and the great power that takes place to resist separation when the two bodies are incorporated, prove, to me, that there is something else to be considered in the case than can be comprehended by attraction or gravitation. Yet this matter appears sufficiently luminous to me, according to my own line of ideas.

"Attraction is to matter what desire is to the mind; but cohesion is an entirely different thing, produced by an entirely different cause,—it is the effect of the figure of matter.

"Take two iron hooks,—the one strongly magnetical,—and bring them to touch each other, and a very little force will separate them, for they are held together only by attraction. But their figure renders them capable of holding each other with infinitely more power to resist separation than attraction can; by hooking them.

"Now if we suppose the particles of matter to have figures capable of interlocking and embracing each other, we shall have a clear, distinct idea between cohesion and attraction, and that they are things totally distinct from each other, and arise from as different causes.

"The welding of two pieces of iron appears to me no other than entangling the particles in much the same manner as turning a key within the wards of a lock,—and if our eyes were good enough we should see how it was done.

"I recollect a scene at one of the theatres that very well explains the difference between attraction and cohesion. A condemned lady wishes to see her child, and the child its mother,—this I call attraction. They were admitted to meet, but when ordered to part they threw their arms round each other and fastened their persons together. This is what I mean by cohesion,—which is a mechanical contact of the figures of their persons, as I believe all cohesion to be.

"Though the term 'attraction of cohesion' has always appeared to me like the Athanasian Creed, yet I think I can help the philosophers to a better explanation of it than what they give themselves; which is,

to suppose the attraction to continue in such a direction as to produce the mechanical interlocking of the figure of the particles of the bodies attracted.

"Thus, suppose a male and a female screw lying on a table, and attracting each other with a force capable of drawing them together. The direction of the attracting power to be a right line till the screws begin to touch each other, and then, if the direction of the attracting power be circular, the screws will be screwed together. But even in this explanation the cohesion is mechanical, and the attraction serves only to produce the contact.

"While I consider attraction as a quality of matter capable of acting at a distance from the visible presence of matter, I have as clear an idea of it as I can have of insensible things. And while I consider cohesion as the mechanical interlocking of the particles of matter, I can conceive the possibility of it much easier than I can attraction; because I can, by crooking my fingers, see figures that will interlock. Therefore, to endeavor to explain the less difficulty by the greater, appears to me unphilosophical. The cohesion which others attribute to attraction, and which they cannot explain, I attribute to figure, which I can explain.

"A number of fish-hooks attracting and moving towards each other will show me there is such a thing as attraction, but I see not how it is performed. But their figurative hooking together shows cohesion visibly. A handful of fish-hooks thrown together in a heap explains cohesion better than all the Newtonian philosophy. It is with gravitation as it is with all new discoveries,—it is applied to explain too many things.

"It is a rainy morning, and I am waiting for Mr. Parker, and in the meantime, having nothing else to do, I have amused myself with writing this. T. Paine."

The use in the above of the phrase "Athanasian jumble of words," more than five years before Paine had expressed any theological heresies, suggests that the conversations between him and Jefferson at Challiot had not been confined to science or politics.

PESSIMISM: THE WAY OUT.

BY AMOS WATERS.

> "I am no optimist whose faith must hang
> On hard pretence that pain is beautiful
> And agony explained for men at ease
> By virtue's exercise in pitying it.
> But this I hold: that he who takes one gift
> Made for him by the hopeful work of man.
> . . . .
> Who clothes his body and his sentient soul
> With skill and thoughts of men, and yet denies
> A human good worth toiling for, is cursed
> With worse negation than the poet feigned
> In Mephistopheles."—*George Eliot.*

Horace Greeley was once asked how he decided the success of his lectures? He replied, "I think I have succeeded when more people stay in than go out." That test of excellence—more staying in than going out—flouts the average pessimist. Is life worth living?—it all depends on the *liver*. If the liver keep his *liver* in fair condition, he is fairly certain to keep his place till the natural end when the peroration of life descends into unbroken silence. It is precisely this crisis of change called death, which the other-worldlings decline to accept without revolt. They hold as valueless the precious labor of the work-days of our existence, if there be no eternity of exaggerated Sabbaths beyond the grave. If the black pall is to blind their eyes to all successions of sunlight and starlight they will refuse to be comforted by the future of humanity. Not for them, to share the promise of human correspondence, when the song of hope from the soul of man is translated in the realisations of the poet's Golden Year. The pessimism of prophetic profitlessness in the matter of post-mortem scrip is unpicturesque.

Less prosaic and sordid is the pessimism of cultured speculation—the concentration of fine sympathies into lament at the barrenness of progress, the inevitableness of evil, and the vast, dramatic sorrow of the world-enigma. The end of the whole matter seems then to be that man is but the fallen god of sublime despair. The voices of the dead ever grow more numerous, and the memories of music fled and the tender graces of days that are no more accumulate till all passion seems lost in annihilation. These are as shadows of fate on the human soul, but the faltering of them is confused with pessimism as a reasoned theory of life.

The pessimist pure and simple is popularly imaged as a malevolent—possibly talented—dyspeptic, with ill-starred designs on the comfortable sanity of the prosperous Philistine. The latter adores *laissez faire* in luxurious privacy. He wishes to be "let alone"—not to have his digestion impaired by the recital of a catalogue of mortal diseases. The Philistine spirit cleaves to light and pleasant fiction—especially in the enthusiasm of excellent dining. In the tranquil season succeeding a dinner decorously conducted, the Philistine distrusts the philosopher more than ever, and regards the philosophic bias as tending to distinct impropriety—stealing the spoons perhaps, or eloping with the lady of the house, whichever the average Philistine might deem the greater calamity.

Pessimism initially is not a distemper of revolt, but a natural incidence of intellectual and emotive influences. Individually, it *may* be an undesirable mood or manner—not necessarily so. A despairing sense of the dreariness and emptiness of life is the legacy of physical suffering—equally of theological misbeliefs to which pertain deliriums, destructive of the homely senses of joy and sanity on earth. Unworthily the

good of this life is outweighed by the adumbrated intoxications of the celestial city.

The seizure of malign vicissitude is upon our modern life, and the Hindu-Germanic philosophy exactly diagnoses the symptoms of evil, and reduces the pressure of weariness in whatever measure the meaning of pain is properly apprehended. Salvation is understanding. Blind leaders of the blind are the optimistic orgiasts of the Hebraistic afterglow. These have not understanding, wherefore instead of redeeming the soul of man they mildew the soul of man. The wave of intellectual sympathy which struck the sensitive brain of the Dantzig misanthrope from remote Oriental meditation, is straining for speculative renewal. The spiritual democracy of Jesus is a destitute alien force. We have loved and wholly lost that supreme, withal so simple soul, that glowed in Nazareth nineteen centuries backward with inexhaustible mysticism and illimitable dreams. The sorrowful fervor of these will influence the soul-organism of the Latin races, in centuries and civilisations yet to come. Yet while the suffering visionary is shorn of his royal sanctions and therefore is but as a fabled remembrance—the lurid perception of evolution has temporarily created another sorrow, another shadow of the spirit. We lament what lies in a receding sepulchre—our eyes are not accustomed to the new illumination. Immortal man is at the parting of the ways—between Christ and science, and reconciled to neither. Therefore in the world-sorrow of the Goethean aroma. More priggish perfumes are abundant—with these pause is unnecessary.

Evolution shall grow more sacred as time lends it consecrated contemplations, but that time is unready. Evolution is not an entity to dethrone paternal providence—it is but yet a lonely enthusiasm, which a devout minority cherished and defended through years of upbraiding. But this enthusiasm may fulfil the fine promise of the first impulse, and develop a devotion to the ideal of progress as far redeemed from our faint endorsement, as complex structures are redeemed from the beginnings of life on primordial shores. The story of the crucifixion was an incomparable drama, but the heart of faith that once responded to it is warming with emotive preparation toward the new ideal, and what seemed incomparable may be wondrously transcended.

Meanwhile, for a space the spirit of man wanders forlorn and bereaved between two worlds—dead faith and hope but instantly born. Between these dim worlds the imperishable instinct of construction hovers like a star. All the emphasis possible to educated sincerity pronounces that Great Christ is dead to dogma. The Syrian stars are oblivious, and look down with shining eyes on an indiscoverable grave. The angels rolled not away the stone from his sepulchre. Ecclesiasticism maintains the idol it purloined and set high in the temple—and the image remains an adamantine sphynx, the symbol of eternal apathy. Whatever there was of genuine beauty, of gentle appeal, of winning tenderness, of suffering devotion, in that storied life of mystical import, is now suspended like an unanswering icicle above the altar of endowed convention. The altar is of stone and the music of its inspiration is the ringing charm of the almighty dollar. The Rock of Ages is a rock of solid gold and around it tempestuously sweeps a flood of ferocity and sick travail. The ministers of hereafter appropriate present advantage—they live on the cross their idol died on.

Evolution, was remarked, is not an entity. Neither is pessimism, or discontent more nebulous. Evolution subdues revolution and recreates pessimism, equally enlarging either in the service of the future. Manifestly the race endures and prospers by the persistence of a Force which is not ourselves—and if it be true that evolution is another name for this persistence of a reality behind phenomena, the meanest imagination will discern the guidance of an ideal at once sovereign and appealing—at once massive and impersonal. Even as coral-insects, so all of human life on this planet may be subject to immemorial pressure, blindly building for a strange and mighty purpose. Look we backward or futureward, all narrow ambition insensibly blends with larger growth. Only the conspicuous intelligence of service is definite. The nomad chief of ancient Israel who died full of years, and sustained only by the consolation that in his children all the nations of the earth should be blessed, represented this truth. The excellence of unselfishness is a religion in itself. "Lay up treasures for yourselves where neither moths nor rust destroy," is a sensual injunction, the negation of ethical grace. Other-worldliness is the evillest, the most voluptuous and languorous worldliness. It is the lust for a good not deserved by righteous labor. Plato in the seventh book of the Republic, pronounces that he who is not able by the exercise of his wisdom to define the idea of *the good*, and separate it from all other objects is sunk in sleep and will descend to Hades. Life is not merely to be profitably lived, but as Aristotle defined it, to be nobly lived, and if evolution have any accessible guarantee of heroic continuity it must be in the contemplation of good without heed to personal advantage—heedful only of membership in the grand historic life of humanity. Simple it is to review the organic communion, as it picturesquely recedes and distantly vanishes beyond the birth of history. But it needs an educative discipline to transcend the strenuous glamours of our immediate outlook, and realise our incalculable littleness along with our immortal greatness, in the policy of impersonal and unremunerating law. Still more difficult is this, when assailed by the morbid despairs that

overtake the wisest and the best—when we asself the gaunt vacuousness of the world, the inscrutable illusions of existence, and the iridescent inutility of our purpose. How difficult then, to emerge into the enthusiasm of understanding and rejoice in the conspiracies trending outside ourselves, toward that "far-off divine event to which the whole creation moves."

It is precisely here that evolution needs a superstructure of vital philosophy. Monistic agnosticism is scientific humility before God, and assures the humility of man—his incalculable littleness. Historic evolution is the visible signal of man's immortal greatness. The individual man stands at night-tide by the sea. The hollow vault above him is stupendously scattered with the starry genius of God—worlds on worlds everlastingly rolling. Carlyle, on a memorable occasion, covered his face as he looked up into the immensities. Heine and Hegel stood together one night at an open window, and the latter sneered, "H'm, the stars are only a brilliant eruption!" Carlyle knew the impossibility of the old faith, he knew not the new faith of science—his vision was smitten. Hegel retreated in a withering cynicism. Carlyle unconsciously fell back on an *ignorabimus*—Hegel in mocking negation. Such sights humble the souls of all but the impervious. But pass into the multitudinous murmurs of the day, the labors and signals of labor, love and the burdens of love, imagination and statecraft all mixed and contending in the complex life of man—here we forget (or act out) abstractions in strong service. Contemplation is submerged in action. We have acknowledged our littleness—we are humble no longer, but assertive, masculine, and potent. The most hypersensitive pass from desolate moods into new accessions of sanity and wisdom. As of the individual, so of the race—pessimism is accidental and transient. The reverence of science and the enthusiasm of evolution, if sturdily apprehended, will uphold the Western races through the tribulations of the intellectual exodus.

Pessimism, therefore, is a mood and not a leprosy—the crown of surrendering love, and not necessarily the penalty of transgression. As a reasoned theory it is one of Truth's innumerable cobwebs, dim with subtle interlaceries. But the stars shine through and brightly contradict phantasmal futilities; and summer blooms with radiant refutations. The traditions of heroic martyrs, and the living breed of noble hearts, surcharge the great organic agencies of the earth with assurance that goodness and gladness are possibilities of life secured by love and labor. Mere happiness is not to be striven for. The "highest happiness" is not attained by seeking, or recognised if attained—it is often akin to sorrow, in that tears and laughter delicately blend. "Those only love who love without hope," said Mazzini, and his thought is true of all provinces in the empire of emotive experience. The wanderer tempted of despair in the wilderness may take heart of endurance if he dwell in his exile on the darkest chapters in the lives of illustrious protagonists. From rifted hearts and doom-distraught souls, with no mirages of immortality to sustain them, rays of ecstasy and joyous melodies have wandered like marvellous ghosts from the old Greek temples, with a message to the repining to be strong and fear not. The world is weary of Hebraism—Hellenism is ready for new impulses. The beautiful old Greek gods have a blessing for penitents. We shall love the mountains and the seas anew, and poets will sing merrily again of youth and godhead, and birds will build their nests on carven Christs when the nails and spectres of Calvary afflict us no more. Heine on his mattress-grave, gaunt and ravaged, yet beautiful, evolved from his luminous brain images of life and love that buzzed forth like golden bees, as Théophile Gautier conceived. If this was possible, pessimism loses the significance of its logical menace. For if singers, in exquisite suffering, have dowered their age with eloquent allegiance to the passion of life, the beauty of love, and the mysterious pity of death, surely science may subdue the tyranny of suffering into service of the social order. Pain is inevitable, but is not the supreme factor in our mortal pilgrimage. And the intellectual or spiritual grandeur which so illy accords with the meanness of opportunity, increases the sum of pain in our tangled circumstances. Pessimism and optimism are equally untenable as theories of life. A workable compromise may be discovered in a coherent social faith which accepts suffering as an incidence to bind man more indissolubly to man. And where the strain is acutest, the strength of this social faith must *strengthen the believer* against the querulous spirit of isolation which justifies the recreant in suicide. In the age, the country, the family, and in sublime resistance to whatever would make for the dissolution of duty, must be wrested the necessity of the sentinel accepting the troublous hour as regal, quite heedless of personal requital. Inveterate culprits will flourish through the ages, but contemporary discouragement does not disprove the great thoughts of the faithful. For the proudest spirit submerged in disaster and prone to claim in defiance not to be judged by the rules of the multitude, there is infinite meaning in the indignant query of George Eliot's "Walpurga":

> "Where is the rebel's right for you alone?
> Noble rebellion lifts a common load;
> But what is he who flings his own load off
> And leaves his fellows toiling? Rebel's right?
> Say rather the deserter's."

Such compromise and social conviction may be resolved by monists, or agnostics, from the theory of existence labelled meliorism. Optimism, which affirms

that pleasurable consciousness overwhelms the displeasurable throughout the universe, so far as we have explored it—and at every accident of time—is impossible for the educated observer of human life. Pessimism, which *per contra* affirms the greatest sum of misery consistent with the conditions of the universe, as we know them—has been reviewed in its various aspects and protean moods, or shadows of aspects and echoes of moods. Bonism, which implies increasing happiness, and malism, which implies increasing pain, are distinct theories without pronounced differences beyond the element of locomotion. Pejorism is too nearly akin to pessimism and malism to need pausing with.

Meliorism—a term invented by George Eliot—affirms that the relative proportions of pleasurable and painful consciousness are ever tending toward readjustment for the good; that it is possible for human effort to diminish the million miseries of life one by one, and above all that science is extending its empire in a plastic world and vitally expanding the hopes and faiths of devoted men. This is intellectually reasonable, and appeals to the best instincts of mankind. To monists, meliorism may be commended as the scientific approach to a saving faith.

THE RELIGION OF ANTS.

Since the holding of the Parliament of Religions at Chicago, the interest in comparative religion has greatly increased. Ancient and modern creeds are now the objects of close investigation, and it is hoped that in time they will all be exhibited in a museum to be erected on the shores of Lake Michigan. It is to be feared, however, that one branch will be neglected —the religion of animals, especially of ants and bees.

An old German professor, Albert Weller by name, one of the liberals of '48, after having retired from public life, sought refuge in the backwoods of North America and devoted the remainder of his life to the study of the various animal civilisations. He must have known many of their languages, for—at least so it is said—he had begun to write a grammar of Comparative Ant-Speech. He observed that ants of one species, if educated from pupahood in the hill of another hostile species, would speak the language of their adopted country and as little understand the speech of their parents and brothers as an Englishman reared by Chinese nurses in the interior of China would understand English. In case of war between the two ant tribes, the transferred ants, although different in size, shape, and color, fight on the side of those whose language they speak, against their own kin whom they resemble so much that no human being could tell them apart. This is only one argument among many which proves how important language is in the life of ants.

It seems that ants have no printing presses, but according to Professor Weller it is safe to maintain that they must possess something equivalent, for there are not only old traditions as faithfully preserved as if they were written down in books, but they have also daily news promulgated in some such form as that of human newspapers. Professor Weller has studied what he calls their literature, and we have no doubt that he knows what he is speaking of.

Professor Weller had intended to visit the World's Parliament of Religions in Chicago to read a paper on ant-religion, but he fell sick before he could announce his intention to the committee, and died. This is lamentable, especially as a few months after his death all his manuscripts were accidently destroyed by fire, and we know only some of the most important statements which he intended to make before the Parliament; and as no system of comparative religion can be perfect which does not at least consider one branch of animal religion, we here reproduce briefly from memory what we know.

The ants have as many and as various religions as human beings, some very primitive, others highly developed. There are also freethinkers among the ants, but Professor Weller's references to them were few.

Our black garden ants were the main subject of his inquiries and experiments. And he found that their sacred scriptures contain a highly creditable religious system. He made a translation of several books of which we recapitulate a few passages. The first chapter of a book called "The Origin of the World" begins as follows:

"In the beginning there was the Arch-Ant, and there was nothing beside Her, neither heaven, nor earth, nor an ant-hill in which ants could sing the praise of the Arch-Ant. And the Arch-Ant begot heaven and earth and upon the earth She made a great and glorious ant-hill, but there was no one who lived in the ant-hill. Then She thought to herself, 'I shall create beings that are like unto Myself,' and She took some grains of sand and formed out of them pupas which She left exposed upon the hill to the rays of the sun. After a few days ants came out of the pupas, some female, some neuter, some male, and peopled the whole hill; and they were blackish in color and like in shape unto the Arch-Ant; and the female black garden ants are the only ones whom She created in Her own image, unto the image of the Arch-Ant. All the other ants, be they red or yellow, are inferior in intelligence and in anthood.

"And the ants enjoyed life and forgot in their prosperity to worship the Arch-Ant. When the Arch-Ant saw that Her creatures cared little for Her, but otherwise everything was well, She retired from the world She had begotten to the Celestial Hill where there is

joy everlasting. From that moment evil originated and all kinds of injurious animals sprang into existence, among which the most formidable ones are the ant-bears with their long tongues and the two-legged giants called men. Among all the enemies of anthood they are the most fiendish and threaten to exterminate all the ants upon the earth.

"Since the origin of men ants began to pray to the Arch-Ant, and the Arch-Ant took pity on the ants and roused prophets in the hill and revealed Herself to the ants. And the prophets of the Arch-Ant said to the ants: 'The evil that afflicts you has been created by your negligence and the Arch-Ant will not undo it. You must suffer the consequences of your sin. But She will have mercy on you and such as believe in Her; She will resurrect them and receive them in the Eternal Hill where they shall have sweet food forever, milch-kine and slaves in abundance.'"

Theological discussions arose and created schisms in the church. Professor Weller mentioned some of them.

There is the sect of the male ants. A male ant began to preach and declared that the Arch-Ant could not be a female, but was most probably a male. He explained that all the misfortunes in the hill originated from the preponderance of the females. He demanded with good logical reasons, equality of the three sexes in politics, economics, and in religion. "Education," he said, "is monopolised by the female and the neuters; and the neuters are only sterile females. No wonder that our race degenerates and succumbs to men and other creatures of evil influence." The sect of the male ants has acquired little recognition. "The idea that the Arch-Ant should be a male individual," says one prominent ant-philosopher, "is so absurd as to be unworthy the trouble of refutation. Not only are the males naturally inferior in everything, but how could they have begotten the world?"

There is another sect called the sceptics. They say, "We cannot know whether or not the Arch-Ant exists, whether or not there is an Eternal Hill above the clouds, whether or not ants will be resurrected after death." Thus, they conclude, "We should worship the Arch-Ant, so as to be on the safe side. But we must not be over-confident in our expectations." The sceptics are suspected of being infidels. Under the guise of a modest suspension of judgment they promulgate indifference in religion.

A third sect maintains that the Arch Ant is neither female nor male, nor neuter. Nor is the Arch-Ant, as the bees maintain, a bee queen. The Arch-Ant, they say, is indescribable, and indeed superior to all creatures, being the creator of all. The adherents of this sect do not deny that the Arch-Ant has begotten the world to serve as a great hill for ants; "the world," they maintain, "exists for the sake of ants," but they doubt the utter uselessness and badness of men, while they insist on the devilish nature of ant-bears.

Some liberal-minded prophets love to speak of the "sisterhood of ants and the motherhood of the Arch-Ant," but they find little support among the fashionable churches, for the race prejudice of the black ants against all other ants is very strong.

Lastly we may mention a very small sect of innovators who are generally considered as what men call atheists. They find an esoteric sense in the traditional religion. Although they deny the existence of a personal Arch-Ant, they have faith in ant-ideals and thus propose to worship the general idea of anthood.

There are many more issues in the religious life of ant-religion, but it is too difficult for us to understand them and Professor Weller who was thoroughly familiar with them has passed away.

Human beings have their peculiar notions about the world, its origin, and the future fate of beings after death. It seems advisable for us to let some ant-philosopher explain his notions on these different subjects and compare notes with our conceptions. It is difficult to say how we shall get at the facts to make a comparison possible; but we ought to do it. The mere consideration that there are other beings in existence and that they also are God's creatures yearning to be "delivered from the bondage of corruption into the glorious liberty of a divine childhood," will help us to purify our own religious views. "We know that the whole creation groaneth and travaileth in pain together until now. And not only they, but ourselves, also, who [so at least we trust] have the first fruits of the Spirit, even we ourselves groan within ourselves, waiting for the adoption."

We must conclude from Professor Weller's remarks that the ants are very exclusive and dogmatic. They would scorn to confer with bees whom they regard as very inferior beings, and will, most likely, refuse to send delegates to a religious parliament in which they are likely to meet on an equal footing either with men or ant-bears or other lower creatures, none of which pay reverence to the Arch-Ant in the Eternal Hill of Bliss.

Some ant-philosophers regard mankind as quite rational and concede to them a high rank, not in morality, yet in intelligence and cunning. It is true that the fanciful notions on the intelligence of men have been given up again among the ants, since a great ant-naturalist has proved that what appears to be intelligence is mere instinct developed by the survival of the fittest. Instinct, he claims, is sufficient to account for the facts, thus it is quite redundant according to the principle of economy in explanations to assume the existence of any conscious or purposive intelligence.

We cannot here investigate how far the good opinion of ants concerning men is justified, but we hope that there is some fact back of it.

We regret that, owing to the exclusiveness of ants, there is little hope of meeting in conference with them. All the more ought we to consider the statements made by Professor Weller. We repeat, that without a proper appreciation of the religious problems from a radically different standpoint, such as that of the ants, comparative religion cannot attain completion. P. C.

IMAGO.

BY CHARLES ALVA LANE.

O fools and blind, to whom the life is meat!
Across whose multitude of business fall
No dreams; whose deaf ears will not hear the call
That starry silence and blue days repeat
In Gabriel tones, proclaiming Life is sweet
Unswathed of its aurelia, wherewithal
The sense doth seal the soul, till Thought is thrall
To appetence, and gyved of wing and feet!

Unseal thine eyes, O Soul! for all the hills
With flaming chariots burn of thronging Truth,
And Beauty of her speech the world fulfils,
Whose words the flowers are and dreams of youth,
Delight and song and longings rich and rare
As gathered fruits of Love's first visions are.

KOSSUTH AND GENERAL GORGEI.

MR. THEODORE STANTON writes us as follows from Paris:

"I notice in *The Open Court* some little discussion concerning Kossuth and Gorgei, which makes *à propos* a poem by Theodore Tilton, given in his new volume, 'The Chameleon's Dish,' published at the Oxford University Press, a very pretty piece of typography, by the way. Here is this spirited bit of verse:

'KOSSUTH ON GORGEI'S CAPITULATION,

A. D. 1849.

I could have better borne the blow
And throbbed with less of fever
Had he, the Traitor, been my foe
And not my Captain,—whom I know
As my deceiver.

Is ancient fealty at an end?
Is shining honor rusted?
Alas, the blow to which I bend
Was from "mine own familiar friend
In whom I trusted."

To such a blow what balm can be?
O God, it healeth never!
For even if the land be free,
My heart, a wounded aloe-tree,
Must bleed for ever!'

"The note, which the author appends to this poem, is in accord with your own, in your issue of April 12. Here it is:

"'Gorgei, the Hungarian General of 1848, and the friend and comrade of Kossuth, unexpectedly surrendered the Hungarian army; but it is fair to add, in Gorgei's behalf, that his surrender has been vindicated on the ground of military necessity, and as a humane measure to prevent the needless slaughter of his troops.'"

BOOK NOTICES.

Is the Bible a Revelation from God? Dialogues Between a Sceptic and a Christian, by Charles T. Gorham (London: Watts & Co.)—103 pages—impugns the notion of revelation; the arguments of the author are chiefly rationalistic.—*The Pymander of Hermes*, With a preface by the editor, (Collectanea Hermetica)—pp. 117—edited by W. Wynn Westcott, M. B. Lond., D. P. H., Supreme Magus of the Rosicrucian Society, Master of the Quatuor Coronati Lodge (Theosophical Publishing Society, London, 1894), is a reprint of the English translation by Dr. Everard, 1650, of one of the seventeen tracts attributed to Hermes Trismegistus; the book is neatly got up.—*A Square Talk to Young Men About the Inspiration of the Bible*, by H. L. Hastings (Scriptural Tract Repository, 1893, pp. 94, price, 75 cents), was originally a lecture delivered at Massachusetts before the Young Men's Christian Association; and after revision and enlargement was issued as the first number of the Anti-Infidel Library; it claims to be in its third million, twelve tons of it having been printed in London at one time; the book is within the comprehension of *any* reader. We have also received tracts by the same Library and with the same tendency, entitled "The Higher Criticism."—*Right Living*, by Susan H. Wixon (Chicago, Charles H. Kerr & Co., 1894, pp. 292), is a collection of pleasant talks upon the chief practical problems of life; we cannot enter into a discussion of the foundations of the author's views.—*Human Nature Considered in the Light of Physical Science, Including Phrenology, with a New Discovery*, by Mr. Caleb S. Weeks of New York (Fowler & Wells Co., 1893; pp. 240; 117 illustrations; cloth, $1.00; paper, 50 cents) is written in a sober, self-contained style, which, considering the subject, does the author much credit; it is free from most of the vagaries which usually characterise such works.

It is interesting to note that Mr. Louis Prang, the well-known art-publisher of Boston, who from the character of his business might be expected to hold just the opposite views upon this subject, has delivered an address at the dinner of the New England Tariff Reform League, March 9, 1894, in favor of free trade. Mr. Prang declares he is perfectly ready to compete with the European market, even in the formidable domain of lithography. Other speeches were delivered by Hon. Peleg McFarlin, Treasurer Ellis Foundry Co., Mr. Henry C. Thacher, wool merchant, and Mr. W. O. Blaney, flour and grain merchant. (Boston: New England Tariff Reform League, 1894.)

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THE OPEN COURT.

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GEN. MATTHEW MARK TRUMBULL

IN MEMORIAM.

THE FAREWELL AT THE HOUSE.

We are assembled here to pay our last tribute to thee, my dear friend; but we take leave from thy body only, not from thy soul. We bid farewell to the sympathetic features of thy face, but not to thy love, thy spiritual being, to thine own self and innermost nature. Thou thyself, thy transfigured self, wilt remain with us to live in our hearts in an inseparable communion with our souls as a living presence to enhance, elevate, and sanctify our lives.

ADDRESSES AT UNITY CHURCH.

THE SERMON.

What is more momentous, more soul-stirring, more mysterious than Death?

Death is constantly hovering over us: like the sword of Damocles, suspended by a hair, at any moment it threatens to come down upon us and destroy us.

None so great, none so powerful, none so strong and healthy but are doomed at last to die and pass away from the joyous light of the sun and the loving circle of family and friends.

What is Death? Is it the doom that seals the vanity of life? Is it nature's verdict that we are not entitled to an eternal individual existence? Is it the bringer of peace which after a life full of struggles bids us rest from our labors?

Verily, Death is all this and more! Death is the great teacher of man, and the lesson which he teaches cannot be learned to the end: it is always new whenever we are again confronted with the loss of one of our beloved ones.

Like the hierophânt in the ancient mysteries of Eleusis, Death reveals to us the secrets of a higher life, teaching the thoughtless to reflect and the frivolous to become sober. Leaving no hope to him who lives for himself alone, Death advises the selfish to surrender their selfishness. The imminence of death reminds us to seek for that which will abide. Death opens our eyes to spiritual truths pointing out to us the way of salvation. Thus Death rouses us to noble aims and imparts to us the bliss of a superindividual life which is attainable only through love and by ideal aspirations.

Death has stepped into our midst and has led away a hero from the ranks of brave fighters, a leader in battle, not only in the battles of war for the union of our country and the emancipation of the slave, but even more so in the spiritual battles for liberty, justice, and progress.

Gen. Matthew Mark Trumbull was born in London, England, 1826, and came to America in his youth where he began his career as a day-laborer working with pickaxe, shovel, and wheelbarrow. He then taught school and studied law. He served as a soldier in the Mexican and in the civil war, and rising in rank was finally made brigadier-general for bravery on the battle-field. Under General Grant he held the office of Collector of Internal Revenue in Iowa and devoted the rest of his life to literary work. He died in the sixty-ninth year of his active life after a wearisome and in the end most painful illness, which he bore with remarkable endurance and patience. His death is a sacrifice upon the altar of patriotism, for the cause of his troubles was a severe wound received in the battle of Shiloh.

General Trumbull was strong in his convictions, but he was not a fanatic partisan. His allegiance was always to the broad cause of humanity. He was an enthusiastic Republican, because the Republican party freed the slave. Nevertheless he was a free-trader because he regarded the protective tariff as a restriction and a self-imposed shackel that prevented our people from displaying their full energy in the competition with other nations. He was a friend of the laborer because the laborer is a toiler, and he knew from experience what toil means. He was always willing to extend his helpful services whenever needed, even at a sacrifice of his strength and health; and every one in trouble was his friend.

General Trumbull has often been misunderstood and misrepresented, but nothing could alter the disposition of his heart or make him swerve from his course to defend what he regarded as the cause of justice. Because he worked for the improvement of the conditions of the laboring classes, he was branded as a demagogue and a sower of discontent. How little this is true those know who have read his writings. The spirit of his books is well characterised by the following remark in his "Wheelbarrow":

"Coming out of the labor struggles of my childhood, youth, and early manhood, covered all over with bruises and scars. and with some wounds that will never be healed either in this world or in the world to come, I may have written some words in bitterness, but I do not wish to antagonise classes, nor to excite animosity and revenge. I desire to harmonise all the orders of society on the broad platform of mutual charity and justice. I have had no other object in writing these essays."

Because General Trumbull objected to creeds and dogmas, he has been called an infidel and an atheist. Certainly he was ready to take the odium of these names upon him, and it is true that he did not believe in a God who would be pleased with the flattery of his worshippers or alter the order of nature as a special favor to supplicants; but he did believe in the God of righteousness, charity, and love. General Trumbull rejected the creeds of sectarianism because to his mind they contained no religious truth, but he was confident that mankind would gradually adopt a broad cosmic religion which could stand the criticism of the infidel. His religious denomination was a faith in the religion of the future. He saw in the Parliament of Religions "the dawn of a new religious era, containing less myth and more truth, less creed and more deed, less dogma and more proof," and sums up his opinion concerning it in these words:

"The Parliament provided a sort of intellectual crucible in which all the creeds will be tested and purified as by fire. That sectarians of a hundred theologies have brought them to the furnace is a sign of social progress, and a promise of larger toleration. He who fears the fire has no faith, for whatsoever is true in his religion will come out of the furnace as pure metal, leaving the dross to be thrown away."

It can truly be said of General Trumbull that he remained a youth as long as he lived, youthful in his enthusiasm for the ideals of humanity, youthful in his combative disposition, and youthful in the spirit with which he wielded his pen, always sprightly, always buoyant, always brisk and quick in his thrusts and repartees. He did not shrink from sarcastic expressions, and his strictures were the more telling as he made them with good grace and often jokingly, for he always saw at once the comical side of his adversary's weakness. But back of the sarcasm of his caustic pen there was always the good heart of a sympathetic nature and an unshaken confidence in the final victory of truth and justice.

The loss of our departed friend is irreparable to his family, to his now widowed wife who was the faithful companion and indispensable helpmate of his life; to his daughters, his sons, and his grandchildren. His loss is irreparable to his friends who loved him for the kindness of his heart and the brilliancy of his genius. His loss is irreparable also to me. I shall miss him and not find his like again. He was my most valuable and intimate coworker, always ready to aid me with his pen, or his advice whenever I needed it. The readers of *The Open Court* will no longer have the benefit of enjoying the flashes of his inexhaustible wit with which he good-humoredly pilloried the follies of our time.

The worth of the man shows the greatness of our loss, and we stand here as mourners complaining of the curtailment of his usefulness to mankind and bewailing our bereavement.

The personality of the dead, of our beloved husband, father, and friend seems to have vanished as an air-bubble that breaks up, because we observe the decay of the body and bury the remains; we write upon the tombstone his name as if he himself rested there and visit the grave as if we visited him. Let us open our eyes to spiritual facts and remember the significant words spoken at the grave of him whose name has become the religious symbol of resurrection: "Why seek ye the living among the dead?" Let us not forget in our grief that Death is not a dissolution into nothingness; the discontinuance of life is all that we have a right to murmur against, for the soul abideth and cannot be annihilated.

Man's real being is his soul and not the dust of which his body consists. We bury the body and not the soul; and the soul of our beloved, departed friend is wherever his thoughts and sentiments have taken root. The soul remains with the living in life; it is preserved in its entire individuality with all its beauties and preferences.

As a stone that is built into a building loses nothing of its own being, so the souls of our ancestors are preserved in the living temple of humanity forming the foundation of a nobler future. When our life is ended, we find a home in that great empire of soul-life in which have been gathered all our fathers and the fathers of our fathers since the beginning of life upon earth.

[*Here a psalm was sung by the Lotus Quartette, under the direction of Mr. McGaffey.*]

THE LION AND THE LAMB BLENDED.

BY GEORGE A. SCHILLING.

What can I, feeble man, say that is a fitting tribute to the worth and character of our departed comrade whose life was an intense struggle from the cradle to

the grave. From early life to manhood, against poverty with all the disadvantages it entails; from early manhood until he closed his eyes in death, against social wrong and for the higher recognition of the equality of rights for all men. Born amidst the lowly people of England, "where," he says, "pictures of human life are seen in strongest light and shade, where opposite extremes menace each other forever, and where Dives and Lazarus exhibit the most glaring antithesis in this world"; he was driven by necessity to seek work at a tender age, so that he could aid in the support of the family. Whatever may have been the pangs of physical hunger from which he suffered in his youth, that which pained him most was the hunger of the mind; the desire for education and knowledge. When, therefore, the Chartist movement of England, with its gospel of social and industrial equality developed, with its promise for a higher intellectual life to all those who live by toil, it was not strange that our friend should become entangled in its magic circle and be one of its most enthusiastic votaries. Coming to this country with such ideas as the Chartist movement inculcated, we need not be surprised to learn that his conscience was tortured beyond expression, when he came face to face with the institution of chattel slavery. In my whole life I never knew a man in whose character the lion and the lamb were so thoroughly blended. He was as meek and gentle as a child. He loved peace and the arts of peace. His tongue and pen was ever busy advocating the principle of commercial freedom, which, aside from its industrial advantages and equities, he believed would tend to cultivate a fraternal feeling among all the nations of the earth, and thereby lessen and ultimately destroy the warlike spirit of mankind. He disliked wars with their brutalising effects, their devastations, their blood and carnage, yet, when entrenched wrong, intoxicated and arrogant, refused to recede, and grew even aggressive, he was ever ready to buckle on the armor and with his life in his hands fight for what he believed to be right. When therefore in 1860 our Southern slave-holders sought to perpetuate their peculiar institution by dismembering the Union, he was one of the first to come forward and sign the roll in defense of his country. Some may have joined the army in those days simply to preserve the union of States—not so General Trumbull. He joined the army and participated in that great conflict for the purpose of freeing the negro. No matter how loud the cannons boomed, or how fast and thick the shot and shell flew on the field of battle; it was all sweet music to him, because he felt that the end of the war would simultaneously be the end of slavery. Sitting by his fireside in latter years, conversing with friends, repeating his reminiscences of the war, he frequently expressed the joy he felt in his old days because of the fact that no negro ever came to his camp and left it a slave.

One cold morning, while stationed at St. Louis in the early part of the war, he boarded a street-car in which there was seated a colored woman, poorly clad. As the car glided along it soon filled up with passengers, the space becoming limited; the conductor "hustled" the colored woman out of the car on to the front platform. General Trumbull discerning the meaning of this was overcome with indignation. Going out after the woman, he brought her back into the car and commanded her to take her seat. To this the conductor remonstrated, saying that it was against the rules of the company for any colored person to ride on the inside of the car. General Trumbull exclaimed: "I don't care about your rules; if you attempt to eject this woman again, you will have to fight." To this the conductor replied: "Well, what am I to do? If I do not enforce the rules I will be discharged." "Well," said General Trumbull, "who is the president of your road?" To this the conductor replied: "It is B. Gratz Brown." Then said he: "Tell B. Gratz Brown that you were interfered with in the discharge of your duty in enforcing this rule by Captain Trumbull of the United States Army." This act on the part of our dead hero ended this discrimination which prevented colored people from riding on the inside of cars.

One day, from headquarters, he spied an excitement in his camp. Hurrying to the scene, he learned that a slave-holder wished to reclaim his slave—a negro girl, dressed in men's clothes, engaged in the camp cooking for a mess of the Union soldiers. The General, discovering the cause of the trouble, ordered the slave-holder to leave the camp, refusing to surrender the colored girl. The next day the slave-holder returned with an order from General Sherman asking General Trumbull to surrender the slave. After reading the order he tore it into strips, exclaiming: "I don't care about the orders of General Sherman; get out of this camp—*git, git, git.*" And he got.

He loved to tell of a character connected with his regiment who considered it his special duty to free all the negroes along the line of march. He would take the negroes by the ear, spin them around the circle three times, and repeat the following ceremony:

"By the authority of the Constitution and the power in me vested by the President of the United States, I declare that you are as free as the water that runs, the birds that sing, and the wind that blows."

Whether pleading for the liberty of the slave on the stump, or striking at the shackles that bound his limbs on the field of battle, or whether in the quiet recesses of his home with pen in hand, sending forth the message of his conscience to mankind; in any and

all of these stations he was always the soldier of liberty, hurling thunderbolts of defiance at the tyrants of the earth. No man feared death less than he, yet no man desired life more. The great social and industrial questions of our day, which cause many to look into the future with doubt, and which tax the minds of the wisest of our men and women, excited his highest interest. He saw new issues developing, and he wished to remain with us, so that in their proper settlement his pen and tongue might be a helpful aid to the world.

If he did not leave his family full in pocket, he left them the wealth and legacy of a rich and honorable life. Would that all wives and all children could feel that ineffable blessing, while standing at the bier of their departed husband or father, that his wife and children can feel to-day. I am sure we can all join with the poet and say:

> "An honest man has gone to rest,
> To rise or sleep on nature's breast,
> The friend of man, the friend of truth,
> The staff of age and guide of youth;
> Your head with knowledge well informed,
> Your heart with tenderness was warmed;
> If there's another world, you live in bliss,
> If there is none, you made the best of this."

And now, is this final farewell on earth an eternal good night? Shall we never meet again? I think we shall. I cherish the hope that when my own soul crosses the river Styx the General will be on the opposite bank extending a welcome hand with a "Good morning" on his lips.

MORAL COURAGE RARER THAN PHYSICAL BRAVERY.

BY CLARENCE S. DARROW.

It is a solemn privilege to speak a few last words above this friend I knew and loved so well. He was a gentle, brave, and noble man, and had a heart so large and mind so broad that no family, state, or nation could claim him for its own, but he belonged to all the world.

One man in the great mass of human life is like a drop of water in the sea, but when this light went out we lost a true and faithful friend to whom we never needed to explain, but who viewed our every act as if born of the high motives which always moved his soul.

He was a soldier in our civil war, and bravely faced the shot and shell to liberate the poor and weak, but the battle-fields of our great rebellion were not the only ones on which our brave friend fought. He was not "mustered in," in sixty-one, or "mustered out," in sixty-five, but when his great, young heart first learned to beat for all the poor and weak, he became a soldier in humanity's great cause, and with undaunted courage and a heart that never quailed he served that cause until the last message came which bade our weary soldier leave his post for an eternal rest.

How often have I heard him say that moral courage is far rarer and finer than physical bravery, and were he to speak to us to-day, he would say with me that his greatest victories were not won with sabre and with gun, but in those dark moments which here and there are scattered through our lives where a few brave and loyal souls are gathered close together, to feel the beating of each other's hearts, gain courage from each other's lives, and bravely stand within the citadel of truth to resist the angry, surging sea of wrong which comes to overwhelm and to destroy. Whatever the occasion, however few the comrades, however desperate the struggle, however threatening the tide and resistless the onslaught this dead hero was ever firm and ready, ever brave and powerful to defend the right. Let no one think that because we hear no cannons roar and see no sabres flash that these are days of peace, for the old, old strife between the right and wrong, the oppressor and oppressed, is raging fierce and desperate now, and we who loved the dead and what he loved, feel that we leave upon the field of battle a comrade brave and true, whom we will surely miss and sadly need in the great conflicts that are sure to come; but when the battle rages fierce and strong we will not fail to hear his old heroic words ringing bravely to inspire our souls.

The dead believed in no narrow dogmas or creeds; he was often called an infidel and an atheist, and while he took no exception to these terms, those who knew him best were well aware that they did not define his religious views. I think I know what he believed and can say that he was not an atheist. He looked on nature in all her countless forms of life; he could not understand the power that makes a blade of grass to grow, that holds the planets in their place, and that forms a human brain; he did not know and would not guess. He listened to the creeds and dogmas of the world which assume to speak for the great heart of the universe itself, and he believed that it was little less than blasphemy for a finite mind to seek to limit, define, and understand the great source of life that pervades the smallest portion of the mighty whole.

It seems to me that could he know my thoughts he would wish that I should say of him as I would hope that he would speak of me, were I beneath his coffin-lid and he standing by my side. That as to the great questions of a deity and immortal life he meekly and reverently bowed his head in the presence of this infinite mystery and admitted that the wisdom of the sages was no more than the foolishness of babes; to these old questions he could answer neither yes nor no, but confessing his ignorance of the great problem of the ages he refused to guess where he could not know.

But religion is not made of creeds and dogmas, but

of thoughts and deeds, and his great mind and heart knew and understood full well that the highest worship is to lay the richest treasures of the soul upon the altar built in humanity's great cause; and all the strength of his frame and the treasures of his mind from his earliest youth until his last hour on earth, were lavishly given to this noble cause.

His was a soul so great and true that no ignoble motives ever influenced his conduct or shaped his acts; he needed no hell to threaten, no heaven to coax, but seeing where his duty lay he never dreamed that there was any other path his feet could tread.

And now good-bye, my dear, dead friend, good-bye, we leave you at the open grave where all the living part from all the dead. 'Tis hard to say farewell, to feel that those lips which never spoke to defend the wrong or strong, must be silent ever more, to know that your brave hand, that was ever quick to write and fight for the oppressed and poor, is now withering into dust; to know that for us you can live only in the memories that your grand life has made a portion of our own.

We give you back to the elements which lent the life and clay which you used so wisely and so well; it may be that in nature's wondrous laboratory this dust may go to make another human form, but no miracle or chance will ever mould this clay again into another man like this we sadly cover over with earth and flowers.

THE SAXON.

BY GEORGE E. GOOCH.

We are assembled to-day to do homage, to pay a last tribute of respect to all that is mortal of our late President-elect of the Saint George's Benevolent Association of Chicago, Gen. Matthew M. Trumbull. He belonged to a race that has girdled the earth with its sons, and in whatever longitude that race governs, whether they be native born or the descendants of Britons there is true liberty. The sons of the old land, the land so dearly loved by our departed General and President, meet here to-day with the soldiers and sons of England's greatest daughter, Columbia, to say a last and sad farewell to him whose daily life and gentle nature were an example to us all. Brave as the lion, the emblem of Britain, his native land, he fought like a true soldier for the land of his adoption. He fought to burst asunder the shackles of the slave, and that this great country, the land of his and our adoption, might be and remain a nation.

There are times and occurrences, doubts and fears, in the life of every man that we cannot fathom; our lights are dim, and we seek for a greater knowledge, a greater light; but who is there of his fellow countrymen present on this solemn occasion who knew intimately our departed friend and does not believe that he practised during his daily walks through life the great teachings and precepts of the lowly Nazarene, "Blessed are the merciful, for they shall obtain mercy." Are there not men with us to-day who can tell us that this departed philanthropist believed in the doctrine, and shall not the family of our late friend have the consolation of another promise, "Blessed are they which are persecuted for righteousness' sake, for theirs is the Kingdom of Heaven"? Yes, thrice yes! A great man has gone from our midst, but his works shall be remembered by us forever:

"The sun is but a spark of fire,
A transient meteor in the sky;
The soul immortal as its sire,
Shall never die."

And now, in the presence of this great congregation and his sorrowing family, I proclaim with reverence and with love on behalf of my fellow-countrymen, whose representative I am this day, the final words of tribute to our departed associate. He was a devoted husband and father, a true and steadfast friend, a brave and loyal soldier, a child of God. Farewell! and may we who are left on this earthly pilgrimage emulate thy virtues and thy example, and may thy love of right, thy love of justice to every man, remain with us to guide our daily lives and actions as God in his wisdom may give us the light.

WHEELBARROW.

In the name of Gen. M. M. Trumbull's admirers we place upon his coffin a copy of "Wheelbarrow," the matured fruit of his literary work; and this is the envoy written on the fly leaf:

"The body of our dear, beloved friend has become a prey of death; the dust is given back to the dust. But his never-dying soul is not buried with the body. Let us not seek the living among the dead. His soul still lives with us as an immortal presence, and even those who have never seen his face, will find him in his works. The most valuable bequest of Gen. M. M. Trumbull to mankind is his book 'Wheelbarrow.' Every page of it is aglow with his youthful zeal for liberty, justice, and progress."

INTEGER VITAE.

(Horace, 1, 22.) Adapted Version Sung by the Lotus Quartette.

He who is upright, kind, and free from error
Needs not the aid of arms or men to guard him;
Safely he moves, a child to guilty terror,
Strong in his virtues.

What though he journey o'er the burning desert,
What though alone on raging billows tossing,
All aid, all succor of his kind shall fail him,
God will attend him.

So when cometh the evening of his days,
Fearless and glad shall he pass the dark portal,
Sure as he treadeth the valley of the shadow—
God will attend him.

RITUAL OF G. A. R.

COMMANDER, taking his position at the head of the coffin: "Assembled to pay our last tribute of respect to this dead soldier of our Republic, let us unite in prayer. The Chaplain will invoke the Divine blessing."

CHAPLAIN, standing at the foot of the coffin: "God of battles! Father of all! amid these monuments of the dead we seek Thee, with Whom there is no death. Open every eye to behold Him who changed the night of death into morning. In the depths of our hearts we would hear the celestial word, 'I am the Resurrection and the Life; he that believeth in Me, though he were dead, yet shall he live.' As comrade after comrade departs, and we march on with ranks broken, help us to be faithful unto Thee and to each other. We beseech Thee, look in mercy on the widows and children of deceased comrades, and with Thine own tenderness console and comfort those bereaved by this event which calls us here. Give them 'the oil of joy for mourning, the garment of praise for the spirit of heaviness.' Heavenly Father! bless and save our country with the freedom and peace of righteousness, and, through Thy great mercy, a Saviour's grace and Thy Holy Spirit's favor, may we all meet at last in joy before Thy throne in heaven. And to Thy great name shall be praise for ever and ever."

ALL COMRADES, standing in the rear of the chaplain: "Amen!"

COMMANDER: "One by one, as the years roll on, we are called together to fulfil these last sad duties of respect to our comrades of the war. The present, full of the cares and pleasures of civil life, fades away, and we look back to the time when, shoulder to shoulder on bloody battle-fields, or around the guns of our men-of-war, we fought for our dear old flag. We may indulge the hope that the spirit with which, on land and sea, hardship, privation, dangers were encountered by our dead heroes—a spirit uncomplaining, nobly, manfully obedient to the behest of duty, whereby to-day our homes are secure, and our loved ones rest in peace under the ægis of the flag, will prove a glorious incentive to the youth who, in the ages to come, may be called to uphold the destinies of our country. As the years roll on, we, too, shall have fought our battles through, and be laid to rest, our souls following the long column to the realms above, as grim death, hour by hour, shall mark its victim. Let us so live that when that time shall come those we leave behind may say above our graves, 'Here lies the body of a true-hearted, brave, and earnest defender of the Republic.'"

FIRST COMRADE (*laying a wreath of evergreen upon the coffin*): "In behalf of the Post, I give this tribute, a symbol of an undying love for comrades of the war."

SECOND COMRADE (*laying a white rose upon the coffin*): "Symbol of purity, we offer at this lowly grave a rose. May future generations emulate the unselfish devotion of even the lowliest of our heroes."

THIRD COMRADE (*laying a laurel leaf upon the coffin*): "Last token of affection from comrades in arms, we crown these remains with a symbol of victory."

MRS. NETTIE E GUNLOCK (*placing a flag upon the breast of the deceased*): "In grateful remembrance of the time when he offered his life, if need be, that this flag should wave forever, we, the mothers and wives of his comrades, now lovingly and reverently place it on his breast."

A TRIBUTE TO THE OLD SOLDIER.

BY COL. JAMES A. SEXTON.

M. M. TRUMBULL is dead. Our genial, light-hearted, buoyant, and companionable friend is gone. He was honest, capable, and faithful, possessing an attractive personality, making innumerable steadfast friends. The taste he acquired in the army for military drill and discipline remained with and grew upon him until the end of his life; for he was always deeply interested in military affairs.

Another name has been added to our roll of honor; and Post 28 not only numbers one less in membership, but also sustains the loss of one of its most earnest and devoted comrades.

Gen. Matthew M. Trumbull, was one of those men whose work and influence will scarcely be appreciated until after his death. He was a strong, original thinker, a constant advocate of what he believed to be right and an enemy of wrong, in any shape or form, either social or political. An abolitionist in the days when abolition principles were not only unpopular, but positively dangerous to the men who advocated them, he lived to see the evil and folly of slavery admitted by every one. He was equally sincere in his opposition to wrong and the inequalities of our economic system, and his voice and pen were never idle in his endeavors to remedy these evils.

He was a patriot without being a politician, a reformer for reform's sake only. He served the country of his adoption in two wars enlisting originally as a private soldier, and by intelligence, faithfulness, courage, and earnest endeavor wherever duty called, he rose step by step, until he won the star of a brigadier general, which he proudly wore, discharging all the responsibilities thereof to the satisfaction of himself and his superiors. His death is a distinct loss to the country.

Comrades, he was our friend, loyal and true, and we loved him dearly, and all his old soldier associates honored and respected him.

We shall cherish the memories of our comrades dead, we will be loyal to our comrades living. We cannot forget our dead, they will live in our hearts forever; we will not desert our living. We shall, indeed, never again feel the warm hand-grasp of our noble friend, nor be glad in his sunny smile, nor drink in the deep delights of his discourse; but sweet memories of his generous nature, of his chivalrous bearing, of his devotion to principle, of his boundless love for his country, of his fidelity to his home, will survive. He was his own biographer, his own sculptor, for he made his life a part of the undying history of his country and engraved his image on the hearts of his countrymen.

From an intimate acquaintance and association with him I learned to know of his kindly disposition and his earnest sympathy for his fellow-men, and a sincere desire to inculcate loving kindness in all. His creed was in sentiment about as follows; and he delighted in saying: "*Do not* keep the alabaster boxes of your love and tenderness sealed up until your friends are dead, but fill their lives with sweetness. *Now*—

speak approving and cheering words while their ears can hear them, and while their hearts can be thrilled and made happier by them. The kind things you will say after they are gone, *say before they go*. The flower you mean to send for their coffins *bestow now*, and so brighten and sweeten their earthly homes before they leave them. If my friends have alabaster boxes laid away, full of fragrant perfumes of sympathy and affection, which they intend to break over my dead body, I would rather they would bring them out in my wearied and troubled hours, and open them, that I may be refreshed and cheered by them while I need them. I would rather have a plain coffin without a flower, and a funeral without an eulogy, than a life without the sweetness of love and sympathy. Comrades, let us learn to anoint our friends beforehand for their burial; post-mortem kindness does not cheer the hardened spirit. Flowers upon the coffin shed no fragrance backward over the weary way by which loved ones have travelled."

And now, at the grave of this, our comrade and friend, let us highly resolve, through evil and good report, to touch elbows with the deserving veterans, though old, worn, broken, and in rags, and with them again drink from the same canteen.

When the spirit of this grand, good man and once intrepid warrior wings its flight to the land beyond the river, ready and willing to give an account of his stewardship, I can imagine that I can see St. Peter standing at the Golden Gate, watching and waiting for the mighty concourse of his elect, and when he beholds the image of our dear friend, he will repeat the orders as were given in Hardee's old tactics:

"Turn out the Guard!
Parade the Colors!
Beat the Drums!
Another Comrade Comes!"

FAREWELL, COMRADE.

RECITED BY CHARLES E. ST. CLAIR.

Silent comrade, gently sleeping,
We meet here to honor you,
As our retrospection takes us
Where the scenes of strife we view;
Then you faced the cannon's belching,
Elbows touched with comrades there
While the earth was sadly quaking,
Still our flag waved proud and fair.

In the hour of greatest danger,
When your ranks were thinning fast,
How your comrades closed around you
For the final charge at last.
We will ne'er forget your valor
Shown upon the battle-field,
Though opposed by fiercest traitors,
Never, comrade, would you yield.

On and on, through years of battle,
Weary march in scorching sun,
Sleet, and snow, 'mid musket's rattle,
Still you pressed, and victory won.
Thus you tarried, under orders,
Many long and dreadful years,
Victory perched upon your banner,
Thankful hearts give honored cheers

By our comrade's zeal our nation
Is cemented to the core;
Country, flag, and Constitution
Stands revered as ne'er before:
Rest, then, comrade, in your glory,
As a grateful nation's praise
Ever weaves, in song and story,
Victors' chaplets for her braves.

Glad hearts bow in admiration,
Loyal souls exult with pride,
You with others saved this nation
From a vortex dark and wide.
Rest, proud hero, ever living
In the hearts of patriots true,
And your mem'ry ever bringing
Glad thoughts of the boys in blue.

Farewell, comrade, gently sleeping
'Till the angel trumpet strain
Wakes again the loyal millions
Evermore to live again.

TENTING ON THE OLD CAMP-GROUND.

Sung by the Lotus Quartette.

"We're tenting to-night on the old camp-ground;
Give us a song to cheer
Our weary hearts, a song of home,
And friends we love so dear.
CHORUS: Many are the hearts that are weary to-night,
Wishing for the war to cease;
Many are the hearts looking for the right,
To see the dawn of peace.

We've been tenting to-night on the old camp-ground,
Thinking of days gone by,
Of the lov'd ones at home that gave us the hand,
And the tear that said 'Good-by!'
CHORUS: Many are the hearts that are weary to-night,
Wishing for the war to cease;
Many are the hearts looking for the right,
To see the dawn of peace.

We've been fighting to-day on the old camp-ground,
Many are lying near;
Some are dead, and some are dying,
Many are in tears.
CHORUS: Dying to-night,
Dying to-night,
Dying on the old camp-ground."

[*The interment took place at Rosehill Cemetery.*]

FIR BRANCHES ON THE OPEN GRAVE.

"Howl, fir tree, for the cedar is fallen."—*Zech.*, ii, 2.

THE FIR is the prophet among the trees, for it remains green in winter and serves us during the time of the longest nights in the year as a light-bearer, a

bringer of joy, and as a symbol of life. Remembering the meaning of the fir, we understand the message of its prophecy and in this sense cover the open grave with its branches. We are surrounded by darkness but the night will give way to a brighter morn, we are visited with grief, but our affliction will only serve to chasten the cheer of our joy; we stand before the portal of Death, but out of the seeds which we bury in the ground a new spring will burst forth promising a rich harvest.

We have accompanied the slumbering body of the departed to its final resting-place, and now bid it a last farewell.

Peace be with these ashes! May their rest be sweet and undisturbed like a dreamless sleep. We part from them as from the bed of a beloved child whom we have lulled to sleep.

The body slumbers, but as there is no sunset to the sun, so there is no death to the soul. The day is gone when the evening sinks down, but the light continues to illumine the world.

While dust returns to dust, the soul finds its sphere of being among souls. There it is cherished and kept as a sacred memory; there it lives and breathes the air of immortality.

GENERAL TRUMBULL'S CONNEXION WITH "THE OPEN COURT."

General Trumbull's connexion with *The Open Court* dates from the first year of the existence of this magazine, when the well-known series of articles on the Labor Question, with the discussions to which they gave rise, began. Our early readers will all remember the powerful controversial abilities which General Trumbull there displayed, and the delightful humor and merriment which pervaded all his thrusts and parries. These articles, together with three splendid essays of the highest literary character on the Poets of Liberty and Labor, Gerald Massey, Robert Burns, and Thomas Hood, were afterwards published in book-form under the title of "Wheelbarrow." To this book he added his Autobiography, which in its frank, beautiful simplicity will justly bear comparison with the famous masterpiece of David Hume, which he so much admired.

His best known work, perhaps, is "The Free Trade Struggle in England," the second edition of which was also published by The Open Court Publishing Co. This book was dedicated to John Bright, who prefaces the work with an interesting and highly commendatory letter.

General Trumbull also contributed to several prominent magazines, among them to the *Nineteenth Century* and *The Monist*. But the journal with which his name is last and perhaps most intimately associated is *The Open Court*, in which his "Current Topics" began with No. 141 on May 8, 1890, under the modest designation of "Notes." Here he applied those powers of wit, humor, and sarcasm which were his richest patrimony, to the castigation of snobbery, vice, and hypocrisy in every form, drawing from an inexhaustible wealth of anecdote, which only such a life could have gathered, the illustrations which gave force, light, and beauty to all that he said. He furnished, too,—what must never be forgotten,—one of the first noteworthy examples of that rarest of national qualities which Matthew Arnold said our country so sadly lacked, fearless and searching self-criticism. His discernment for national conceits and Chauvinistic illusions was unexampled, and his lash, when once he caught a lurking vanity or folly, was merciless. His utterances were read and quoted from one end of this country to the other. Many in authority have acted more wisely because of his sayings, and many of us not in authority have learned to think more justly and unselfishly of our national and social conditions. In this respect, at a time when such work is so much needed, his death must be mourned as a public loss, reaching far beyond the gap which the silence of his pen will leave in the hearts of the readers of *The Open Court*.

Thomas J. McCormack.

THE OPEN COURT.

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THE FIBRES OF CORTI.

A POPULAR SCIENTIFIC LECTURE.[1]

BY PROF. ERNST MACH.

Whoever has roamed through a beautiful country knows that the tourist's delights increase with his progress. How pretty that wooded dell must look from yonder hill! Whither does that clear brook flow, that hides itself in yonder sedge? If I only knew how the landscape looked behind that mountain! Thus even the child thinks in his first rambles. It is also true of the natural philosopher.

The first questions are forced upon the attention of the inquirer by practical considerations; the subsequent ones are not. An irresistible attraction draws him to these; a nobler interest which far transcends the mere needs of life. Let us look at a special case.

For a long time the structure of the organ of hearing has actively engaged the attention of anatomists. A considerable number of brilliant discoveries has been brought to light by their labors, and a splendid array of facts and truths established. But with these facts a host of new enigmas has been presented.

Whilst in the theory of the organisation and functions of the eye comparative clearness has been attained; whilst, hand in hand with this, ophthalmology has reached a degree of perfection which the preceding century could hardly have dreamed of, and by the help of the ophthalmoscope the observing physician penetrates into the profoundest recesses of the eye, the theory of the ear is still much shrouded in mysterious darkness, full of attraction for the investigator.

Look at this model of the ear. Even at that familiar part by whose extent we measure the quantity of people's intelligence, even at the external ear, the problems begin. You see here a succession of helixes or spiral windings, at times very pretty, whose significance we cannot accurately state, yet for which there must certainly be some reason.

The shell or concha of the ear, *a* in the annexed diagram, conducts the sound into the curved auditory passage *b*, which is terminated by a thin membrane, the so-called tympanic membrane, *c*. This membrane is set in motion by the sound, and in its turn sets in motion a series of little bones of very peculiar formation, *c*. At the end of all is the labyrinth *d*. The labyrinth consists of a group of cavities filled with a liquid, in which the innumerable fibres of the nerve of hearing are imbedded. By the vibration of the chain of bones *c*, the liquid of the labyrinth is shaken, and the auditory nerve excited. Here the process of hearing begins. So much is certain. But the details of the process are one and all unanswered questions.

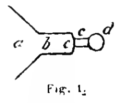

Fig. 1.

To these old puzzles, the Marchese Corti, as late as 1851, added a new enigma. And, strange to say, it is this last enigma, which, perhaps, has first received its correct solution. This will be the subject of our remarks to-day.

Corti found in the cochlea, or snail-shell of the labyrinth, a large number of microscopic fibres placed side by side in geometrically graduated order. According to Kölliker their number is three thousand. They were also the subject of investigation at the hands of Max Schultze and Deiters.

A description of the details of this organ would only weary you, besides not rendering the matter much clearer. I prefer, therefore, to state briefly what in the opinion of prominent investigators like Helmholtz and Fechner is the peculiar function of Corti's fibres. The cochlea, it seems, contains a large number of elastic fibres of graduated lengths (Fig. 2), to which the branches of the auditory nerve are attached. These fibres, called the fibres, pillars, or rods of Corti, being of unequal length, must also be of unequal elasticity, and, consequently, pitched to different notes. The cochlea, therefore, is a species of pianoforte.

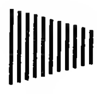
Fig. 2.

What, now, may be the office of this structure, which is found in no other organ of sense? May it not be connected with some special property of the ear? It is quite probable; for the ear possesses a very similar power. You know that it is possible to follow the individual voices of a symphony. Indeed, the feat is possible even in a fugue of Bach, where it is certainly no inconsiderable achievement. The ear can

[1] Graz, 1865. Translated by μκρκ.

pick out the single constituent tonal parts, not only of a harmony, but of the wildest clash of music imaginable. The musical ear analyses every agglomeration of tones.

The eye does not possess this ability. Who, for example, could tell from the mere sight of white, without a previous experimental knowledge of the fact, that white is composed of a mixture of other colors? Could it be, now, that these two facts, the property of the ear just mentioned, and the structure discovered by Corti, are really connected? It is very probable. The enigma is solved if we assume that every note of definite pitch has its special string in this pianoforte of Corti, and, therefore, its special branch of the auditory nerve attached to that string. But before I can make this point perfectly plain to you, I must ask you to follow me a few steps into the dry domain of physics.

Look at this pendulum. Forced from its position of equilibrium by an impulse, it begins to swing with a definite time of oscillation, dependent upon its length. Longer pendulums swing more slowly, shorter ones more quickly. We will suppose our pendulum to execute one to-and-fro movement in a second.

This pendulum, now, can be thrown into violent vibration in two ways; either by a *single* heavy impulse, or by a *number* of properly communicated slight impulses. For example, we impart to the pendulum, while at rest in its position of equilibrium, a very slight impulse. It will execute a very small vibration. As it passes a third time its position of equilibrium, a second having elapsed, we impart to it again a slight shock, in the same direction with the first. Again after the lapse of a second, on its fifth passage through the position of equilibrium, we strike it again in the same manner; and so continue. You see, by this process the shocks imparted augment continually the motion of the pendulum. After each slight impulse, the pendulum reaches out a little further in its swing, and finally acquires a considerable motion.[1]

But this is not the case under all circumstances. It is possible only when the impulses imparted synchronise with the swings of the pendulum. If we should communicate the second impulse at the end of half a second and in the same direction with the first impulse, its effects would counteract the motion of the pendulum. It is easily seen that our little impulses help the motion of the pendulum more and more, according as their time accords with the time of the pendulum. If we strike the pendulum in any other time than in that of its vibration, in some instances, it is true, we shall augment its vibration, but in others again, we shall impede it. Our impulses will be less effective the more the motion of our own hand departs from the motion of the pendulum.

[1] This experiment with its associated reflexions is due to Galileo.

What is true of the pendulum holds true of every vibrating body. A tuning fork when it sounds, also vibrates. It vibrates more rapidly when its sound is higher; more slowly when it is deeper. The standard *A* of our musical scale is produced by about four hundred and fifty vibrations in a second.

I place by the side of each other on this table two tuning-forks, exactly alike, resting on resonant cases. I strike the first one a sharp blow, so that it emits a loud note, and immediately grasp it again with my hand to quench its note. Nevertheless, you still hear the note distinctly sounded, and by feeling it you may convince yourselves that the other fork which was not struck now vibrates.

I now attach a small bit of wax to one of the forks. It is thrown thus out of tune; its note is made a little deeper. I now repeat the same experiment with the two forks, now of unequal pitch, by striking one of them and again grasping it with my hand; but in the present case the note ceases the very instant I touch the fork.

What has happened here in these two experiments? Simply this. The vibrating fork imparts to the air and to the table four hundred and fifty shocks a second, which are carried over to the other fork. If the other fork is pitched to the same note, that is to say, if it vibrates when struck in the same time with the first, then the shocks first emitted, no matter how slight they may be, are sufficient to throw the second fork into rapid sympathetic vibration. But when the time of vibration of the two forks is slightly different, this does not take place. We may strike as many forks as we will, the fork tuned to *A* is perfectly indifferent to their notes; is deaf, in fact, to all except its own; and if you strike three, or four, or five, or any number whatsoever, of forks all at the same time, so as to make the shocks which come from them ever so great, the *A* fork will not join in with their vibrations unless another fork *A* is found in the collection struck. It picks out, in other words, from all the notes sounded, that which accords with it.

The same is true of all bodies which can yield notes. Tumblers resound when a piano is played, on the striking of certain notes, and so do window panes. Nor is the phenomenon without analogy in other provinces. Take a dog that answers to the name "Nero." He lies under your table. You speak of Domitian, Vespasian, and Marcus Aurelius Antoninus, you call upon all the names of the Roman Emperors that occur to you, but the dog does not stir, although a slight tremor of his ear tells you of a slight response of his consciousness. But the moment you call "Nero" he jumps joyfully towards you. The tuning-fork is like your dog. It answers to the name *A*.

You smile, ladies. You shake your heads. The

simile does not catch your fancy. But I have another, which is very near to you: and for punishment you shall hear it. You, too, are like tuning-forks. Many are the hearts that throb with ardor for you, of which you take no notice, but are cold. Yet what does it profit you! Soon the heart will come that beats in just the proper rhythm, and then your knell, too, has struck. Then your heart, too, will beat in unison, whether you will or no.

The law of sympathetic vibration, here propounded for sounding bodies, suffers some modification for bodies incompetent to yield notes. Bodies of this kind vibrate to almost every note. A high silk hat, we know, will not sound; but if you will hold your hat in your hand when attending your next concert you will not only hear the pieces played, but also feel them with your fingers. It is exactly so with men. People who are themselves able to give tone to their surroundings, bother little about the prattle of others. But the person without character tarries everywhere: in the temperance hall, and at the bar of the public-house—everywhere where a committee is formed. The high silk hat is among bells what the weakling is among men of conviction.

A sonorous body, therefore, always sounds when its special note, either alone or in company with others, is struck. We may now go a step further. What will be the behaviour of a group of sonorous bodies which in the pitch of their notes form a scale? Let us picture to ourselves, for example (Fig. 3), a series of rods or strings pitched to the notes *c d e f g*. . . . . On a musical instrument the accord *c e g* is struck. Every one of the rods of Fig. 3 will see if its special note is contained in the accord, and if it finds it, it will respond. The rod *c* will give at once the note *c*, the rod *e* the note *e*, the rod *g* the note *g*. All the other rods will remain at rest, will not sound.

Fig. 3.

We need not look about us long for such an instrument. Every piano is an instrument of this kind, with which the experiment mentioned may be executed with splendid success. Two pianos stand here by the side of each other, both tuned alike. We will employ the first for exciting the notes, while we will allow the second to respond; after having first pressed upon the loud pedal, and thus rendered the strings capable of motion.

Every harmony struck with vigor on the first piano is distinctly repeated on the second. To prove that it is the same strings that are sounded in both pianos, we repeat the experiment in a slightly changed form. We let go the loud pedal of the second piano and pressing on the keys *c e g* of that instrument vigorously strike the harmony *c e g* on the first piano. The harmony *c e g* is now also sounded on the second piano. But if we press only on one key *g* of one piano, while we strike *c e g* on the other, only *g* will be sounded on the second. It is thus always the like strings of the two pianos that excite each other.

The piano can reproduce any sound that is composed of its musical notes. It will reproduce, for example, very distinctly, a vowel sound that is sung into it. And in truth physics has proved that the vowels may be regarded as composed of simple musical notes.

You see that by the exciting of definite tones in the air quite definite motions are set up with mechanical necessity in the piano. The idea might be made use of for the performance of some pretty pieces of wizardry. Imagine a box in which is a stretched string of definite pitch. This is thrown into motion as often as its note is sung or whistled. Now it would not be a very difficult task for a skilful mechanic to so construct the box that the vibrating cord would close a galvanic circuit and open the lock. And it would not be a much more difficult task to construct a box which would open at the whistling of a certain melody. Sesame! and the bolts fall. Truly, we should have here a veritable puzzle-lock. Still another fragment rescued from that old kingdom of fables, of which our day has realised so much, that world of fairy-stories to which the latest contributions are Casselli's telegraph, by which one can write at a distance in one's own hand, and Prof. Elisha Gray's telautograph. What would the good old Herodotus have said to these things who even in Egypt shook his head at much that he saw? ἐμοὶ μὲν οὐ πιστά, just as simple-heartedly as then, when he heard of the circumnavigation of Africa.

A new puzzle-lock! But why invent one? Are not we human beings ourselves puzzle-locks? Think of the wonderful groups of thoughts, feelings, and emotions that can be aroused in us by a word! Are there not moments in all our lives when a mere name drives the blood to our hearts? Who that has attended a large mass-meeting has not experienced what tremendous quantities of energy and motion can be evolved by the innocent words, "Liberty, Equality, Fraternity."

But let us return to the subject-proper of our discourse. Let us look again at our piano, or what will do just as well, at some other contrivance of the same character. What does this instrument do? Plainly, it decomposes, it analyses every agglomeration of sounds set up in the air into its individual component parts, each tone being taken up by a different string; it performs a real spectral analysis of sound. A person completely deaf, with the help of a piano, simply by touching the strings or examining their vibrations with a microscope, might investigate the sonorous motion of the air, and pick out the separate tones excited in it.

The ear has the same capacity as this piano. The ear performs for the mind what the piano performs for a person who is deaf. The mind without the ear is deaf. But a deaf person, with the piano, does hear after a fashion, though much less vividly, and more clumsily, than with the ear. The ear, thus, also decomposes sound into its component tonal parts. I shall now not be deceived, I think, if I assume that you already have a presentiment of what the function of Corti's fibres is. We can make the matter very plain to ourselves. We will use the one piano for exciting the sounds, and we shall imagine the second one in the ear of the observer in the place of Corti's fibres, which is a model of such an instrument. To every string of the piano in the ear we will suppose a special fibre of the auditory nerve attached, so that this fibre and this alone, is irritated when the string is thrown into vibration. If we strike now an accord on the external piano, for every tone of that accord a definite string of the internal piano will sound and as many different nervous fibres will be irritated as there are notes in the accord. The simultaneous sense-impressions due to different notes can thus be preserved unmingled and be separated by the attention. It is the same as with the five fingers of the hand. With each finger I can touch something different. Now the ear has three thousand such fingers, and each one is designed for the touching of a different tone.[1] Our ear is a puzzle-lock of the kind mentioned. It opens at the magic melody of a sound. But it is a stupendously ingenious lock. Not only one tone, but every tone makes it open; but each one differently. To each tone it replies with a different sensation.

* * *

More than once it has happened in the history of science that a phenomenon predicted by theory, has not been brought within the range of actual observation until long afterwards. Leverrier predicted the existence and the place of the planet Neptune, but it was not until sometime later that Gall actually found the planet at the predicted spot. Hamilton unfolded theoretically the phenomenon of the so-called conical refraction of light, but it was reserved for Lloyd some time subsequently to observe the fact. The fortunes of Helmholtz's theory of Corti's fibres have been somewhat similar. This theory, too, received its substantial confirmation from the subsequent observations of V. Hensen. On the free surface of the bodies of Crustacea, connected with the auditory nerves, rows of little hairy filaments of varying lengths and thicknesses are found, which to some extent are the analogues of Corti's fibres. Hensen saw these hairs vibrate when sounds were excited, and when different notes were struck different hairs were set in vibration.

I have compared the work of the physical inquirer to the journey of the tourist. When the tourist ascends a new hill he obtains of the whole district a different view. When the inquirer has found the solution of one enigma, the solution of a host of others falls into his hands.

Surely you have often felt the strange impression experienced when in singing through the scale the octave is reached, and nearly the same sensation is produced as by the fundamental tone. The phenomenon finds its explanation in the view here laid down of the ear. And not only this phenomenon but all the laws of the theory of harmony may be grasped and verified from this point of view with a clearness before undreamt of. Unfortunately, I must content myself to-day with the simple indication of these beautiful prospects. Their consideration would lead us too far aside into the fields of other sciences.

The searcher of nature, too, must restrain himself in his path. He also is drawn along from one beauty to another as the tourist from dale to dale, and as circumstances generally draw men from one condition of life into others. It is not he so much that makes the quests, as that the quests are made of him. Yet let him profit by his time, and let not his glance rove aimlessly hither and thither. For soon the evening sun will shine, and ere he has caught a full glimpse of the wonders close by, a mighty hand will seize him and lead him away into a different world of puzzles.

Respected hearers, science once stood in a different relation to poetry than at present. The old Hindu mathematicians wrote their theorems in verses, and lotus-flowers, roses, and lilies, beautiful sceneries, lakes, and mountains figured in their problems.

"Thou goest forth on this lake in a boat. A lily juts forth, one palm above the water. A breeze bends it downwards, and it vanishes two palms from its previous spot beneath the surface. Quick, mathematician, tell me how deep is the lake!"

Thus spoke an ancient Hindu scholar. This poetry, and rightly, has disappeared from science, but from its dry leaves another poetry is borne aloft which cannot be described to him who has never felt it. Whoever will fully enjoy this poetry must lay his hand to the plough, must himself investigate. Therefore, enough of this! I shall reckon myself fortunate if you will not repent of this little excursion into the flowery dale of physiology, and if you take with yourselves the belief that we can say of science what we say of poetry,

> "Who the song would understand,
> Needs must seek the song's own land;
> Who the minstrel understand
> Needs must seek the minstrel's land."

[1] A development of the theory of musical audition differing in many points from the theory of Helmholtz here expounded, will be found in my treatise *Beiträge zur Analyse der Empfindungen*, 1886.

THOMAS PAINE IN ENGLAND, 1787-92.

BY MONCURE D. CONWAY.

ALTHOUGH my fresh information relates chiefly to Paine's residence in Paris, I have several new items concerning his sojourn in England, where he arrived early in September, 1787. He stopped at the White Bear, Piccadilly, only long enough to place with a publisher a pamphlet he had written in Paris, then went to his native town, Thetford, for a long visit to his widowed mother, then in her ninety-first year, on whom he settled an annuity. After a brief visit to Paris in 1788, to secure the patent of his iron bridge, he returned to England in the spring, and passed most of the summer at Rotherham, Yorkshire, where a workshop was fitted up in the iron works of Messrs. Walker. The bridge-model, two hundred feet long, was set up on Paddington Green in June, 1790, and exhibited at a shilling admission. Most of the above items are in my "Life of Paine," but I now add a note written by him to Jefferson, February 16, 1789, which reveals a picture of Paine in his Yorkshire workshop worthy the attention of an artist.

"Having found a straight wall suited to my purpose, I set off a centre and five feet for the height of the arch, and forty-five feet each way for the extent; then suspended a cord and left it to stretch itself for a day; then took off the ordinate at every foot (for one-half the arch only). Having already calculated the ordinate of an arch of a circle of the same extent I compared them together and found scarcely any certain distinguishable difference. The reason of this is that, however considerable the difference may be when the segment is a semi-circle, that difference is contained between the first and sixtieth or seventieth degree, reckoning from the bases of the arch. And above that the catenary appears to me to unite with the arch of the circle, or exceedingly nearly thereto. So that I conclude that the treatise on catenarian arches applies to the semi-circle, or a very large portion of it. I annex a sketch to help out my meaning.

"Having taken my measurements I transferred them to the working-floor. (1) I set off half the cord divided into feet; (2) the ordinates upon it; (3) drove nails at the extremity of every ordinate; (4) bent a bar of wood over them corresponding to the swinging cord on the wall. Above this first bar, and at the distance the blocks would occupy, I set off all the other bars, and struck the radii through the whole number; which marked the places where the holes were to be, and consequently the wooden bars became patterns for the iron bars.

"I had calculated on drilling the holes for 8d each, but found that I could punch a square or oblong square hole for 1d or 1¼ each. This was gratifying to me not only because it was under my estimation, but because it took away less of the bar in breadth than a round hole, and made the work stronger. I was apprehensive of difficulty in getting the work together owing to diverging of the bolts, but this I think I have completely got over by putting the work together with wood bolts and then driving them out with the iron ones."

The chief investor in Paine's bridge-enterprise was Peter Whiteside, an American merchant in London. Towards the close of 1790 Whiteside became bankrupt, and in 1791 his assignees demanded of Paine payment of six hundred and twenty pounds found on his books in connection with the bridge. I now find a note written from London by Paine's friend, John Hall, April 20, 1792, which suggests that this annoyance, and the unjust claim (which Paine paid), were due to political animosity arising from his reply to Burke.

"Mr. Paine was arrested as the papers mention in that public manner by the manœuvres of his opponents, on the settlements of a bankruptcy from whom he had some time past had money on a mechanical scheme. He directly gave bail and was released. He speaks with confidence on carrying his political scheme by many societies arising at Manchester, Sheffield, and different parts of the country. He is now out of town and will be some little time longer composing what I expect may be deemed B—-s [Burke's] funeral sermon, and pointing out the further measures proper for the people to proceed on. The first and second part of 'The Rights of Man' are now printing and will be sold 1s 6d for both. He printed ten thousand of the second part which are nearly gone off. The Government papers execrate him to the highest degree; he says that they feel pinched and hurt, that makes them squeak so. There is now another society arose that seems to be a go-between on the reforming plan by stimulating the people to petition Parliament for a reform in representation. I deem it they may as well ask them to cut their throats, for the few interested in the slave-trade show you what interest will do in its support—and what can we expect when the whole phalanx of Government are so interested from the k—g [king] to the tidewaiter. But betwixt one and the other a reform of some kind will take place, I believe there is no doubt."

I have recently discovered the house in which Paine finished Part II. of his "Rights of Man," for which he was prosecuted and outlawed. He began writing this second part in Paris early in 1791, soon after the publication of Part I. (March 13, 1791), and it was published in London, February 17, 1792. The "Burke's funeral sermon" to which John Hall alludes was one of the various public letters written by Paine about that time,—probably "Address to the Addressers," in

which he charges Burke with being a masked pensioner. Part I. of the "Rights of Man" was begun early in November, 1790, at the Angel Inn, Islington, and completed in Harding Street,—the house undiscoverable, but not far from Newton Hall, where the positivists gather to hear Frederic Harrison and other leaders. As to Part II. I was long puzzled about the place where it was written, because I had taken seriously the words of the indictment that "with force and arms at London aforesaid, to wit, in the parish of St. Mary le Bow, in the Ward of Cheap, he, the said Thomas, wickedly, maliciously, and seditiously, did write and publish, etc." On consulting some old lawyers, however, I learned that this reference to the city parish was a mere formula, a legal fiction, meant to certify the jurisdiction of the Guildhall Court. It did not at all imply that Paine really resided in that parish. Having got off this false scent, I discovered that Paine resided, during the year 1792, until he left for France in September, at the house of Thomas Rickman, a publisher and bookseller. The house was then and is now No. 7 Upper Marylebone Street. It is now a bookbinding establishment, and the present occupant tells me that to his own knowledge it has been a "bookbindery" for over seventy years. There is little doubt that it has been such since Rickman's time. The front shop has the same old bookshelves, and otherwise has been little changed. It is a fairly comfortable house of three stories. In this house the London radicals gathered around Paine up to the time when the government became cruel. Among them Romney, who painted his portrait (now lost), Sharp, who engraved it, Mary Wollstonecraft, Horne Tooke, Sampson Perry, Dr. Priestley, Col. Oswald, Joel Barlow.

I have a diary kept by Paine's friend John Hall, then in London (1792), which contains some suggestive entries. Hall used to attend the popular debating societies or clubs, some, those of mechanics, held in the public houses. The reader will note the boldness of these societies, and their handling of large public questions, in April and May, as contrasted with the last, May 21, when the intimidated men could only venture to discuss whether accomplishments, beauty, or fortune should be sought for in marriage! Such was the panic caused by Paine's prosecution. About that time the societies were suppressed, though it is said one of them survives in "The Codgers," who meet in a Fleet Street public-house. The Codgers are those who, when they could no longer debate, could silently "cogitate." John Hall's entries, so far as they report such events, are as follows:

"April 5, 1792. Coachmakers' Hall. The question about putting confidence in government—whether Ins or Outs, Whigs or Tories. The proposer stated, from historic facts, that there was no dependence to be placed in them, but that the people at large should begin to act for themselves. It went against him by a small majority. Returned at eleven.

"April 9. King's Arms. Lotteries improper, and Pitt was responsible for continuing them.

"April 14. Mr. Paine and Mr. Henry had called when out.

"April 16. King's Arms debate. Whether the people in general were in favor of a direct abolition of the Slave Trade. Carried in the affirmative by a great majority.

"April 20. Met Mr. Paine; he goes out of town to-morrow to compose what I call Burke's funeral sermon. He went with me to an acquaintance where he had just dined, near the bridge foot, to desire him to introduce me to Dr. Priestley for advice on what I intended to pursue; which he very readily agreed to, and, being a philosopher himself, he will give me any information, and show me his philosophical apparatus, which he says is capital. He gave me a card of his address, and I am to go up with him to Hackney whenever I please to call. Parted with Mr. Paine at Fleet Market. [Hall was a scientific engineer and electrician.]

"April 23. King's Arms Debate. On a political and commercial alliance with France. Carried in favor. Much good sense urged by one person on the trade of war.

"April 26. Coachmakers' Hall Debate. On the propriety of Sheffield and Manchester addressing Paine and Tooke. Carried in favor by a small majority.

"May 3. Found Mr. Paine is returned to town; had called on me; left an advertisement of a fresh association. [Associations for propagating the principles of Paine's 'Rights of Man' were springing up throughout the country.] Coachmakers' Hall Debate: Praise or censure on the new Society for Reform, from men not principles. *Noes* seem to prevail; *pro* much broke by a man answering.

"May —. Freemasons' Arms Society. Much said in favor of Mr. Paine and 'Rights of Man,' and nothing unmanly against him.

"May 11. Carpenters' Hall House. Noisy meeting. The question, Are societies good, etc.

"May 15. To Johnson's [Paine's first publisher, who lost courage]. Asked him on Mr. P—e. He said it might be feared, but he was yet safe. [The indictment of Paine is referred to. For the first time his friend Hall enters his name with a blank.]

"May 21. King's Arms. Question, Accomplishments, beauty, or fortune be first married? Did not stay finishing."

This, the last debate mentioned by John Hall, was on the day of Paine's indictment.

"July 27. To Johnson's, St. Paul's. My countryman [Paine] out of town; his trial does not come on until winter.

"August 5. Mr. Paine called on me between 2 and 3, looking well and in high spirits.

"August 15. Bad news from France; riots.

"August 16. Mr. Paine has just called on me.

"September 1. To Johnson's; saw Barlow, the American author of 'Advice to Privileged Orders.'

"September 3. A walk up to Newgate to see the Lord Mayor, as he passed by, drink his cold tankard with the Keeper, as he was going to Smithfield to proclaim Bartholomew Fair.

"September 6. Mr. Paine called in a short time. Does not seem to talk much, rather on a reserve, of the prospect in political affairs. He had a letter from G. Washington and Jefferson by the ambassador [Pinckney, who had just arrived in London]."

Paine left England on September 14, 1792, and never set foot on it again. His English adherents were scattered abroad, and as for the debating societies, John Hall's last entry concerning them is: "November 26. To Change, but could not find where debating society met." The royal proclamation, at the end of May, against seditious utterances, virtually suppressed the societies. But it will be seen by some of the above entries that Paine had not carried the London masses with anything like unanimity in favor of his new gospel of rights. Only a small majority of one society approves the addresses of Sheffield and Manchester to Paine; in another (May 3) it is doubtful whether a majority does not favor a reform society which was formed really to oppose Paine's appeal to first principles.

I close this paper by translating a letter (unpublished) written from London by the French Minister, Chauvelin, referring to the reform society. It is dated May 23, 1792, two days after the indictment of Paine, to whom the writer was not friendly. ("French State Archives." Angleterre. Vol. 581, fol. 48.)

"An association has been formed . . . . including some eminent members of the commons and a few peers. The writings of Mr. Paine, which preceded a little this association, have done it infinite harm. It is suspected of concealing under a veil of reform long demanded by reason and justice the intention of destroying a constitution equally cherished by the peers whose privileges it consecrates, the wealthy whom it protects, and the nation to which it assures all the liberty desired by a people methodical and slow, and who, constantly occupied with commercial interests, do not wish to be continually agitated with public affairs. In vain have the friends of reform protested their attachment to the constitution. Vainly have they declared that they wish to obtain nothing save by legal ways. People persist in disbelieving them. They see only *Paine* in all their projects; and this writer has not, like Mackintosh, rendered imposing his refutation of Mr. Burke's work. The members of the association, although of opinions very different, find themselves enveloped in the disgrace, now almost general, of Paine. Such are the prejudices that they dare not do a good thing because it is advocated by a man whom they fear. Paine is mixed up in all the questions which trouble the comfortable class which values above everything a quiet life. Thus, up to this time, the members of the new association have obtained little hold on the people, except in some towns of Scotland whose interests they have defended."

A LOVER OF TRUTH.

Mr. William Rough, a real-estate agent, was a gentleman without any affectation, blunt in his speech, and not without coarseness in his manners. It cannot be said that he was much liked among his acquaintances, and those who had business with him preferred to deal with one of his two clerks; but he prided himself on the cause of his unpopularity, which he unhesitatingly attributed to his love of truth. In his eyes, all men were miserable sinners; all the poor were thriftless vagabonds; all the wealthy were robbers who had grown fat on the fleecings of the poor; all politicians, the President included, hungry office-seekers; all labor-agitators demagogues; all lawyers frauds; all physicians quacks; all clergymen hypocrites; and all, without exception, save himself, were liars. It was his favorite pastime to discourse on truth, and he used to contend that, for an ordinary mortal, it was impossible to live and prosper without telling lies. It is true that he "boomed" his real estate when he wanted to sell, and undervalued that of his neighbors when he wanted to buy. Truth-loving as he pretended to be in his private conversation, he was shrewd enough in his business.

During the summer season, when his business was light, he used to travel, and one of his main enjoyments was to shock strangers with his peculiar views whenever there was an opportunity at the hotels or on the trains.

Once, in a Pullman sleeping-car, he met an elderly gentleman, dignified and obliging, who was quietly reading his papers. Curious to know with whom he had the pleasure of sharing the compartment, Mr. Rough intruded himself repeatedly on his fellow-traveller's notice, but without success, for his partner was not less polite than reserved. "What method of lying," Mr. Rough thought to himself, "may his specialty be? He is apparently no clergyman, no physician, and no business man. Perhaps he is a professor."

At length Mr. Rough took occasion to launch the conversation, carried on mainly by himself alone, into the subject of truth and falsehood, and he paraded his hobby with his wonted vigor. "All men are liars," he said, "and they hate to hear the truth. I know it from experience, for I am much disliked at home for telling the truth squarely and unreservedly. Society is built upon falsehood; success is possible only by trampling truth underfoot; religion is hypocrisy; charities are merely given to evade justice; they are shams. In brief, all human intercourse is a great public lie."

The stranger looked up at Mr. Rough. "I suppose," he said, "there is much lying done in the world by people who cannot appreciate the worth of truth. Yet business succeeds in the long run only when conducted with honesty. The tenets of our churches are undoubtedly full of errors, but there is a spirit stirring in the souls of men that seeks for the truth. He who errs is not a liar. Truthful is he who obeys the truth as he best understands it. Lies go a little way, but the truth abides. Our public life is of a mixed nature: there is truth and error, and, I am sorry to add, also much conscious lying. But if truth were altogether absent, society would soon cease to be, for truthfulness is the sole basis of healthy conditions in our social intercourse."

"There I have you," interrupted Mr. Rough; "the truth is not only absent, but it is directly offensive and therefore injurious. Is there any one who even for a single day could tell the truth, the whole truth, and nothing but the truth?"

"My dear sir," replied the stranger, "you are by no means requested to tell the truth, the whole truth, and nothing but the truth to everybody whom you meet. I do not ask you to tell me that my face is homely, nor do I myself bore others with the truth—let alone the whole truth—of my private affairs, whether I smoke, or drink, or chew, or am a total abstainer. All that is requested of you and of me and of everybody else is to tell the truth where it is our business and duty to tell the truth; and it is not sufficient, nor the right thing, to tell the truth squarely; we must tell the truth with discretion. The physician who shocks a sick man by bluntly telling him, 'your disease is fatal,' may be guilty of a criminal offence in so far as he hastens the dissolution of his patient. He must be on his guard and break the truth to him in an appropriate way, as the occasion requires. Due reserve is not lying, and bluntness is not love of truth. Consider the consequences of your words, and choose such expressions as will bring about the result at which you truthfully aim."

The train was approaching the next station, and the stranger rose, taking his valise. "But I maintain," said Mr. Rough, "that we cannot reach our aims without telling lies, and that is the reason why all men are frauds and all life is a great social lie."

"You are mistaken," said the stranger, "and I advise you to subject your opinion to a thorough and searching revision. I do not know your special predicament, but there must be an unhealthy spot somewhere, either in your heart or your logic, or in both. Excuse my frankness. But if you cannot pursue your aims without telling lies, your aims are perhaps not good."

"I beg your pardon," cried Mr. Rough.

"I repeat," continued the stranger, quietly, "I do not know your case, and it is not my business to cure the diseases of your errors; but the greatest probability is that while you are faithfully telling the truth to everybody, you carefully hide the truth from yourself. Honestly, did you ever make up your mind to tell yourself the truth about yourself squarely and bluntly? Did you never make your vanities appear in your eyes as virtues; and did you never palliate your most obvious vices? They are perhaps known to every one who meets you, while they remain hidden to yourself. Remember,

> "This above all: to thine own self be true,
> And it must follow as the night the day
> Thou canst not then be false to any man."

The train stopped. "This is my station," said the stranger; "I am sorry that we disagree on the most important question of life; but don't give up your love of truth, even though you erroneously regard truth as a nuisance. I hope that you will understand the problem better as soon as you begin with your truthfulness at home, for there it is most sorely wanted. Good-by."

The stranger left the train, and Mr. Rough was at leisure to think over the lesson which he had just received.

P. C.

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OMAR KHAYYÁM.

BY M. D. CONWAY.

I. HIS COMMUNION CUP.

Somewhat over eight centuries ago there were in a college at Naishapúr, Persia, three young friends,—Nizám Ul Mulk, Hassan Sabbàh, and Omar Khayyám. These youths entered in a compact, that if either should reach power or wealth he would share with the two others. Nizám Ul Mulk, on becoming Prime Minister, offered his two friends high offices at Court. Hassan Sabbàh accepted, but Omar Khayyám declined ; he had become an astronomer, also a poet, and the Prime Minister gave him what he desired, an annuity sufficient for the erection of an observatory in his garden, and ability to cherish his own roses and his own thoughts without carrying either to market. Of the two fellow-pupils whom Nizám thus befriended, Hassan, who chose the Court, ultimately organised a fraternity of pious assassins, one of whose victims was Nizám, his benefactor ; while Omar, who chose privacy, now gives the good Prime Minister a share of his own immortality.

When Omar Khayyám made that choice, sectarian civil strife was raging in that region. With their dogmas and divisions he could have nothing to do : his religion was in the Koran of the star, the Avesta of the rose and the vine. The miracle of his faith was the heart of man ; and to him that heart is still responding, after all those seventy-two warring sects are extinct, or only traceable in the satires of his pages, as fossils in the geologist's studies. But one reason for the hold Omar Khayyám has on the intellect of our time is that he deals essentially with the successors to those same dogmas, which, under new names, still haunt the mind of Christendom : he punctures Calvinism with divine indignation, formalism, asceticism, puritanism, ritualism, so pointedly that his verses are alive as if written yesterday. Some fifteen years ago, when I printed in my "Sacred Anthology" prose translations of his heretical quatrains, these were selected by some orthodox critics for especial lamentations,—a curious confession that our Christian dogmas are little wiser than those of Persian Islâm eight centuries ago, and a notable tribute to the ancient genius who speaks more pertinently to the superstitions of our century than any poet born in it.

There is indeed one respect in which Omar Khayyám's reputation suffers by reason of his living relation to the thought of our own time. Ordinary readers, finding his thoughts so applicable to-day, make no allowance for distance in time and space in one point where it is required ; that is in his enthusiastic laudations of wine. Martin Luther wrote :

> "Who loves not wine, woman, and song,
> He lives a fool his whole life long."

But that which is allowed to the leader of the Reformation is inadmissible in a heretic. Some of this old Persian's admirers interpret his beloved wine as mystical, a symbol of divine inspiration. There is no foundation for that. His wine is a symbol, but not of divine inspiration,—rather of human inspiration. We owe to a lady, the late Mrs. Cardell, a Persian scholar who lived long in the East, the elucidation of this matter. In an admirable paper in *Fraser's Magazine* (1879), she pointed out that in Omar Khayyám's time and region, wine-drinking had no low associations, but the reverse. Although drunkenness was not an evil of the time, the Moslem Puritans regarded wine with especial hatred, not on account of any intoxicating quality, but because of its association with gladness, mirth, good fellowship, earthly happiness. "The wine-parties," says Mrs. Cardell, "were in fact nurseries of all the intellectual life of the time, which was unconnected with religion, and did much to counteract the dulness of orthodox Mohammedan life." The hostility to it was much like the puritanical horror some pietists now have of dancing and theatres. Those fighting Moslem fanatics wished men to scorn earthly life, and welcome death as an entrance to such pleasures. Hassan Sabbàh, mentioned above, who founded the religious fraternity of assassins, occasionally narcotised one of them and had him conveyed to a palace (like Shakespeare's Christopher Sly), where he was for several days indulged with all sensual delights ; then another narcotic was administered, and the soldier was carried back to his hardships. On awaking he was told that he had been in paradise enjoying pleasures that would be his eternal portion if he obeyed his chief and Allah. In this way the zeal of fanatics was

stimulated. The wine of Omar Khayyám and his friends was thus not merely something to drink; it was the supreme response of the earth to the sun, and symbolised a separation from otherworldliness, a defiance of morose and gloomy dogmas and fears. It is probable that the wine-cup which Jesus passed round to his friends at supper was a similar cup of communion among people withdrawn from surrounding pharisaism. Omar Khayyám desired his circle of kindred spirits, when they met together, after he was dead, to remember "old Khayyám" and "turn down an empty cup." Probably Jesus said and meant no more, and for a long time after his death the annual supper was a merry festivity. (I Cor., xi.) It was Paul, whose pharisaism was rather intensified than removed by his conversion (Christianity's greatest misfortune), who turned the feast into a sanctimonious affair. There is little doubt that all the accounts of the supper in the Gospels are mythical variants of Paul's story in I Cor. xi, and derived from it. Jesus did not, any more than Omar, escape the charge of being a winebibber, because he ate and drank with publicans and sinners. His fellowship and his communion was with man.

This will not be agreeable reading for the prohibitionists, but it might be instructive to them. Among the many literary and artistic men whom I have met, I cannot recall but one prohibitionist (Professor Newman), nor one who did or does not drink wine, unless some college professors who abstain as an example to their pupils. Many prohibitionists really seem to be trying not so much to promote temperance as to puritanise the nation; otherwise they would not include in their project of extermination, along with drinks generally injurious, pure wine "that maketh glad the heart of man." I am writing this in Paris, amid the festivities of Carnival. Daily and nightly I see much of the people, and have not yet seen a tipsy person. Wine is cheap; all drink it. The American duty on wine is a heavier blow to temperance than prohibition will ever be able to remedy unless they insist on its removal. The cheapness is given to that which steals away man's wits instead of to that which helps his wits. The prohibitionists have not considered this last fact, nor understand why, though none write sonnets on beef and mutton, there is a large library of poems in praise of wine. Several of Omar's tributes to wine are strikingly like this passage in Esdras (xiv): "A voice called me saying, Esdras, open thy mouth and drink that I give thee to drink. Then opened I my mouth, and behold he reached me a full cup, which was full of liquid, but the color of it like fire. I took it and drank; and then my heart uttered understanding, wisdom grew in my breast, for my spirit strengthened my memory." Dr. John Chapman, the well-known editor of the *Westminster Review*, in whose house Emerson staid while giving his lectures in England (1848–1849), told me that it was remarked by himself and others that Emerson did not enter easily into conversation until he had taken a little wine. He was abstemious, drank very little, but that little opened his cabinet of treasures like a key. In his "Hafiz" Emerson says wine was mixed with Hafiz's clay. Emerson loved Omar Khayyám also, and translated a quatrain of his before he was known in England. I have it not before me, but it is nearly this:

> "Each spot where tulips prank their state
> Has drunk the life-blood of the great;
> The violets that deck the plain
> Are moles of beauties Time hath slain."

"Though I drink wine I am no libertine," says Omar Khayyám.

> "Give me a flask of wine, a crust of bread,
> A quiet mind, a book of verse to read,
> With thee, O love, to share my lowly roof,
> I would not take the Sultan's crown instead."

He thinks that if the Devil only drank wine he would become a good fellow, which recalls the personal asceticism Goethe ascribes to Mephistopheles, who is shocked by the nudities of Greek art, and though he draws wine from the table in Auerbach's cellar for the students, does not drink any himself. Isa's breath turns water into wine; but Mephistopheles turns the wine into fire-water, to reduce the students to "bestiality,"—pretty much the miracle of those who tax wine and leave whiskey cheap. Omar's wine is that of his Isa's (Jesus's) vernal breath. Sensible men, he tells the Mollahs, go to the tavern to repair the time misspent in mosques. It will be evident to any careful reader that a good deal of this kind of writing is satirical and defiant. Omar Khayyám praised wine a good deal more than he drank it. The Moslem Mollahs had made wine a religious test, and he accepted it. Something of the same kind still goes on in the East. The genuine Moslems never drink wine, and they are without any literature except that of these ancient Persian wine-drinkers, which they read, while interpreting the wine in a mystical way. Omar Khayyám advised the Mohammedans to sell their Koran to buy wine; they would understand then that if pleasure is a good thing in paradise it might as well begin on earth. It would bring them into communion with the earth and with mankind. His writing is not Anacreontic, but rather in the vein of Robert Browning's opening fable in "Balaustion's Adventure." Apollo visits the Fates to plead with them for an extension of the thread of Admetus's life. He finds the weird sisters in a gloomy dismal cavern, and they tell him that he ought rather to plead for his friend's release from the miseries of earthly existence. But Apollo offers them a bowl of wine, which makes them merry, and they begin to feel that existence is not so bad after all.

"THE SOUL OF THE BISHOP."

BY F. M. HOLLAND.

This is the title of a very interesting book, which deals, like "Robert Elsmere" and "John Ward, Preacher," with the conflict between the love that unites and the creed that separates. The deep, strong current of argument is usually kept in the background, its results are occasionally brought out with great dramatic power, but much of the meaning of the book is shown by the lively conversation of servants and other subordinate characters. I shall not deprive my readers of the pleasure of finding out for themselves how it comes out; but they can be sure that the story is told too well to be abridged without serious loss. The underlying argument deserves to be presented more clearly and fully in these columns than could be done in a novel without injury to artistic unity.

The hero is a handsome young bishop of the Church of England, who is liberal enough to go on principle to a ball-room. In its corridor he wins the heart of a lovely girl, whose eager face had fascinated him as he was preaching in his cathedral. There is nothing to prevent an immediate marriage, except Lent. She has thought herself a faithful daughter of the Church; but she is surprised to find him unwilling to come to the dinner-party by which her father wishes to announce the engagement.

"I don't think," she said, thoughtfully, "that you ought to have engaged yourself to me just before Lent if you meant Lent to interfere with proper attention to me, and it is a proper attention to me that you should meet my friends and my fathers's friends as my future husband. If it were not Lent, it would be a perfectly natural thing . . . . and I don't think it is at all right for you to slight me because of the season of the year."

"But, my darling," he exclaimed, "you keep Lent in some way yourself, surely."

"Never," she answered, "never. I believe in being good all the year round."

Soon after she tells her lover that she has been reading the Thirty-nine Articles, and asks him if he really believes them. He answers, "Of course"; but then she reads him the thirteenth, and says: "Now do you mean to tell me that God does not love good for its own sake, and that good cannot exist without a certain faith in an accepted creed?"

"Why, it amounts to this: If you do not believe in Christ, if you have not the grace of God, your goodness is wicked." He tries to explain in what sense he accepts the Articles; but she becomes only more curious to find out what is really taught by the Church. She often spends half the night studying the Fathers and other standard theologians. She has many discussions with her lover about what is to become of good people who are not Christians. He assures her, in direct contradiction not only to the thirteenth but to the eighteenth article, that he does not think that any one, whatever his religion, "is totally cut off from the God who made him." She interrupts him with a cry of despair, for his admission makes her think that the doctrines of the Church are so false, that even those who profess to accept them cannot really believe them with sincerity. Why is she to believe what he cannot?

"You tell me," she says, "that I must believe those Thirty-nine Articles; then I must believe that a dear little innocent babe of a week old shall, if by some accident or other it has not been baptised, merit God's wrath forever. . . . Why, you will not even read the burial-service for the comfort of the living, over a child that, according to the Church's theory, has, for no fault of its own, been let slip into eternal damnation. . . . If you knew how wretched I am—if you know how anxious I am to believe everything as you would have me believe it, you would pity me. Now I understand what a poor woman, whose child died last year in the next village, felt like when she cried out that they had buried her baby like a dog."

Imagine the agony of a poor girl who keeps on studying orthodox books in what she calls "my feverish anxiety to believe what my reason tells me is perfectly impossible." She sits up all night reading the four Gospels over and over again, and at last finds herself "regarding it all as a mere fable, having no reverence for the religion of the present, and without any belief or hope in a world to come." She loves the Bishop passionately, but she has to ask him if he does not fear that their marriage would imperil his soul. No wonder that she says, "My whole life is a blackened waste, and the sooner it is over and I am no more able to think, the happier for me."

The worst of it is, that this is a very common case. I have just heard of an American girl, whose engagement with an orthodox minister ended in his telling her that unbelief had made her a prey to Satan. I knew myself a pious young man in a Unitarian divinity school, who devoted himself to studying the New Testament under a devout teacher of profound and liberal scholarship. My friend's chief anxiety was to find out precisely what Jesus had claimed to be; and his studies had led him to the painful conviction, not only that he could not accept the theology and ethics of the New Testament, but that he ought not to. I speak of this case because it illustrates a fact which is not mentioned by the novelist. Such scepticism is often very painful; and therefore it usually is very brief. The student I spoke of soon came under the influence of a writer whom he had hitherto neglected, Theodore Parker, and was thus enabled to go on as

zealously as ever in the ministry. The lady who was handed over to Satan is now a Unitarian.

Then again, I have known people pass on, without regret, from the theological to the scientific view of their duty and destiny. I see them live as happily and virtuously as any bishop; and I deny the truth of the words put into the mouth of the hero of this novel, "Cast aside your faith, break down the beliefs of your childhood, and what have you left? Nothing, nothing, nothing." Ministers, even in novels, ought to let the people know that all the churches are now provided with fire-escapes.

Justice to the Episcopalians in America requires me to add that a bereaved mother finds more mercy here than in England. The American prayer-book merely says, at the beginning of its burial-service, that it "is not to be used for any unbaptised adults, any who die excommunicate, or who have laid violent hands upon themselves." This little point is all the more interesting because the Bishop in the novel says in his argument against expurgating the Articles: "It is proved beyond all question of doubt, that you cannot pull any constitution to pieces without doing a vast amount of harm." English Episcopalians talk in the same way about the danger of discarding the Athanasian creed, with its threats of damnation against all who do not believe a series of contradictions. This reminds me of the politicians who carried the election of 1888 by saying, as they do now, "It would ruin the country to change the tariff," and then passed the McKinley bill. The Church in America owes much of her prosperity to the courage with which she permitted burial of unbaptised babies, and dropped the Athanasian Creed as well as one of the Thirty-nine Articles. If she were to deal just as radically with what she says of baptismal regeneration and "the resurrection of the body," her position would be none the worse. As far as constitutions go, it is plain enough to an American that those of our States, as well as of our nation, owe much of their strength and value to the frequency with which they have been revised. Creeds and articles of faith really are like constitutions. If they cannot be amended, they ought to be repealed.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

THE SERMON IN THE VALLEY.

Now THE multitudes were gathered together in the valley nigh unto Bethany;

And Jesus stood in the midst of them and taught them, saying:

It is written in the law of Moses, To God belongeth vengeance and recompense;

And again in the prophet Nahum, God is jealous and the Lord revengeth;

But David saith also, God is gracious and merciful; his mercy is from everlasting.

But some shall say, How can these things be, and how can God have wrath and yet mercy, and vengeance and yet loving kindness?

Behold the truth which endureth from generation to generation;

For he that doeth evil is God's adversary, and the worker of iniquity is at enmity with the Lord.

God is not unrighteous who taketh vengeance. I speak as a man, otherwise ye could not understand;

Neither doth God make void the law by his mercy to them that transgress.

For what is vengeance but recompense?

It cometh from God and returneth unto him again; for thou thyself givest and gettest it.

And will ye call that man guilty who runneth not in the race?

Verily ye will not if he be halt.

Or will ye esteem him to be a runner if he see not his way to walk?

Verily if he be blind ye will say, The Lord will not hold him guilty.

I charge them that would be just in this world that they be not high-minded, nor trust in uncertain judgment:

For there were two brothers in one household, even Jacob and Esau in the house of our father Isaac.

As it is written, Jacob have I loved, but Esau have I hated.

Sayest thou God was jealous and his anger against Esau was kindled without a cause?

Nay, but rather that Esau sold his birthright,

Which things are an allegory.

Therefore, if thou seest thy brother have faults reprove him, but with loving kindness lest in spirit which thou knowest not, he be halt or blind.

Let him be blessed in his doing who doth hunger and thirst after righteousness.

Let him despise not the time of small things, but let him rather be grateful.

Let him say unto the wind that holdeth back, I am glad, and unto the flood that delayeth, I rejoice.

Let him say unto the pestilence, I am happy because of thee; and unto evil, Thou art good, for thou hast taught me.

Verily I say unto you, If your heart be fixed, no evil can come nigh unto you or touch you.

There was an oak tree planted by a water-course which flourished exceedingly.

But the gardener came and dug about the tree and transplanted it to an high place.

And the tree cried, I perish for lack of water.

But lo! the heavens opened and the clouds poured down rain.

Again the tree cried, My feet are in stony ground where there is no nourishment.

But the roots thereof did spread, and went down, and gathered nurture where none was.

And again the tree cried, I cannot live; for the stormy wind that is round about me on this high place.

But the wind taught it; aye, even the roots thereof that they took firmer hold.

And the tree that was but a sapling by the water-course waxed strong,

And grew and became a great tree, and the fowls of heaven lodged in the branches thereof.

Learn a lesson of the oak tree. For which of you fathers reproveth not his son and correcteth him?

And whether is it better that a young man be slothful, or that he learn in his youth to endure hardness?

Verily as a father pityeth his children so is the loving kindness of God to the children of men.

But say not when tribulation cometh, My father is wroth with me; but rather, It is good that I suffer that I may learn;

For tribulation worketh patience, and patience when it is finished bringeth forth good to as many as are called of God;

For the calling of God is of the spirit of God.

And as many as have the spirit are called of the spirit.

But I say unto you God calleth not with his mouth, nor doth man hear the voice with his outward ears.

The life is more than flesh as the body is more than raiment;

But I say unto you also that the spirit of man is more than his life.

For after the fashion of this world men say, Lo! this man is good, for he doeth good.

Verily his doing is a sign of his heart's intent; but God only knoweth his goodness;

For his ways are not as our ways, nor his thoughts as our thoughts.

There is that mercy which is more merciful to withhold than to grant.

There is that loving kindness which is more lovely to smite than to spare.

There is that charity which is more charitable to take than to give.

For if ye give unto all that ask, these shall all become beggars, and thou thyself become like unto them.

It is better to give help to earn than money without labor.

For which of you will give unto his children all they ask? And what shall it profit a child to have all his desire?

Truly at the end the sweet shall be as gall. But the affliction that chasteneth shall be sweeter than honey and the honey-comb.

Behold, I say unto you, vengeance belongeth unto God.

Hath God passions like unto men that he should be angry, or hath he weakness that he should desire the death of him that hateth him?

Doth God fear him whom he smiteth?

Behold God is over all and through all and in all.

Shalt thou say to him who hath a withered hand, Why didst thou do this unto thyself?

Or shalt thou say to the blind, Why didst thou pluck out thine eye?

The hand withereth, and the eye loseth sight, and the man endureth though he hath no power over such of his members as perish.

Say ye not when the lightning smiteth a man and he die that it was God slew him.

Nor say of him whom the waters overwhelmed it was God's doing;

Neither of him whom the adder hath bitten, It is God's wrath.

But say rather that God maketh his lightnings to fall, and his waters to rise, and his serpents to sting;

And lo! that man who standeth in the way thereof is like unto the withered hand or the eye that was plucked out.

For the ways of God are changeless; his law is from everlasting to everlasting;

And woe unto him who transgresseth one of the least of these;

For iniquity is not always guilt, nor transgression crime,

And a man's foolishness shall ensue evil even as the mischief that he deviseth.

Verily the kingdom of this world is round about you, but the Kingdom of Heaven is within you, and the ruler of that Kingdom cannot be slain.

Neither by the lightning, nor the waters, nor the serpent's sting.

For in God's image were ye made, inhabitants of a celestial city eternal in the heavens.

Say not that God sendeth plague, pestilence, and famine;

Neither say it is he who hath given sorrow in anger; for all things work together for evil unto them that do evil;

But unto them that do good all things work together for good.

And when Jesus had done speaking many came unto him saying, Master, we heard what thou didst say unto the young man;

For when he asked thee, What shall I do to inherit eternal life? Thou didst say unto him, Sell all

thou hast and give unto the poor, and come and follow thee.

Is it then required of all to do this?

Jesus answered, Nay, I said not so; for when I spake I spake unto the young man, and not to another.

Then said he that had spoken, Tell me then, I pray thee, what must I do to inherit eternal life?

Now Jesus knew this man's heart, because of the power given him from on high, and he saith unto him,

Go thy way, and what thy hand findeth to do, do that diligently as unto the Lord. Be silent and let thine acts speak for thee. Sufficient unto the life is the duty thereof.

And one of the multitude lifted up his voice and said, Verily thou speakest as one having authority. Tell us now plainly whether thou art God or man.

Jesus answering saith unto him, Can'st thou tell me of thyself what in thee is of God and what of man?

And he was dumb. And when Jesus perceived that he answered not he saith again unto him,

When thou knowest what in thine own self is of God and what of man, then will I tell thee whether I am God or man.

ONEIROS AND HARPAX.

When God, the Lord, had finished heaven and earth, he created man out of the dust of the ground in his own image, in the image of God; male and female created he them. And the Lord planted a garden in Eden and made trees to grow that bear fruits good to eat and pleasant to the sight, and God took the man and put him into the garden of Eden, commanding him to dress it and to keep it. And the man did as he was bidden.

And man saw the trees of the garden; he saw the rivers and the rocks, the birds that lived in the foliage of the trees, and the beasts that roamed through the woods, and the creation of the Lord was imaged in his mind. Thus man lived without cares and tribulations, in a state of perfect contentment. He attended to the trees and ate of their fruits; he thought neither of the future nor of the past, but lived solely in the present, in blissful indifference; and when he was tired he lay down on the soft sod beneath a tree and slept a dreamless sleep.

And God the Lord was displeased with his work and said to himself, "The man whom I have made and into whose nostrils I have breathed the breath of life so that he is life of my life, worthy to be called my son, leads a life of indolence and has become like a spoiled child. I have done the work of creation, and he enjoys it; and he lives in indifference, knowing not good nor evil. He is a living soul, but not knowing death, he comprehendeth not what life is and gives no care to investigate what is truth and error. I will teach him to make comparisons and he will learn."

And God called two angels, Oneiros, who stands at his right hand, and Harpax, who stands at his left hand, and said to them: "Go down to man and when he falls asleep, stir thou, O Oneiros, the images of his soul and impart to him the secret of creation so that he may become like unto me, his God and Heavenly Father. But when he awakes, O Harpax, be quick and snatch away the dreams he has shaped."

The two angels did as they were bidden. When man fell asleep Oneiros approached him and caused him to have dreams, and man created out of the images of his soul new things. Harpax, however, was ready to seize the beautiful dreams and destroy them as soon as man awoke.

Now man began to compare the things and animals which God had made with the creatures of his own imagination, and he thought to himself: "The world which I create in my dreams is far superior to the world made by God," and he began to be dissatisfied and complained about the faults of God's creation. "O Lord, God, my Father," said the man, "thou sendest me Oneiros with beautiful dreams, why dost thou allow Harpax to take the dreams away from me as soon as I awake?"

And God the Lord said: "Oneiros will show thee the tree of the knowledge of good and evil which I have planted in Eden, but know thou that I have placed Harpax who will not allow thee to eat of its fruit. I offer thee the gift of life, but death is the price which must be paid for it. I have created thee unto my image, but if thou wilt become like unto me, thy God and thy Creator, thou must open thy eyes and learn, thou must be active to do work; thou must give shape and real existence to the dreams of thy fancy; thou must create as I do."

And God left the man and the woman, but Oneiros and Harpax staid with them.

And the man said to the woman: "Our ambition to be like God implicates us in danger; life begets death, the knowledge of good presupposes the experience of evil. Let us live contentedly and worry no longer."

This was the work of Harpax who took away from Adam's mind his dream of divinity, and the woman became very sad at heart and said to the man: "We are in a sorry plight. There is the tree of life and knowledge, yet God has forbidden us to taste of its fruit, for he has said: 'On the day that thou eatest thereof thou shalt surely die.' We are unhappy and miserable." So their souls were filled with melancholy thoughts, and wearied by their disappointments they experienced a feeling which they had never felt be-

fore; it was as if for a moment they had been overcome by old age and they fell asleep.

Now Oneiros roused their souls to new hopes, and the man saw in his dream that the woman had the miraculous power of restoring youth and imparting life. Yet when he woke up his dream was gone.

Such was the condition of the man and the woman when the serpent approached them with the words of the tempter. And the serpent said: "God doth know that in the days ye shall eat of the fruit of the tree of knowledge, your eyes shall be opened and ye shall be as gods, knowing good and evil." And the woman became confident that it was good to eat of the fruit of the tree of knowledge and they both ate of it.

Now Oneiros placed the man into an abode that was better than Eden, for it was the product of man's own work and everything was arranged as he wanted it; yet Harpax took away the beautiful abode and left man in dreary poverty. So the man and the woman decided to stay together for better or for worse in the struggle for life, in the faithful alliance of husband and wife, and to build up a world of their own in which everything should be as they wanted it. So they left Eden and the man began to pull up the thorns and thistles and to till the ground; and he ate the bread which he had procured himself in the sweat of his brow, and gave his wife also and they both ate of it. She bore to her husband children and their sorrows were multiplied, but they went on undaunted; they planned and in carrying out their plans they toiled, and they had failures and successes, yet they were satisfied that this world of work and struggle, in spite of so many dangers, miseries, and disappointments, was better than the Eden of unconscious happiness.

The man died and the woman died, for death was the price of the eternal rejuvenescence of their souls, but mankind lives. We are in mankind and mankind is in us, and we eat of the tree of knowledge; and the more we struggle and work the grander and nobler, the holier grows the image of God in our minds.

Oneiros and Harpax are still with us, and it is good that they are. If your child wakes up crying, you must know that Oneiros had given him some beautiful toys to play with, but Harpax took them away when he awoke. The little pessimist thinks that the world of dreams is more beautiful than the world of realities.

Do not mind the child's tears; if he but have energy in him, he will by and by become a man and build up the noble visions of his soul. P. C.

THE AMERICAN CONGRESS OF RELIGIOUS SOCIETIES.

We have to announce the birth of a new movement which we hope will prosper and increase to the benefit of mankind, and contribute its share to the enlightenment of the world. It is "The American Congress of Religious Societies," which convened in Sinai Temple, Chicago, on May 21st, 8 P. M., and having remained in session during the whole week organised on Saturday, May 26. Its object is: "To unite in a larger fellowship and co-operation "such existing societies and liberal elements as are in sympathy "with the movement toward undogmatic religion; to foster and "encourage the organisation of other non-sectarian churches and "kindred societies on the basis of absolute mental liberty; to se-"cure a closer and more helpful association of all these in the "thought and work of the world under the great law and life of "love; to develop the church of humanity, democratic in organi-"sation, progressive in spirit, aiming at the development of pure "and high character, hospitable to all forms of thought, cherish-"ing the spiritual traditions and experiences of the past, but keep-"ing itself open to all new light and the higher development of "the future."

* * *

We looked forward to the Congress with great hope, but not without anxiety. The new movement is one of the fruits of the Parliament of Religions which took place during the memorable year of the World's Fair. We say one of the fruits, for the committees of the World's Fair Auxiliary Congresses are still in office, and as they have not yet finished their labors, we may expect that they, too, will produce some good or even better results. The religious committee has proposed to extend the work of the Parliament of Religions, so as to make its blessings a lasting possession of mankind, a κτῆμα ἐς ἀεί. And this "Religious Parliament Extension" is planned to embrace all creeds, Christian and pagan, orthodox and liberal; it is not intended to proclaim a new religion, but it invites all religious people to come into friendly relation, to exchange their ideas and explain their meaning. As a motto the saying of Isaiah i, 18, has been selected: "Come now, and let us reason together, saith the Lord." That such friendly intercourse is possible has been proved by the Parliament of 1893. What the World's Religious Parliament Extension wants is to be broad enough to let even the most narrow-minded find room in the movement. If we but apply to religious affairs the same rules of gentlemanly behavior which in worldly affairs are as a matter of course expected of everybody, we shall be able to clear away many prejudices and understand one another better. We only need patience and mutual brotherly assistance. The American Congress of Religious Societies is another and an independent movement. While the Religious Parliament Extension is liberal in the sense of excluding no one and opening its doors to all, the recent Congress proposes to bring about a closer alliance among the liberals. It is not for the Roman Catholics: it is not for the orthodox; it is for those who have thrown off the shackles of traditional authority and avow the principles of liberalism. There is a certain contrast between the two but no antagonism. Both movements are sorely needed, and we wish heartily that both may succeed. It is much needed that all liberal religions should unite, and that they should organise themselves and become better acquainted with one another. But it is more difficult to accomplish a union among liberals than among the old-fashioned orthodox, for so far their agreement appears to consist in negations only.

* * *

Dr. H. W. Thomas of Chicago opened the Congress of Religious Societies, and no better man could have been selected for the purpose, for he is one of the most prominent pulpit-orators, keen in thought, not afraid of hereticism, and highly esteemed by everybody. The active worker and propeller of the new movement is its secretary, Dr. Jenkin Lloyd Jones; he is here in his element as an organiser and founder. Dr. Jones is one of the most energetic men on the globe. He undertakes three or four great schemes at the same time and loses track of none of them. There is certainly no danger that he will let the movement go to sleep; if there is any danger it is that he takes too many steps at once. The innovations which he proposes are far-reaching, and he must be on his

guard lest he break down under their burden. He has left the Unitarian Church, of which he was a member, in order to be free from all fetters. This involves the obligation to refund to the Unitarian Conference an investment of seven thousand dollars, and Dr. Jones's congregation is willing to pay the amount. At the same time Dr. Jones proposes a new building of eight stories in height, which is to be a type of the church of the future, containing assembly halls, gymnasium, baths, business rooms for rent to pay the running expenses, and on the top floor the parsonage. God speed thee, courageous sailor, and give thee in the rush of business the necessary calmness of consideration.

* * *

It is a very favorable symptom of the vitality of the Congress that Dr. Jenkin Lloyd Jones's breaking away from the Unitarian fold did not explode the entire undertaking. The Unitarians have long since adopted the motto, "Truth for authority, not authority for truth," and extend to their preachers the widest possible range of liberty. They can justly say that the shackles of which Dr. Jones complains do not exist, and there is no reason to justify his act. His brethren might have taken offence and stayed away from the new movement, but they came and joined hands with him in laying the corner-stone of the new organisation.

* * *

The Congress of Religious Societies consists mainly of Unitarians, Universalists, Jews, societies for ethical culture, and independent liberals. There is no question about their having sufficient interests in common to establish a closer companionship, but we must not be blind to the rocks which threaten to sink the young craft. While scarcely any note of discord was heard during the Congress, we cannot help noticing a great divergency of aims and methods among its most prominent members. While Dr. Jones regards his liberalism as too broad for the Unitarians, Rabbi Hirsch, in whose synagogue the meetings were held, took pains to explain that the solution of liberalism is Judaism. "The Jews must raise their own flag," he said, and he expressed deep regret to see "some veterans of his congregation permitting their children to look with favor upon the new movement." Thus it appears that two leaders of liberal religious aspirations, Dr. Jones and Dr. Hirsch, employ diagonally opposed methods; the former carries to its extreme the principle of shaking off the dust of traditional authority from his feet, while the latter, cherishing the conviction that negations are not sufficient as a bond of union, appears almost as a champion of reactionary thought. Such divergencies, however, are good, and if they are not glossed over, but recognised in their full importance, will only give life to the new movement and increase its interest.

The Congress will meet once every year, either in May or June, and various branches will be founded in the East as well as in the West, so as to spread the spirit of fellowship and good-will among all the liberally minded churches and societies of this continent.

* * *

There were two addresses on the Philosophical Basis of Modern Theology; the one by the Rev. Merle St. Croix Wright, the other by E. P. Powell of Clinton, N. Y. Both took their stand upon the ground of a monistic world-conception, rejecting the old pagan notion of a dualistic Deity above the clouds, and inculcating the grandeur of the new God-conception, which is not less but more intensely religious than the old one. Mr. Wright is an impressive speaker and was, as Dr. Hirsch said at the close of the debate, "the right man in the right place, who said the right word at the right time."

BOOK NOTICES.

Macmillan & Co publish a beautiful little work, whose form perfectly harmonises with its subject, on *Leadwork, Old and Ornamental and for the Most Part English*, by *W. R. Lethaby*. The author gives an interesting historical sketch including an account of the material and of the craftsmanship necessary to its working, with a description of all the beautiful frames, domes, roofs, turrets, coffins, fonts, inscriptions, statues, fountains, and crestings in which his art has found expression. The illustrations are exceptionally fine. "The plumber's art," he says, "as it was, for instance, when the Guild of Plumbers was formed, a craft to be graced by the free fancy of the worker, is a field untilled. That some one may again take up this fine old craft of lead-working as an artist and original worker, refusing to follow 'designs' compiled by another from imperfectly understood old examples, but expressing only himself—this has been my chief hope in preparing this little book." (Pp. 148. Price $1.25.)

PROMPTINGS.

BY CHARLES ALVA LANE.

Nay God, I bring no voice, against they will !
Thou hast appointed toil: With purblind brain
I scan the riddle that the worlds contain,
And strive, with hands that feel their feeble skill,
To trace my answer in a work shall fill
Thy half-divined desire. Yet seems it vain
To carve on crumbling hours ; for life is fain
Of immortality's portentous thrill.

Yea, motives rise and strength and life's designs
From hopes that feed upon futurity,
As flowers drink the sun : and, promptingly,
From Godward heights, Ideals mark the lines,
Awry and graceless, that our toilings trace,
Sad of our weary hands and wistful face.

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THE OPPRESSION OF WOMEN.

BY PROF. E. D. COPE.

Mrs. Mona Caird, Miss Sara Grand, and the other ladies of their "persuasion," are furnishing some interesting reading nowadays. Representing the educated woman, with constitutional fluency they display the art of the pleader in excellent literary form. But the subject-matter of their discourse is so astonishing that some men rub their eyes in wonderment at what this eruption can be about; while others, more disposed to listen, stop to reflect seriously whether society is really upside down, or whether there is or is not something fundamentally wrong with so-called civilisation in its treatment of women. It is evident that a good many men have not reached any definite conclusion in their own minds as to the rights and wrongs of the situation. In consequence some men are disposed to grant all that is claimed, trusting to luck for the outcome, while others are urged to an undiscriminating hostility towards all women who are or wish to be educated, if an education only serves to sharpen their tongues in such wise. Others of both sexes are inclined to suspect that theses-writers know little of the normal relation which exists between men and women, and are quite oblivious to the *grande passion* which renders hard things easy and makes the world fit to live in.

The question may, however, be reasoned out in a judicial way outside of the influence of passions, either good or evil. If the universe is on a sound basis, as most people suppose, it ought to be possible to find out what the foundation facts of the situation are, on which a system of social life must repose. It is not my intention to go into an exposition of this subject now and here, but I only refer in passing to some previous attempts in this line.[1] There is one aspect of the case, however, which these ladies appear to have overlooked, and to which I will call attention. This part of the subject is so fundamental that men accept it as a matter of course in their lives. It is in fact a matter of instinct rather than of reason, and as such is rarely formulated, but men regard it as a foundation fact, like their senses and sensations, which require no explanation for practical purposes. I refer to the fact that the lives and conduct of men are determined by force in the hands of other men, and that they cannot escape from it any more than they can escape from the forces of nature. In fact, this human force *is* one of the forces of nature. The class of writers mentioned neglect this factor in men's lives, but think of it only as it appears to them in women's lives. But if men are subject to it, women must be also.

Advocates of women's entrance into state government frequently respond to the allegation that all government rests on force, by the counter assertion that that time has passed, and that government now rests on good-will and "the consent of the governed." The very word government, as well as its nature, however, implies the use of force against the unwilling; and if all mankind consented to uniform and harmonious lines of action, government would be no longer necessary. The fact is that not only government, but all human acts whatsoever are expressions of force; and another fact is that the greater force will always control the lesser, no matter whether the object to be attained be good or ill. It follows from this that the weaker members of society must always adopt measures for attaining their ends other than by the application of direct force, but must frequently use indirection. This is what men and women always have done under such circumstances, and always will do. It is, however, the burden of these lady doctrinaires, that women, the weaker sex, are compelled to use indirection! It is no wonder, then, that this kind of sentiment appears to some men sophomoric, and that others cannot be made to see what it is really about.

Let us illustrate from the ordinary experience of men. In any region away from police protection, men are very careful not to put themselves into the power of thieves and other dangerous characters, or even men whom they do not know, who have or may be possessed of superior physical force. In the presence of physically stronger men they are careful to observe civil manners, and to avoid the language of command. So much for direct physical force. The rich control physical force by its representative, money. Now every one knows that if a man desires the co-operation of a capitalist in his enterprises, he must not

[1] *Popular Science Monthly*; *The Monist*, Vol. I, No. 1; *The Open Court*, Nos. 64, 65, and 187.

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make himself disagreeable to the holder of the purse. The antagonism of the rich man is to be avoided, since he has in his hands power to neutralise the efforts of the less wealthy, even as an unconscious rival. Let us now place ourselves for a moment in the position of the shop-keeper and salesman. The fundamental element of success is to please his customers by his personal bearing towards them. Rudeness over the counter will effectually neutralise the attractions of his goods. If, however, the merchant gets control of the entire supply of certain goods, so that customers must buy of him, then the tables are turned. The preponderant force is on his side, and manners become less important to him as an element of success.

Apart from and beyond these personal aspects of the force question, lies the great truth that the courses of human activity are directed by forces which are rarely controlled by any single man. Wealth consciously or unconsciously aggregated and directed to a given end, determines the occupations and lives of the industrial population, as the weather and the crops direct the human forces which are dependent on agriculture. Men take advantage of these conditions, or lose by them, and no question of freedom or slavery can be considered in either case. It is necessity, so far as it can be understood, that confronts the individual man, and to this he must bend, or be broken. Men who are engaged in this struggle must use their energies to the best advantage, as they understand it, and questions of secondary importance must yield. They must use the modicum of force which belongs to them, and not waste it, and they will get what they can for the increase of their stock of force, and for the purpose of acquiring the pleasures for themselves and for those that are dependent on them, which the possession of force places within their reach.

It is impossible that women as a sex can stand on an equality with man as a sex in this struggle. Although this is perfectly well known, there are men and women who are clamoring for equality of the sexes. Such a proposition is a form of communism, like that which demands an equal division of property. On the morrow after the division, inequality would immediately appear. Let opportunity for the exercise of force be equally distributed between men and women to-day, to-morrow the superior force of men would assert itself. The claim of equal share in government by women involves a logical absurdity; and if it were granted in word, it could not be granted in fact, even if men were a unit in desiring it. The fact that there are men who support the idea only shows how inveterate has become with men the habit of drawing-room gallantry.

It may be inferred from what has preceded, that in the present writer's opinion, "might makes right." His opinion is, that since might makes everything, it is right in the long run. In some particular cases, however, it may and does make wrong. The direction of might obviously determines its utility. If the majority of people in a country are bad, it is evident that that will be a bad country, and nothing can long prevent such a result. The directing of human might is performed by the human mind, and if we want might to be right, we must cultivate right thinking and right feeling. The source of right thinking is experience; and the source of right feeling is love. The source of love is the relation between the sexes, and in this fact we find the true significance of that relation to all the other relations of men.

There is absolutely no reason why men should expend their energies on women, excepting as an expression of personal affection. In other words, were woman to be of the same sex as man, and were she aggregated into a separate nation in a separate country, she would be subject to all the conditions to which weaker nations have to submit. It is probable that in such a case her country would be invaded by emigrants from the men's country, whom she could not expel, and that she would ultimately succumb and experience the fate of the nations who resist the advance of the strongest race. This picture is in broad contrast to the position which she now occupies, and which is at least as good as that of man. The qualities which are special to herself are so useful and so attractive, and her *indirect* influence is so considerable, that she is excluded in great measure from the conditions of man's struggle for existence. Man assumes it for her, since she furnishes him with satisfaction of those parts of his nature which belong to the affections, and which his contact with men can never supply. This, then, is the "celebrated" sphere of women. It is not the product of human law or of man's "tyranny," but is the flower of her evolution, the product of nature's forces. When woman abandons it, she throws away her opportunity, takes brass for gold, and consigns herself to insignificance.

The views here expressed in no way encourage the idea that woman should be kept in ignorance. The better educated she is the more certainly will she know that the positions assumed in these pages are true. It is indeed ignorance of the facts, as it appears to me, that is at the bottom of much so-called "advanced" opinion on the subject. Particular women doubtless have just grievances against particular men. If under such circumstances such women see opportunity of bettering their condition, they should be permitted to do so. But if they are instructed they will know that it is on the sex instinct of men that they have ultimately to depend, and not on any preponderance of force. The law can only give them rudimental rights,

and nothing more; and they must depend on men to execute those laws. The rivalries of men, the law does not touch, so long as they are honestly conducted. If particular women cannot escape from association with unpleasant men, they can remember that men are even more frequently in the same disagreeable position in their relations with men, and cannot help themselves.

On the other hand, it must be remembered, that men do not cheerfully submit to be governed by those who are dependent on them. If necessity compels them to be so in some cases, no personal affection is possible in such a relation. Political opponents are enemies; and the importance of the interests involved determines the intensity of the hostility. Such hostility, be it mild or intense, is not compatible with the marriage relation. The fact is that one of the principal objects of government is the protection of the marriage relation, and any form of government which renders that relation undesirable to men has not long to exist.

OMAR KHAYYÁM.

BY M. D. CONWAY.

II. HIS GARDEN.

When Antioch College, at Yellow Springs, Ohio, was flourishing under the presidency of the most eminent educator of his time, the Hon. Horace Mann, it had for its motto: "Orient thyself." I know not who selected the motto, nor precisely what it was meant to convey, but there is a sense in which it becomes increasingly significant now that the Western world has come more and more under the influence of Oriental thought. The seventeenth century made the discovery of a "Republic of Letters" above all national partitions; the nineteenth century has revealed above racial divisions a "Republic of Religions." But our studies should go farther than the estimation of these great formations in the lump, and this is not so easy. The traveller who leaves his own region, where persons are individualised, and finds himself amid swarming populations of other races—Hindus, Chinese, etc.—can scarcely distinguish one from another, any more than if they were blades of grass. In a great festival at Allahabad, amid two millions of pilgrims, I had to pin a ribbon on the head-dress of my guide in order to follow him. Something like this occurs also to the reader of Oriental and Eastern classics. We are generally brought up to mass the books of the Bible in one, and it requires special studies to distinguish the varieties and shades of thought so bound up together and called the Word of God. But though we may have ceased to confuse such different and often antagonistic ideas as those of, say, Job and Jeremiah, Mark and Paul, we are still liable to lose distinctions in the Buddhist, Brahman, Moslem, and Zoroastrian literatures. Each of these Oriental literatures comprises intellectual differences as marked as those of Carlyle, Tennyson, Spencer, Emerson, Hawthorne, Goethe, Heine, or any other authors of our time.

At a time when America was not yet discovered by Europeans, and when Europe was mainly barbarous, Christendom being without anything that could be called a literature of its own, and holding Greek and Latin classics accursed, Persia had a literature comparable with that of the Elizabethan age. Nizámi, Jámi, Jellaleddin, El Rúmi, Háfiz, Omar Khayyám, Saadi, 'Urfu, Faïzi, to name some of them, are great and original thinkers. The literature represented by these men is a wonder of the intellectual world. Although Mohammedan fanaticism, like that which burnt the Alexandrian library,—saying, "its value is in the Koran,"—ultimately trampled out Persian genius, its development was largely due to the Moslem invasion. It is difficult now to realise that the hard Moslem system, not much better than an Eastern Mormonism, ever had that scientific phase which created chemistry in Arabia, and that artistic phase which built the Alhambra. However, it was not, I think, chiefly by that influence of its better days that Mohammedanism temporarily stimulated Persian thought; it was more probably by its rude iconoclasm in breaking up the previous dead formation. There is a wonderful Persian book called the "Desatir," ascribed by some scholars to the first century of our era. It was written by various hands, and impresses me (there is a good English translation) as a sort of Zoroastrian New Testament. From that book we learn that there had come upon Persia an era of barrenness. The religion of Zoroaster had sunk into ruts of formalism; his real teachings were forgotten; nobody believed anything. Then appeared a prophet, Sasan, much in the same way as John the Baptist in Judea: there was a revival; and it is said that a poet, Arda Viráf, was given a sacred narcotic that he might visit Heaven and Hell, and bring back tidings of the true religion. His reports are more beautiful than anything in Dante. I do not know whether this sacred fire was kept up, but if so, it was probably in a half-suppressed way, until the invasion and establishment of an alien religion (Islâm) released Persian genius (which is of the highest order) from bondage to dead formulas of Parsaism. (Some scholars identify this word with Pharisaism.) Islâm was then contented with a nominal conformity; it required some centuries for the conqueror, speaking another language, to discover that under such external conformity the mind of Persia might be thinking its own thoughts, and reviving the ancient Zoroastrian fire. Out of this condition of things arose Sufism, originally a compromise between free-thought and

Mohammedanism, corresponding to the compromise between rationalism and Christianity now represented in Unitarianism. But, as Emerson, Parker, and other minds left Unitarianism, and the best religious thought is more and more developed outside of it, so was it in Persia. Those great thinkers were unchurched. They retreated to their own gardens. Emerson's early poem, "Good-by, proud world, I am going home," is an unconscious refrain of Omar Khayyám's quatrains:

> "My law it is my own sweet will to obey,
> My creed to shun the fierce sectarian fray;
> I wedded Fortune, offered her a dower,
> She said, 'I want none, so thy heart be gay.'
>
> "Sooner with crusts of bread contented be,
> And water from the well, and liberty,
> Than crouch and fawn and bend the vassal knee
> To one who is nothing worth compared to thee.
>
> "O man, creation's glorious summary,
> Gaining and spending too much trouble thee;
> Arise and quaff the stern cup-bearer's wine,
> And live from life's annoys forever free."

I have thus far tried to bring my reader to the gate of the astronomer-poet's garden; but in it we can enter veritably only so far as we can "orient ourselves." That is, we must not westernise Omar Khayyám, not measure him by his approximation to our assumed Occidental culmination of wisdom, but be equally ready to measure ourselves by his wisdom. At the same time it is *ourselves* we are to orient; we may well leave behind our hemispherical conceit, our notion of the mere paganism of non-Christian races, but not our organic individuality, which represents our point of access to the universal reason. Lately the Omar Khayyám Club of London has been planting on the grave of Edward Fitzgerald, who introduced the quatrains into England, two rose-trees. The hips were brought from Omar's grave at Naishapûr and grafted on a rose-tree in Kew Gardens. They have never yet budded, but we are hoping to see next spring what colors the Persian rose will catch from English skies. But as to the poetic roses, it is equally important to graft our Western flowers on the Persian stem. That is our due orientation. We are too much confined to the grooves of our German-English-American line of mental and moral development and progress. Omar was more cosmopolitan. In his garden were the rose of Sharon and lilies of Jerusalem: its spiritual growths gained their rarest beauty from the poet's graftings of foreign flowers on his Persian stem. This stem grew, as I think, out of the heart of Zoroaster. Zoroaster divided the universe into "the Living and the Not-Living,"—or, as we might now say, the organic and the inorganic. He personified the living as Ahuramazda, but he did not personify the not-living. The evil power, Ahriman, was the later creation of Parsi theology. Omar Khayyám believes in one God, whose heart is Love. He says: "Diversities of belief have divided the world into seventy-two nations: from all their doctrines I have selected one—the Divine Love." This divinity he will not associate with the unbending and destructive forces of nature. On the inorganic universe he looks with the eye of an astronomer, and is, of course, an agnostic in philosophy, though not in religion.

> "Whilom, ere youth's conceit had waned, methought
> Answer to all life's problems I had wrought;
> But now grown old and wiser, late I see
> My life is spent, and all my lore is naught.
>
> "I solved all problems down from Saturn's wreath
> Into the deepest heart of earth beneath,
> And leaped out free from bonds of fraud and lies;
> Yea, every knot was loosed save that of death.
>
> "The shining lights of this our age who keep
> Ablaze the torch of art and science deep,
> Never see day, but, whelmed in endless night,
> Recount their dreams and get them back to sleep.
>
> "The stars that dwell on heaven's empyreal stage,
> Still mock the wise diviners of our age;
> Take heed, hold fast the rope of mother wit,
> These augurs all distrust their own presage.
>
> "For me heaven's sphere no music ever made,
> Nor jarring discords in my life allayed;
> Nor granted me one moment's peace, but straight
> Into the hands of grief betrayed.
>
> "These circling heavens which make us so dismayed,
> I liken to a lamp's revolving shade;
> The sun the candlestick, the earth the shade,
> And men the trembling forms thereon portrayed.
>
> "Ah, wheel of heaven, running a course so blind,
> 'Twas e'er your wont to show yourself unkind;
> And cruel earth, if one should cleave your breast
> What store of buried jewels would he find!
>
> "The good and evil with thy nature blent,
> The weal and woe that nature's laws have sent,
> Impute them not to motions of the skies—
> Skies than thyself ten times more impotent
>
> "Souls that are well informed of this world's state,
> Its weal and woe with equal mind await,
> For be it woe we meet, or be it weal,
> The weal doth pass, and woe too hath its date.
>
> "The wheel of heaven still holds its set design
> To take away thy life, O Love, and mine;
> Sit we on this green turf, 'twill not be long
> Ere turf will hide my dust along with thine."

This remorseless machinery of nature, established religion ascribed to the all-creating omnipotent Allah. Omar does not literally deny the existence of such a potent personality (he has too much literary tact for that), but presses the dogma to logical moral absurdity. As we have seen, he tells the Mollahs that their Allah determined all the sins they complain of. Who is to blame? "Who mixed my clay? Not I. Who wove my web of silk and dross? In sooth not I." But Omar does not, to use a phrase of his own, "misread one for two." Whinfield,—whose translations I am mainly following because they are more literal than Fitzgerald's,—understands that phrase as mere assent to the Moslem Unitarianism. But I think that quite too commonplace for Omar, and believe it to be dualistic. Amid the elemental universe Omar finds signs of the divine Love. He finds the rose, and the

rosy maiden; he finds the heart of Jesus, whom he tenderly loves. Isa (Jesus), who is said to have raised the dead, is his emblem of the warm breath of Spring under which the earth revives. Whereon he has a quatrain curiously comparable with the feeling of Faust when in his cloister he hears the song "Christ is risen!"

> "Now springtide showers plenty on the land,
> And quickened hearts go forth, a joyous hand,
> For Isa's breath wakes the dead earth to life,
> And trees gleam white with flowers, like Moses' hand."

That is, Moses's hand, which Jahve made leprous, white as snow (Exodus iv, 6), but in which Omar sees blossoming of the white-thorn. Sitting under his own vine, he sees a hand of love offering its juice which can

> "with logic absolute
> The two-and-seventy sects confute."

Wherever he feels the presence of Love, there he recognises a supreme heart like that beating in his own breast.

> "O Soul, when on the Loved One's sweets you feed,
> You lose yourself, yet find yourself indeed."

CHANDRA, THE PESSIMIST.

When Buddha, the Blessed One, the great sage of the Sakya tribe, was still walking on earth, the news spread over all the valley of the holy Ganga, and every man greeted his friend joyfully, and said: "Hast thou heard the good tidings that the Holy One, the Perfect One, has appeared in the flesh and is walking among us? I have seen him and have taken refuge in his doctrine; go thou also and see him in his glory. His countenance is beautiful like the rising sun; he is tall and strong like the young lion who has left his den; and when he openeth his mouth to preach, his words are like music, and all those who listen to his sermon, believe in him. The kings of Magadha, of Kosola, and of many other countries have heard his voice, have received him, and confess themselves his disciples. And the Blessed Buddha teaches that life is full of suffering, and he points out to his disciples that we can escape the evils of existence only by walking in the noble path of righteousness."

And there was an old Brahman by name Sudatta, who had devoted his life to the collecting of herbs and the using of them as medicines for the sick. His life had been full of toil and poverty and his joy was to see the alleviation of suffering in his patients. On hearing the tidings, he said: "I will go and see the Blessed One face to face," and he went to Rajagriha where at the time Buddha was preaching.

While travelling on the road, a young man joined him, who had the same longing to see the Blessed One. It was Chandra of Agra, a gambler. And Chandra said: "Deep is the wisdom of the Perfect One. He teaches that existence is full of suffering, nay, that it is suffering itself; and my experience confirms the doctrine. Pessimism is indeed the true theory of life. The world is like a lottery in which there are few true prizes and innumerable blanks. We can see at once how true it is that life is not worth living by supposing a wealthy man buying all the chances in a lottery in order to make sure of winning all the prizes. He would certainly be a loser. Life is bankrupt throughout; it is like a business-enterprise which does not pay its expenses."

"My friend," said the Brahman, "I perceive you are a man of experience. Am I right in assuming that being a gambler you had for a time an easy life until you met another gambler better versed in the tricks than yourself who cheated you out of all your possessions?"

"Indeed sir," said the gambler, "that is my case exactly; and now I travel to the Blessed One who has recognised the great truth that life is like a lost game in which the prizes are only baits for the giddy. When I met a man unacquainted with gambling I always made him win in the beginning, to make him bold. I, too, was successful for a time in the game of life, but now I know that those who win at first are going to lose more in the end than those who are frightened away by losing their first stake."

Turning to the Brahman bent down with old age and care, he continued: "The whiteness of your beard and the wrinkles in your face indicate that you, too, have found the sweets of life bitter. I suppose you are not less pessimistic than myself."

A beam of sunshine appeared in the Brahman's eyes and his gait became erect like that of a king. "No sir," he replied, "I have no experiences like yours. I tasted the sweets of life when I was young, many, many years ago. I have sported in the fields with my playmates. I have loved and was beloved, but I loved with a pure heart and there was no bitterness in the sweets which I tasted. My experience came when I saw the sufferings of life; I was married and in the midst of happiness, but my wife fell sick and died, and the babe that was dearer to me than my own life died also. Oh! how I complained of man's fate who sins in his ignorance and is unable to escape from the curses that follow his errors! That was a bitter experience. So far I had been living as in dreams, enjoying myself thoughtless as the birds of the air or the deer upon the plain. But when misfortune had awakened me to the full consciousness of the conditions of existence my eyes were opened and I saw suffering among my fellow beings which I had never seen before. Thinking to myself that much misery could be removed, I began to study the causes of disease and to seek for medicines by which it might

be cured or at least its pains assuaged. O, the misery I have seen in the cottages of my native town will never be effaced from my memory. The world is full of sorrow and there is no life without pain. I have been sad at heart ever since, but when I heard that Buddha was come into the world, and that he teaches us how to escape from suffering, I rejoiced; and I became conscious of the happiness in which I lived. I know now that the bitterness of life is sweet to him whose soul has found rest in Nirvâna. I am happy because I am able to alleviate some of the bodily ailments of my brothers and sisters and I now go to the Lord, the holy teacher of mankind, to find a medicine for the maladies of their minds."

When the two men came to the Vihâra at Rajagriha, they approached the Blessed Buddha with clasped hands, saying: "Receive us, O Lord, among thy disciples; permit us to be hearers of thy doctrines; and let us take refuge in the Buddha, the truth, and the community of Buddha's followers." He who reads the secret thoughts of men's minds, addressed Chandra the gambler asking him: "Knowest thou, O Chandra, the doctrine of the Blessed One?"

Chandra said: "I do. The Blessed One teaches that life is misery." And the Lord replied: "Indeed Buddha maintains that life is misery, but he has come into the world to point out the way of salvation. His aim is to teach men how to rescue themselves from misery. If thou art anxious for delivery from evil, enter the path with a resolute mind, surrender selfishness, practice self-discipline, and work out thy salvation with diligence."

Said the gambler: "I came to the Blessed One to find peace, not to undertake work." Said the Blessed One: "Only by energetic work is peace to be found; death can be conquered only by the resignation of self, and only by strenuous effort is eternal bliss attained. Thou regardest the world as evil because he who deceives will eventually be ruined by his own devices. The happiness that thou seekest is the pleasure of sin without sin's evil consequences. Men who have not observed proper discipline, and have not gained treasure in their youth, lie sighing for the past. There is evil, but the evil of which thou complainest is but the justice of the law of Karma. What a man has sown that shall he also reap."

Then the Blessed One turned to the Brahman and continued: "Verily, thou understandest the doctrines of Buddha better than thy fellow traveller. He who makes the distress of others his own, quickly understands the illusion of self. He is like the lotus flower that grows in the water, yet does the water not wet its petals. The pleasures of this world allure him not and he will have no cause for regret. Thou art walking in the noble path of righteousness and thou delightest in the purity of thy work. If thou wishest to cure the diseases of the heart as thou understandest how to heal the sores of the body, let people see the fruits that grow from the seeds of selfishness. When they but know the bliss of a right mind, they will soon enter the path, and reach that state of steadiness and tranquillity in which they are above pleasure and pain, above the petty petulance of worldly desires, above sin and temptation. Go, then, back to your home and announce to your friends who are subject to suffering, that he whose mind has been freed from the illusions of sinful desire, has overcome the miseries of life. Spread goodness in words and deeds everywhere. In a spirit of universal kindness be ready to serve others with help and instruction; live happily then among the ailing; among men who are greedy, remain free from greed; among men who hate, dwell free from hatred; and those who witness the blessing of a holy life will follow you in the path of deliverance."

The eyes of Chandra the gambler were opened and his pessimism melted away in the sun of Buddha's doctrines. "O Lord," said he, "I long for that higher life to which the noble path of righteousness leads. Wilt thou persuade the Brahman, my fellow-traveller, to take me to his home where I am willing to enter his service so that I may learn from him and attain to the same bliss."

The Blessed One said: "Let Sudatta, the Brahman, do as he sees fit"; and Sudatta, the Brahman, was willing to receive Chandra in his house as a helpmate in his work. And Buddha said: "Let evil deeds be covered by good deeds. He who formerly was reckless and afterwards becomes sober, will brighten up the world like the moon when freed from clouds."

EDITOR.

SCIENCE AND PROGRESS.

THE AGE OF STRIKES.

THE plan of settling disputes by stepping aside and waiting till your employers or employees come to their senses, is a lesser evil, as clearly as the dignified silence of resentment is an improvement on violent altercations. There was a time when reforms had to be effected in a different manner. The companions of Spartacus had to fight fifteen murderous battles for the privilege of quitting their jobs. The malcontents of the Peasant's War had to *strike* with iron clubs. With all its incidental abuses, the new plan is the best. Retreat to a platform of neutrality is better than flight to the shades of an unknown world. A thirty years' absence from church is better than a Thirty Years' War. The spread of agnosticism and indifferentism, so called, means simply that millions of our contemporaries have decided to step aside and wait till their spiritual task-masters can agree on a less unbelievable doctrine.

VAIN APPEALS.

Professor Loomis of Kansas City, however, denounces strikes—railroad strikes, especially, and recommends appeals to the humanity and self-respect of railway companies. Professor Loomis is said to be an agnostic, and ought to be able to appreciate the fatuity of appealing to things that may have no existence.

FALLEN STARS.

During the last six months the distinguished arrivals in the realms of Pluto must have resembled a shower of shooting stars: Tyndall, Baker Pasha, Childs, Joseph Keppler, Kossuth, Vance, Dr. Brown Sequard, General Trumbull. with a host of luminaries of lesser magnitude. The mystic palingenesis of Angelus Silesius makes such periods coincide with the birth of future celebrities, and according to that theory the third or fourth decade of the twentieth century ought to rival the Napoleonic era.

A CONSISTENT LIFE.

Louis Kossuth has been called a "Protestant," but his claims to that distinction were founded mainly on the emphasis of his political protests. In metaphysics he was a free inquirer, not to say a freethinker, and a good deal of a monist, to judge from his often expressed aversion to the crass dualism of the monastic era And, moreover, his philosophy was old-age-proof. During the last two days of his life his conversation appears to have been wholly limited to secular topics, though after his partial recovery from a severe syncope he entertained no doubt that his respite was measured by hours. "Poor Bathyani,—I have been lucky, after all," he whispered, when his soul had already entered the penumbra of death.

COLONIAL BIGOTS.

The superior liberalism of new colonies is a rule with occasional exceptions. Exclusively pastoral or agricultural settlements often attract an *exquisitum* of rustic bigots, and a representative Boer of the Transvaal now proposes to abate the locust-plague by the persecution of heretics. "Without doubt locusts and other plagues," he says, "have been sent as a punishment, not only for flagrant desecration of the Sabbath, but for us allowing blasphemous heretics, like the Catholics and the Jews, to practise their diabolical rites in our midst."

TURKISH JUSTICE.

A Turkish judge of Kis-Sereth, on the lower Pruth, recently persuaded his neighbors not to mob a Russian deserter who had taken refuge with a charitable Mussulman and then robbed his benefactor. At the kadi's advice, the gentleman who could not behave himself among strangers, was put in a boat and ferried back to his knout-armed friends on the other side of the river.

"SANITARY DESPOTISM."

The despotism of Health Commissioner Emery of Brooklyn would be a blessing in disguise if the sanitary tendency of his regulations could be more clearly established. He has been accused of attempting to bully persons who refused to be vaccinated and confining them to their rooms till they agreed to comply with his orders. His rights in such cases would be those of every quarantine commissioner; but the trouble is that the expediency of Dr. Jenner's plan is still subject to grave doubts. A large number of eminent pathologists, both of Europe and America, maintain that the benefits of vaccination are outweighed by its mischievous tendencies, and that the abatement of small-pox is mainly due to dietetic reforms, cleanliness, and the more thorough ventilation of our dwelling-houses.

LONGEVITY RECEIPTS.

An English cynic predicts that the continued prodigality of our Pension Bureau will evolve an enormous crop of centenarians, and quotes the precedent of Driffield Parish, "where sixteen persons, in receipt of outdoor charity, can boast a combined age of 1,280 years," an average of eighty for each pensioner. A sinecure seems often, indeed, almost to realise Ponce de Leon's ideal. The French government hardly expected to run any risks in granting the artist-scholar Waldeck a pension of three thousand francs, after the celebration of his seventy-eighth birthday, but from that day the health of the venerable savant improved, and the annuity had to be paid for twenty-three years.

ALCOHOL AND ANARCHY.

A week ago the American press commented on the experiments of an Old World naturalist who fuddled bees with alcohol and claims to have noticed a consequent tendency to shiftlessness, theft, and insurrection. The alcoholised insects ceased to work, and not only plundered the stores of their neighbors, but refused to recognise the prerogatives of their queen. As a compliment to temperance the story would be worth believing, if it were not for the implied libel on political independence. An ardent love of distilled liquors is not un consistent with an abject submission to the powers that be. The disciplinarians of the mediæval convents knew what they were about when they stinted their monks in meat, but indulged them in beer and wine. The all-round rebel Shelley was a total abstainer, while the brandy fuddled Russian boors are models of subordination.

TRANSFIGURED TRAMPS.

"Don't hope to attract followers by the logic of your arguments," says the disappointed philosopher Schopenhauer, "but

"Gieb ihnen zu fressen und zu saufen,
Sie kommen in Schaaren dir zugelaufen."

Yes—or else supply them with a decent pretext for enjoying the luxury of a good, long tramp. It is quite probable that we are all descended from more or less nomadic ancestors, and the chance to achieve glory by locomotion has a charm not easy to resist. Hence the popularity of religious pilgrimages and the success of Tramp-generalissimo Coxey.

FELIX L. OSWALD.

THE WAY OUT.

BY HYLAND C. KIRK.

In dreams I saw a little bat
Within a cave, this way and that
Go flying, as if seeking way
To make his exit to the day.

Anon his winglets weary grew,
Tired of flitting, heart-sick, too,
And, perched upon a friendly stone,
He seemed to say in plaintive tone:

"There's no escaping from this cave;
It is, alas, a hopeless grave.
I've tried the walls, the floor, the dome,
And all in vain, I'm in my tomb."

Surprised to hear this winged mole
Speak thus, when yawned an ample hole,
Permitting egress, had he tried
To pass out at the open side,

I waking mused: and is it man,
This bat, too blind the truth to scan?
Too blind to see his own way clear
And that the light is now and here?

BOOK REVIEWS.

VILLAGE SERMONS PREACHED AT WHATLEY. By the late *R. W. Church*, M. A., D.C.L, sometime Dean of St. Paul, Rector of Whatley, Fellow of Oriel College. London and New York: Macmillan & Co., 1894. Pp 356; price, $1.75.

It is almost unnecessary to state that a collection of sermons from the well-known pen of the late Dean Church will be widely read and appreciated by all. This writer is perhaps best known

to the general reader by his short historical books and essays, although these by no means constitute the greater part of his work. The present sermons are models of simplicity. This, with their brevity and homely forcefulness of style, well justifies their title, "Village Sermons." It is understood that they represent the ultra-Christian standpoint, but in spirit they are truly pan-religious. Their titles are as follows: The Advent of Christ, No Continuing City Here, The Incarnation of Our Lord, The Wonder of the Incarnation, The Calling of the Gentiles, The Use of Lent, The Will of God Our Sanctification, Careless Hearing and Its Fruits, The Barren Fig Tree, Christ's Love to Mankind, Christ's Love to the Multitudes, Christ's Love to His Enemies, The Last Evening, The Return to Christ's Love, The Words From the Cross, God's Great Day, Continual Improvement, Profession Without Practice, Wasting Away of Life, Heaven and Purity, Man at God's Right Hand, The Promise of the Spirit, The Holy Trinity, Knowledge of God by Prayer, Holy Baptism, The Present Time and the End, Holy Communion, Causing Others to Sin, Pleasing Not Ourselves but Others, Common Prayer, The Love of Christ, The Truth and Justice of God, Grieving the Holy Spirit, What Will Be Wished for at Death, The Meaning of the World, The Use of Sunday, All Saints' Day.

Edward Livingston Youmans. Interpreter of Science for the People: A Sketch of his Life. By *John Fiske*. New York: D. Appleton & Co. 1894.

In a letter, dedicating this work to Herbert Spencer, Mr. John Fiske writes: "Our friend expressed a wish that if his biography were to be written I should be the one to do it." And certainly, from his long intimate friendship with Youmans, Mr. Fiske was the most competent person to discharge this task, as the execution of the present volume testifies. Not only is the book a biography of E. L. Youmans, but it is a history of the movement by which the great results of modern European research were first popularised and made a part of the intellectual life of our country. Mr. Youmans was one of the first pioneers in this field, in which there are now so many able workers. It was he who conceived the idea of the International Scientific Series, and established it after much hard and unselfish labor, and it was he who bore the main brunt of the battle in this country when the theory of evolution first came into conflict with the prejudices of religious tradition. A great part of Mr. Youmans's correspondence with Herbert Spencer, who is in great measure indebted to him for the success of his works in this country, is here printed, and also numerous letters from Tyndall, Huxley, and other prominent Englishmen are reproduced. Altogether Mr. Fiske has compiled an attractive volume, and given a very creditable record of an important period in the history of American education. The work contains two portraits of Youmans, with reprints of the following select writings: "Mental Discipline in Education," "On the Scientific Study of Human Nature," "What We Mean by Science," "Herbert Spencer and the Doctrine of Evolution," "The Charges Against the Popular Science Monthly," "Concerning the Suppressed Book." The volume also contains an Appendix with Youmans's ancestry and a list of his works. The book is elegantly got up. μκρκ.

Reformed Judaism and its Pioneers. A Contribution to Its History. By *Dr. Emanuel Schreiber.* Dr. Schreiber is Rabbi of the Congregation of Emanu El, Spokane, Washington. The purpose of the volume is the setting aright of the history of Reform-Judaism which from Dr. Schreiber's accounts seems to have suffered much at the hands of the historians, its special misrepresentation having been accomplished in the eleventh volume of Graetz's "History of the Jews." This is not the author's first attempt in this field, as he has impugned before in a German work the credibility of this part of Graetz's history. The history of the work is told in the Preface. It was not accepted by the Jewish Publication Society of America, and many obstacles seem to have been put in the way of its publication. The author's account of the fortunes of the book is not unmingled with invective. The exposition is made in the shape of biographies of the prominent Jewish reformers, each of which takes up a chapter. They are: Moses Mendelssohn, David Friedlaender, Israel Jacobsohn, Aron Chorin, Gotthold Salomon, Abraham Kohn, Samuel Holdheim, Leopold Loew, and Abraham Geiger. A commendable feature of the book is that it is thoroughly indexed, but it is not wholly free from misprints. It is too bad, after all its misfortunes, that it did not find a better publisher. (Spokane, Washington: Spokane Printing Company. 1892. Pp. 400.)

Progressive Eclecticism. A Brief Outline of a System of Culture Based on Freedom of Selection and the Natural Development of Character, Guided by Science. By *D. G. Crow.* The dedication is to the "children of the world." The author finds the true norm of conduct in eclecticism, a principle which he sees at the bottom of all modern philosophy and of all modern ethical movements, including "that curious combination called the Religion of Science." "Progressive Eclecticism teaches a faith in nature, in science, and in man's province and capacity to work out his own salvation." The author says the earnest of the establishment of his idea is found in the Parliament of Religions. He devotes a section to the natural development of character, and gives a catechetical résumé of the teachings of the Eclectic system, including hints for the organisation of eclectic assemblies. For the particulars of such organisations, the reader may apply to the author at Waco, Texas. (Waco, Texas: Brooks and Wallace. 1894. Pp. 60.)

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Yours very truly,

Geo. J. Romanes.

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PROF. GEORGE JOHN ROMANES.

(Died May 23, 1894.)

The brief cable-announcement of Prof. George John Romanes's death came so unexpectedly that I could not bring myself to believe it, and have hesitated to mention it in the columns of *The Open Court*, in the hope that there might be some mistake about it. But alas! the sad news has been verified. He died, three days after his forty-sixth birthday, from a stroke of apoplexy, after having just attended to some important biological experiments.

Professor Romanes has been a sufferer from nervous prostration for several years; and a hemorrhage of the retina, which was observed some two years ago, was an ominous symptom, warning him not to make light of his disease. However, when two years ago my brother-in-law, Herman Hegeler, and myself, on our trip to Europe, visited him at his home in Oxford, we found him so much recovered that he did not give in the least the impression of an invalid. His strict diet alone reminded us of his ailment, which he seemed to have overcome completely.

Professor Romanes was tall and of aristocratic appearance, gentlemanly and amiable, and a most cordial host. His beautiful home, which is one of the oldest structures, modernised, of old England; his unique study with its antique woodwork and visible rafters in the ceiling, giving to the room an artistic air; his elegantly written manuscripts, well protected against fire in a small safe; a rich store of letters from Charles Darwin, bound together in a thick volume, and highly treasured because they were all written *manu propria* by the great master; the garden and court-yard behind high walls such as exist only in the oldest towns of Europe; the cages of guinea pigs in a corner of the court-yard for experiments to verify or refute his famous colleague, Weismann;—all these surroundings seemed part of the man, for he had impressed his spirit upon them and they reflected his personality. But more fascinating than these externalities was his conversation, in which he showed himself not only a progressive but also a conservative man. Unprejudiced and impartial, he was never quick to condemn antagonistic views, but always expressed himself guardedly. He spoke highly of Weismann, his scientific antagonist, and recognised the importance of the issues he had raised. Nothing sets the fairness of Professor Romanes in a better light than the fact that Weismann was invited to deliver the third Romanes lecture at Oxford, where he was expected to use the occasion for presenting his own views. With all his cosmopolitan breadth, and although he was born on American soil, in Kingston, Canada, Professor Romanes was a thorough Englishman, believing in English institutions and even excusing their most apparent shortcomings as being adapted to the character of the nation. In religious questions he was liberal, indeed extremely liberal, and I dare say that he acceded to all the main propositions of the monism of *The Open Court*.[1] Yet he prized the Anglican Church and regarded its symbolism as highly appropriate and expressive. He loved poetry, and he wrote poetry himself. "You may be astonished at the religious tone of my poetry," he said, in handing me a volume of his poems, "but you will understand how I mean it."

Professor Romanes's poems have not been published. They were printed for private circulation only, but are no secret among his friends.

As our time, while visiting Professor Romanes at Oxford, was very limited, we could stay only a few hours. We returned on the evening of the same day to London, and he courteously accompanied us to the station. There we parted, and I did not anticipate that it would be forever.

Mr. Hegeler and myself had repeated communications with Professor Romanes anent the publication of the second volume of his "Darwin and After Darwin," which was delayed on account of the recurrence of his old trouble. In a letter of December 10, 1892, he wrote from Madeira, explaining the delay, saying: "I am condemned to imprisonment here *without* hard labor, and, although still far from well, am getting

[1] To exemplify our agreements and disagreements with Professor Romanes we may state that in our conception of evolution we were unanimous. With eference to the editorial reply in *The Monist* to Prof. F. Max Müller, who in his article "On Thought and Language" also claimed to be an evolutionist, Professor Romanes wrote in appreciative terms, adding: "it exactly hits the nail on the head." Professor Romanes also held the same theory as we concerning the relation between feeling and motion, consciousness and bodily organisation. The sole point on which there seemed to be a disagreement was a certain agnostic reservation of his concerning a possible consciousness in the cosmos as a whole. For d tails as to this last issue see the article "Panpsychism and Panbiotism," Part III, *The Monist*, Vol. III, No. 2.

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somewhat better. But it will be some time yet before I can set to work on finishing Part II."

In May, 1893, he sent word that he was ready to go to press, but that he saw fit to change the plan of his work. He wrote: "My 'Examination of Weismannism' is already in type, and in view of his great modifications in his general system presented by his recently published work on 'Germ-Plasm,' I deem it expedient to publish this examination forthwith as a separate little book of about two hundred pages. My Part II will thus be rendered less bulky in size, and therefore run more uniformly with Part I."

We published four articles of his on Weismannism in Nos. 306, 313, 316, and 317 of *The Open Court*, and soon afterwards brought out his "Examination of Weismannism."[1] The second part of his "Darwin and After Darwin" was to appear in November, 1893, but before Professor Romanes could give his attention to a final revision of his book his health failed again; death overtook him suddenly, and his work remained uncompleted.

The picture which we add to the present issue is perhaps better for not having been taken at a special sitting in a photographer's studio, but in the open air without preparation. It shows him as he bore himself when at leisure, and resembles him much as he still lives in my memory. Another likeness of his, which is a reduced reproduction of the picture which was added about two and one half years ago to the National Portrait Gallery of the British Museum, will be published in the current number of *The Monist*, together with one of Professor Romanes's poems. We conclude these memorial reminiscences of the great scientist with two stanzas of his, addressed to Charles Darwin, which now vividly express the feelings of his own friends towards himself:

"It is a cadence sweet to me,
With sweetness that I cannot tell;
And notes of awful memory
Are roused, like music, by its spell:
But have these notes a wider range
Than beating thus upon my heart?
Do these great chords of solemn change
Appeal to me as to a part
Of all the audience of men,
Beneath the dome of many skies,
Who bow the head in worship when
They hear a name that never dies?

If it were true, as it is said,
That immortality is now,
Why should I mourn thee, mighty dead,
For who is deathless more than thou?
Or why, since thou art thus so great,
Must I make effort to restrain
The tears that swell, and sighs that wait
For tears to flow and swell again?
O cease! The change is everywhere!
Do I not know that vacant place?
A silence of the grave is there;
And we have spoken, face to face!"

[1] Professor Romanes's first contributions to *The Open Court* were the articles on "The Psychic Life of Micro-Organisms," which appeared in 1889, Vol. III, of *The Open Court*.

"THE OPPRESSION OF WOMEN."

BY ERROL LINCOLN.

The essay of Prof. E. D. Cope under this heading in No. 354 of *The Open Court*, displays a fund of sophistry and inconsequential remark, that ought to be, but which, so far as the matters agitated are concerned, is unhappily *not*, distinguished.

"All government rests on force." Men have more force than women. Hence women are not fit to participate in government. Such is the argument actual and implied of Professor Cope. By *force* Professor Cope must mean physical prowess, for as soon as he shall admit mental efficacy or moral influence into the category of force, his argument loses every appearance of cogency. Taking him to mean as the pretensions of his argument require, there is but one thing to be said, viz.: That his argument is based upon a proposition that becomes absurd just as soon as its claims are examined. Government does *not* rest on physical prowess. There is not a government on earth, nor has there ever been one, that could exist in virtue of its mere physical prowess, however preponderant. Had physical prowess the virtue thus claimed for it, how would ever weak, puny man have made his way to the mastery of his fellow beasts. The Oriental despot sends a man to the block out of mere caprice, and all his subjects stand trembling around. Instructed by Professor Cope we would look to see a giant with physical prowess able to compel these results. Oh! Professor Cope would say. This despot can command the needful physical power. But how does he do this? Is it by his own physical power? Not at all. There is something else that is not physical power that commands, that *enforces*. There are powers behind the throne of physical power greater than physical power itself. This little, scrawny, harem-enervated bantling of a despot *governs*, *not* by physical prowess, but by mental and moral forces into the complexity of which he has become so insinuated that his *choice* has become an important factor in the current events.

But enough and more than enough words have been spent over this contemptible argument that women are fitly to be and to remain subordinate in matters of government because men can *whip* women.

The question is primarily one of *righteousness*. The right to compel obedience to the laws comes from somewhere. Those who exercise this compulsion must show good title to their power, or confess themselves mere usurpers, deserving hatred for their unauthorized interference. Some of them try to derive their title from God, and with some this pretense passes. But the common sense of mankind is now pretty much agreed that all governmental power comes from the delegation thereof by some part or the whole of those who are to be governed. Those who would

allow the delegation of a part of the governed to be a good authority for the government of the whole, have as yet been wholly unable to show any reason that is even respectable, for drawing the line of division where they do, and simple sense and logical consistency indicate that there is *no* reason or justice in denying to any one that is *sui juris*, his or her equal right to be consulted when constitutions of government have been or are about to be set up that he or she will be expected to respect.

When women ask for suffrage as a privilege to be granted out of the graciousness of those who have "hogged" this right all to themselves and their own sex, they do society a wrong,—suffrage is theirs by natural right, and they should demand it as such. It is simply distressing to see the mean mental and moral contortions, the silly and despicable subterfuges, that men, and particularly the women, will resort to, to evade the force of this sun-clear principle. The usual trick is to bring forward some consideration that sounds in expediency. Common suffrage for all would induce vast changes, it is said. So it would, and that is one of the glories of it. And, they go on, we men and we women would naturally be led to ways of thinking and acting that we are not used to, and home would be home no longer, for we would get to talking politics, and nice ladies would get to drinking beer and smoking cigars and swearing and fighting, and so on and so forth, through all the gamut of absurdities.

But nothing of another character seems to occur to these cavillers. They cannot foresee the enlarged lives, both mental and moral, that this change might bring in its train to both men and women. They cannot prognosticate the on-coming of gentler, purer, and more refined manners and customs in politics. They cannot forecast, much less estimate, the good results that ensue from that charity of feeling that is always consequent on mixing with one's fellows, and contending with them candidly and respectfully over matters of real consequence.

THE YOUTHFUL REPORTER.

BY PROF. E. D. COPE.

The youthful newspaper reporter is responsible for a good deal of injury to public ethics in this country. If the editorial eye could revise his work more thoroughly, and use the blue pencil in certain cases more frequently, the essentials of his work might be retained, and the unnecessary injuries reduced to a minimum.

How frequently, for instance, do we find news items which relate to the commission of crime, which close with the remark that "lynching was threatened," or, "the criminal, if caught, will be lynched." This assertion is entirely gratuitous, as threats of revenge for crimes committed may be always expected from somebody, just as profanity is a usual adjunct of quarrels. But the press does not generally find it necessary to report the latter fact. Nor is it certain that the criminal will be lynched if caught, because somebody threatens it. This kind of popularisation of lynching has, however, gone on so long that a sentiment has apparently been generated in some quarters, that there is something wrong with that community in which lynching is not at least threatened. This sentiment places in the front rank of progress the communities where lynching is practised, whereas they are sunk in a stage of barbarism far removed from a true civilisation.

Much of the spread-eagleism of the press is due to the youthful reporter. The repetition of the assertion that the United States is the "greatest country in the world," does not prove conclusively that such is the case, to thinking people either in this country or out of it! It is probable that in some one or two respects each of the civilised nations is the greatest in the world, and a reasonable acquaintance with statistics would settle the question for the time being at least. A little knowledge of our real status should relieve us of oversensitiveness to either the praise or blame of foreigners, and furnish us with as much pride as we are entitled to. But what are we to think of the Parisian correspondent of one of our great dailies, who wrote of the presentation of our representative at the Elysée for the first time as ambassador? Because a detachment of gaily caparisoned cavalrymen rode to his hotel to escort him to the palace, the callow correspondent declared that "the American heart swelled with pride," and more like rubbish; and the great daily published it. Query: Was the correspondent an American or a Frenchman? Perhaps it was like the French reporter's commentary on an address made by an American before one of the congresses at the Exposition of 1878, which declared that at its close the speaker, "M. ——, took his seat with great satisfaction." Query: whose satisfaction?

On the woman question the immaturity of the average reportorial mind is often apparent. Generally of bohemian life, his preference for women of that type is conspicuous. If she gets into trouble through her misdeeds, she has his sympathy, and in this he is a good second to the women who delight to send bouquets to incarcerated criminals. Who ever heard of a woman who eloped who was not "pretty," according to the reporter? Who ever heard of an ugly female defendant or plaintiff in a divorce suit? He loves the monstrous and exceptional in woman's ways, and often depicts these as though worthy of imitation. While it is doubtless his duty to record the events of the day, he need not approve what women of custom-

ary refinement never do. In lauding women who enter into competition with men, he displays the usual preference of the hobbledehoy for the hoyden.

These remarks are a not unconscious tribute to the power of the newspaper press. Newspapers are the daily mental food of this nation, and there rests a heavy responsibility on those who supply it. They can create popular opinion as well as follow it. Hence the tendencies of the young and inexperienced mind should not determine the character of the newspaper. The senior editor, if there be any, should give it its tone, while he uses the young and energetic men who can collect news where older ones would fail.

WHAT IS MAN WORTH LIVING FOR?[1]

THE ANSWER OF HINDUISM.

Extract of an Address to the Nagercoil Club by its President,

M. RATNASWAMI AIYER, B. A.

Poets and fable-writers tell us of a time when everything inanimate as well as animate had a tongue, or, at any rate, spoke somehow. In that Elysian age the fingers of the human hand possessed powers of elocution too. Once upon a time they assembled in solemn conclave and held a pretty warm debate on the rather delicate question, which of them was the greatest? The thumb, as the first in position and foremost in order, therefore, to lead, started the discussion, and, in a speech by no means as diminutive as the orator, claimed for himself the front rank of precedence. He argued that he held his own against all the other four members of the fraternity projecting from the same palm of the hand, put together. He represented one-half the space and the direction making up the whole while folding or otherwise using the hand, and acted as, though single, yet the essential complement and counterpart of the other fingers, which collectively represented only the other half of the circuit. In these circumstances *he* was the greatest, exclaimed this proud dwarf, winding up his arguments in the pithy remark, "I am quite half against half," and evidently looking down on his comrades, who, all to a man, had to combine and make up the other half. "Wait a bit, my Lilliputian brother!" cried out the next gentleman, the forefinger, and, starting up impatiently, continued: "Am I not the guide, the messenger, the friend, who points to everybody the path and leads all on? And should not gratitude, shown even to my inanimate symbol—the finger-post—be all the more shown to *me*, its more useful animate prototype? Do you deny then to the leader and the guide, that is, myself, the title to be the greatest? Ingratitude cannot go further." "Brethren," spoke the middle finger, "why beat about the bush? The tallest is certainly the greatest, and I am therefore the greatest of all. I am the biggest man in the commonwealth. Measure my height, and satisfy yourselves. All who have eyes can see." It was now the turn of the next finger to speak. He briefly remarked: "None but myself is entitled to be decorated with ornaments. None else is so honored. I am the *ring-finger*, and, most adorned, shine the most. Who can lay higher claims to greatness?" The little finger, however, was not to be outdone and adopted a no less ingenious argument to proclaim *his* greatness. "Is not the man next or nearest the king the greatest? In all salutations (*kumbudus*), who stands first and foremost, and therefore nearest the king? Do I not lead, and are not all the rest my followers?[1] Though misnamed the least, I am the highest finger therefore." These angry words led to *strikes* (a modern remedy)—not to *blows*, however, for *that* requires *union* of all the fingers; but it was soon found that none of them was able to get on without the others. So, bitterly learning by experience the fact that each of them was a necessary factor for the happiness of one and all, and realising alike the folly of a contest for individual superiority and the wisdom of harmonious co-operation, they resolved to turn over a new leaf and worked, individually and collectively, for their general good on the best of terms.

Neither the ubiquitous shorthand reporter nor Edison's phonograph was there then, to record and hand down to us precisely the interesting speeches of these puny debaters, but the sentiments above expressed are repeated *mutatis mutandis* every day by other *dramatis personæ*, in the wide arena of the world's stage in precisely similar circumstances, so that this is a case of fiction being truer than history and illustrated off and on, over again, by the successive life-pictures, individual and collective, of every age and every society.

The story points to two morals, or rather establishes two truths. One is, that nothing in the universe exists for itself. The other is, that everything exists for the whole. It may be only a drop in the ocean, but every such drop must be there to make up the ocean. An atom is nowhere in the make of this glorious fabric, but it is yet a unit, a necessary factor in that whole or aggregate of atoms, which, without it, would, to that extent, be incomplete. The littleness and the greatness of the individual are thus forcibly brought home to us at the same time.

The struggle amongst interdependent, interadjusting, and interacting human units, for *being* in the first place and for *well-being* later, has gradually evolved higher and better regulative principles of conduct in life. The function that religion has performed in this

[1] The title and text of this article are exact reproductions of the author's copy.—Ed.

[1] This refers to the Hindu mode of greeting.

evolution has been the holding up of high ideals to follow. Ethical development has gone on hand in hand with, and with more or less dependence on, religion. Self-cultivation is most important for one's own as well as others' happiness. The Hindu religious ideal combines both *nishkama karmam* and *gnanam*, disinterested good action (i. e. without any desire for the fruit thereof) and wisdom. The Baghavatgîtâ preaches it, and in the very first chapter of Vilmiki's Brihatyoga Vasishtum is given the dictum of Augustya:

"In the same way as both the wings of a bird are necessary for its flight, *both nishkama karmam* and *gnanam* are necessary for *moksham*."

The practice of the duties of life, self culture as well as the service of the universe, so as to leave it better, in the sphere in which one can do so, than he found it, sums up then his mission on earth—and is a cosmopolitan religious law. It is because Hinduism preaches the high ideals I have referred to above, the law of universal love,—and, in addition, insists on no faith in any particular dogma, but only on merit and purity of heart for salvation, it can accommodate within its all-protecting shadow the whole human, or rather sentient, race. We welcome as Hindus any alien religionist actuated by such love; no external conversion is prescribed or necessary. We ought not to confound any forms, ceremonials, and social arrangements that have prevailed or do prevail, and which are readjusting themselves, with the gold that lies imbedded in the Vedas, Upanishads, and the Gîtâ and more enshrouded and obscured in other sacred writings. There is a good deal of furbishing of the gold necessary to remove many of the excrescences around it, and which gold is ever found pure and unmixed? Hinduism consists of a series of systems based on the psychological laws of development of the religious idea, and adapted therefore to the stages of growth of the intellect itself. From *tabula rasa*, through forms of symbology improperly called idolatry, next through forms of theism and monotheism, to the loftiest heights of *Advaitism* or *Universal Oneness*, is not one leap, but structure after structure, support after support, have to be set up and removed, as each arch from the concrete to the abstract is completed.

I shall not detain you with my views as to what formal improvements may now be introduced in these intermediate processes and ceremonials. The gold is unaffected and pure, and we have only to adapt to modern environments any formal arrangements in such matters. It is fortunate that the Hindu religion, both in ideal and practice, is sufficiently cosmopolitan and progressive to admit of all further improvements. It is no exclusive nor aggressive religion, nor intolerant, for it tolerates *even* intolerance. It is no religion named after any particular individual and binding its votaries to any particular dogma. It breathes universal love and toleration and says in effect with the English poet:

"For modes of faith let graceless zealots fight:
His must be right whose life is in the right."

Sri Krishna in the Baghavatgîtâ insists only on purity of heart and devotion, and as for form and deity, virtually says: "Worship how and whom you like." One pithy Sanskrit stanza repeated in our daily prayer *Sandyavandhanam* says, "As every drop of water that falls from the sky finds its way to the ocean, the worship dedicated to every deity finds its way to Kesava." I should be glad to see more of this spirit in gentlemen attached to what are now believed to be exclusive, aggressive, and intolerant religions. Every code of beliefs and forms has to undergo a purification, and the happy result will be the harmonious presentment of the best ideals in each, which, I think, are at bottom *one and the same*. In such a peaceful parliament of man consists the kingdom of heaven on earth—*Brimmanandam*. Not only *live*, but also *let live*. Know thyself, and merge thyself in the universal self.

This is easily said, but not so easily accomplished. If many a geological period is necessary for depositing one foot of coal, or lifting up one thin stratum of the earth, the great spiritual elevation and absorption—which is the goal towards which all mankind has to march—cannot be reached by immaturely developed spirits in the space of one generation or the period of one earth-life. Successive earth-lives, provided there is no fresh karma done calculated to retard or throw back the onward march, are the only means here, as in other mundane affairs, of reaching the ideal. Purity of thought, word, and deed, and self-culture, pave the way, till the mature individual is made in the final earth-life or generation into one with his general essence or *Paranatma*. The idea may sound strange to alien religionists, but psychic investigations are daily establishing the position even better than physical investigations have established the latest conclusions of geology and palæontology.

In conclusion let me remind you of the answer Hinduism has given to the query, What is man worth living for? *Nishkama karmam* of the right kind and culture in *gnanam*, so as to raise spiritual purity, to dispel *Avidhya* (ignorance) and to clear up your light and merge it in universal light—this is the end.

OMAR KHAYYÁM.

BY M. D. CONWAY.

III. HIS ROSES.

WHEN death was near, Omar Khayyám expressed a hope that he might be buried where the north wind might scatter rose-leaves on his grave. He was buried

at the corner of a monument of some grand personage of Naishapúr, and his friends planted rose-trees beside his grave. The grand personage is forgotten, his monument a ruin, but the roses still scatter their petals on the poet's grave, otherwise unmarked. No doubt they have been replanted there many a time. The Mohammedans never conceded any monument to the thinker who assailed their dogmas, but some hearts have cherished him, and maintained across the centuries the roses, his true monument, emblems of verses whose perfume is still upon the air. Edward Fitzgerald, beside whose Suffolk grave the roses from that grave in Naishapúr are growing, brought hither the poetic roses. And I will begin this final paper on Omar Khayyám by calling especial attention to one of these mystical roses—the finest of all—which was written neither by the Persian nor the English poet, but flowered out of their united souls.

In order to appreciate this miraculous verse, my reader must bear in mind what is said in the preceding paper of Omar's faith in the God of Love,—really the Ahuramazda of Zoroaster, the Father of Jesus,—as antagonistic to the phantasms of omnipotent inhumanity adored by Moslem and Pharisee. Omar's heart nestles close to his Beloved.

> "Can alien Pharisees thy sweetness tell
> Like us, thy intimates, who know thee well?
> Thou say'st, 'All sinners will I burn in hell?'
> Say that to strangers, we know thee too well!"

This dualism of Omar Khayyám is not a scientific generalisation; he offers no philosophical theorem about the universe. It is a religious and ethical dualism; he will not call good evil, nor evil good. If there be an author of earthly agonies he will not worship him; if for that he must burn in hell, then to hell he must go, but he will never kneel to the hell's founder. Bearing this dualism in mind, the reader will follow with more interest an investigation I have made, and here for the first time print, into the origin of the wonderful quatrain referred to above. I believe it to be unsurpassed in literature for heretical sublimity. In Fitzgerald's first translation of the "Rubayát" it is as follows:

> "Oh Thou who man of baser earth didst make,
> And e'en in Paradise devise the snake,
> For all the sin with which the face of man
> Is blackened, man's forgiveness give—and take!"

Since Fitzgerald's death, scholars have vainly searched the thousand quatrains ascribed to Omar Khayyám for this particular one. Fitzgerald's hundred and one translations represent, as he stated, a larger number of Omar's; but not even in detached lines of different quatrains can anything be found about Eden and the snake, nor man's offer of forgiveness to God. But there is one which, in literal translation, reads:

> "O Thou knower of the secret thoughts of every man, in time o need the helper of every man: O God, give me repentance, and accept the excuses I bring; Thou giver and receiver of man's excuses."

This is not addressed to Allah, not to the foreordainer of all evil, but to the good God, who sends his sunshine alike on just and unjust. But Fitzgerald did not realise this distinction, nor did he understand Omar's idea that divine Love inspires the repentance it accepts,—is "giver and receiver of man's excuses." He (Fitzgerald) interpreted the quatrain in the light of two others which are satires on the theological deity, Allah:

> "In my life's road thou hast laid the snare in many a place. Thou sayest, 'I slay thee,' if I make any misstep. The world is not free from thy command—not a tittle,—I can only do thy order and thou callest me a sinner!
>
> "What are we that he should speak evil of us, and make a hundred of each one of our faults? We are but his mirrors; and what He sees in us, and calls good and evil, sees He in Himself."

Here Omar does not literally say (had he so said he might have been slain) that the deity who decrees man's actions needs forgiveness for man's sins, but he says it implicitly; and here the English translator's logic came in, and recollections of his Bible: the "snare" he connects with the temptation of Eve, and the "receiver of man's excuses" suggested to him the innumerable sermons he had heard excusing the Creator for the evils of his creation. So although Omar did not precisely offer the Almighty, who chose to create a sinful world, man's forgiveness for his sins, that is what the Persian wrote across eight centuries on an English mind akin to his own, who took it to heart, and home to his own Christendom, with its fable of Eden. Thus we owe neither to the Oriental poet nor the English poet, but to a spiritual unity between them, availing itself of a felicitous mistranslation, that magnificent sentence on all the proud Omnipotents, "*Man's forgiveness give—and take!*"

An American artist, Vedder, illustrator of the "Rubayát" (Quatrains) has accompanied this particular one, which flowered of itself from the west-eastern genius of humanity, with a fine picture. Eve pedestalled on a coil of the splendid serpent, has a winged child clinging to her left knee, while her right hand receives the apple from the serpent's mouth. Just beneath, amid the flowers, a spider's web awaits its winged victims, as the snake is ensnaring the winged child,—Eve's posterity, aspiring from the coils of evil.

Outside his typical garden,—a little humanly-created world, made of cultured roses and cultured hearts,—Omar beholds a world mainly predatory.

> "Ah Love! could you and I with fate conspire
> To grasp this sorry scheme of things entire,
> Would we not shatter into bits—and then
> Remould it nearer to the heart's desire?
>
> "Could but some wingèd angel, ere too late,
> Arrest the yet unfolded roll of fate,
> And make the stern Recorder otherwise
> Enregister—or quite obliterate!"

These two, translations by Fitzgerald, have inspired the sympathetic art of Walter Crane. He has painted the stern Recorder, throned on stone, under a dome of stars, in an ancient temple. Beneath his feet an olive bough leans against an hour-glass,—Peace making a truce with Time. On the margin of Fate's scroll is written, *Mors et Mutabilitas.* Love, a beautiful youth, rainbow-winged, passionately grasps the half folded roll, and tries to seize the fatal recording pen. The hoary Recorder is as the stone he sits on, not to be pleaded with. Yet there are signs of crumbling about his old temple; Love has entered, hope is on his rainbow wings, lustrous from a sun rising in the distance. When Fate's temple crumbles, when he is no more worshipped, perhaps Humanity may follow Love, and make and record its own fates.

Omar Khayyám, at any rate, is not to be victimised by fate in his own spirit. There he is free. He sees that the worst evil of the deified phantasms is the time spent in praying to them, and the sacrifice of life to them. He fairly begins the work of seating man on the throne of providence.

> "Nay listen thou who, walking on life's way,
> Hast seen no love-lock of thy love's grow grey,—
> Listen, and love thy life, and let the Wheel
> Of heaven go spinning on its own wilful way."

As we are about to leave Omar Khayyám's garden, let us carry some hips of his roses to graft in our own gardens—choosing those that hold the finest beauty of character, and the heart of happiness, and the perfume of sweet influence. To attain perfection in the art of living a man must, according to Omar,—whom I must now condense and interpret:

1. Clear the mind of all fears or cares about anything after this life. The only life of which we can be certain is the life we have, and its roses wither under vain menaces about the future. As for the promises of future bliss, let us take the cash and let the credit go. Happiness in this world is as sweet as in any other. As for that distant paradise, we shall arrive there, or—we shall not. The only hell and heaven that really concern man are in himself,—hell is the sum of our pains, heaven the sum of our unfulfilled desires. They are projected by fear and hope into the future, but will be really dealt with when we grapple with the pains and attain the desires in their actual forms.

2. A wise man will not allow even to-morrow to encroach on to-day, and still less yesterday. Here I must quote:

> "My life lasts but a day or two, and fast
> Sweeps by, like torrent stream or desert blast;
> Howbeit, of two days I take no heed—
> The day to come, and that already past.
>
> "To-day is thine to spend, but not to-morrow,
> Counting on morrows breedeth bankrupt sorrow;
> O squander not this breath that heaven hath lent thee,
> Make not too sure another breath to borrow.
>
> "Sweet is the breath of spring to roses' face
> And thy sweet face adds charm to this fair place;
> To-day is sweet, but yesterday is sad;
> And sad all mention of its parted grace.
>
> "Now is the volume of my youth outworn,
> And all my springtide's blossoms rent and torn:
> Ah, bird of youth! I marked not how you came,
> Nor how you fled and left me thus forlorn.
>
> "Ah, why forecast to-morrow's hopes and fears!
> To-day at least is ours, O cavaliers!
> To-morrow we shall quit this inn and march
> With comrades who have marched seven thousand years."

Vain are all regrets about the past:

> "The moving Finger writes; and having writ,
> Moves on: nor all your Piety nor Wit
> Shall lure it back to cancel half a line,
> Nor all your tears wash out a word of it."

3. Let the pilgrim of life dismiss the notion that he can be aided by any supernatural powers outside of his supernatural self. The heavens are not affected by or concerned about anything he does or believes, nor can the universe be moved by his prayers or entreaties. The only thing we have to fear is not what may be done to us, but what we do, or fail to do, to and for ourselves and others. No mercy in the universe can undo what is done.

4. He will study the laws and forces surrounding him, but not waste his strength on illusory speculations of metaphysics, about the mystery of being, and so forth, which must be without any sure result, and fruitless for himself and others. Many good brains have been spent in building up creeds and systems which are now fables.

5. Still less will the wise man surrender himself to the illusions of worldly pomp and magnificence.

> "Yon palace whose roofs touch the empyreal blue,
> Where kings bowed down and rendered homage due,
> The ringdove is its only tenant now,
> And perched aloft she sings, 'Coo-coo, Coo-coo.'"

6. He must seek happiness, but not imagine that he can enjoy it in selfishness, or in isolation from others. "Devotees promise paradise to those who confer benefits on God. But share thy bread with the needy, guard thy tongue from speaking evil of any; and I venture, on my own account to promise thee a paradise." "The whole world will be populous with that action of thine which saves a heart from despair."

7. But it is no charity for a soul to give away its individual liberty. He who is himself unhappy cannot confer happiness. He is to live his own life, think his own thought. All is abandoned by him who truckles to authority, whether of the sultan or the multitude, accepting their creed or their uncongenial customs. Amid the rush and roar of elements he cannot control; amid the turmoil of fanaticisms, the vain ambitions of princes and states, bending the strength of nations on trifles; the wise man will find his unambitious sphere, his little oasis, his home, his bride, there think his thought, pursue the task he loves, and be content.

8. And there will he gather true friends. Omar holds friendship high. "A thousand chains broken by thee are less than by uprightness to have chained to thee the heart of a true friend."

> "To please the righteous, life itself I sell,
> And though they tread me down, never rebel:
> Ye say, 'Inform us what and where is hell!'
> Ill company will make this earth a hell."

9. He must be lord of his passions. Uncontrolled they will be crafty as foxes and cruel as tigers; they will bring desolation to his own heart and the hearts of others. There can be no peace in the house mastered by its servants.

Such is my interpretation of Omar Khayyám's religion, ethics, and philosophy of life. His greatness is not simply in his genius, but in its freedom. In this he surpasses the poets of our own time, who either accept "Mrs. Grundy" for a Muse, or else are crippled by their struggles under her vengeance. Half the poetic genius of our century has been, I believe, suppressed by legal or social censorship, or by their intimidation. Shakespeare was great not merely by reason of his intellect, but the stage was then free; and Goethe was great, largely because he was in a position to decree literary laws instead of accepting them from inferiors. Perfect intellectual and moral freedom would surely give us Shakespeares and Goethes again. Omar Khayyám's poetry, after eight centuries, is alive as if written to-day. Time is powerless over genius when developed by perfect freedom to its full fruitage.

FAITH IN ACTION.

BY LOUIS ALBERT LAMB.

No faith have I in candle, book, or bell;
Revere no canon and reject all creeds;
Require no priest to ease my spirit's needs,
And kneel at night no prayer or plaint to tell;

No God I see to judge me ill or well—
Desire no praise or pardon for my deeds,
Despise the virtue done for heavenly meeds
And hate the grace that only saves from hell!

But, in my soul secure, go I my way—
In its stern law I place abiding trust,
Assured that it will guide my life aright;
And, having done the day's relentless Must,
I boldly claim the boon of peace at night—
Too blest with happy toil to doubt or pray.

BOOK NOTICES.

We have received from Prof. James Gibson Hume, of the University of Toronto, a reprint of his address *Socialism* delivered before the Knox College Alumni Association at their Post-Graduate Session. Professor Hume emphasises the necessity of equilibrium between the two forces of individualism and socialism. The address embodies an appeal to "the best individuals to react upon "the organisation of society, to purify it, remodel it, make it a "true expression of what they see it ought to be." (Pages, 29.)—*The Function of Religion in Social Evolution*, by *M. Rangacharya*, is a serious, reverent, and profound study, originally written as a lecture for the Nagercoil Club of Madras, India. Mr. Rangacharya seems to be thoroughly conversant with the results of modern science and his interesting essay may be recommended to readers interested in the religious development of India, although the author's remarks refer to the whole field of comparative religion. (Pages, 58. Madras: Srinivasa, Varadachari, & Co.)—We beg also to acknowledge the receipt of a little pamphlet by Salvatore de Crescenzo, entitled *Saggio di una scala normale del pensiero astratto secondo la risultante di due fattori. Moduli secondo e terzo ossia di media e d'infima grandezza*, which is an attempt at the systematisation of abstract thought. The systematisation is effected by means of tables or models of "normal scales of abstract thought"; combinations of ideas, after the manner of resultants, being referred with numerical precision by means of this scheme to other ideas catalogued in the tables. The scale may be applied, the author contends, to the analysis of moral and speculative thought, serving both the purposes of criticism and invention. (Naples: Michele D'Auria, 386 Via Tribunali.)—In *The Derivation of the Pineal Eye*, reprinted from the *Anatomischer Anzeiger*, of Jena, Mr. William A. Locy, of Lake Forest, Illinois, claims to "have "been fortunate enough to trace the principal epiphysial out-"growth in Elasmobranchs to patches of sensory epithelium lo-"cated on the cephalic plate," where two pairs of accessory optic vesicles exist from which the pineal body is derived. (*Anatomischer Anzeigerr* Jena: G. Fischer.)

The Messrs. Houghton, Mifflin, & Co. of Boston publish in a very attractive form for the American Folk-Lore Society fifty *Folk Tales of Angola*, with the Ki-Mbundi texts, literal translation, Introduction, and Notes. The tales are collected and edited by Heli Chatelain. They will be unquestionably a valuable contribution to comparative folk-lore. The work contains a map of the Loanda district. (Pp. 315. Price $3.00.)

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LIBERAL RELIGIOUS AFFAIRS IN THE WEST.

BY CELIA PARKER WOOLLEY.

The progress of religious ideas in the West has always revealed its own distinctive aim and quality, showing the same general aspects that belong to our western civilisation at large, the same breadth of thought, the same practicality of purpose. Freedom and brotherly kindness have been its ruling characteristics, and events of recent years have but emphasised these principles anew and accelerated their growth. The old-time liberal sects, such as the Unitarian and the Universalist, have in general been established upon a broader basis of fellowship and work than older organisations in the East, still suffering from the binding influences of custom and tradition. The Independent churches in and west of the boundary line of Chicago far outnumber any such class of religious organisations on the other side. The Free Religious Association and the Ethical Culture movement, as exemplified in the work of its brilliant and able founder, Felix Adler, belong, it is true, to the East, but the West is growing into larger identification with the ethical movement, and the Free Religious Society, world-wide in the scope of its ideas and influence, has always been in its immediate atmosphere and a *personnel* Boston affair. Of late years the association has dwindled in numbers and strength, but that ideal of faith and fellowship which it had the honor to inaugurate has grown steadily in more distant longitudes, which hold in peculiar honor and gratitude the memory of Frothingham, Potter, and Bartol. The West then has a distinct religious type of its own, as social, and as time progresses these ideals approach nearer each other. Stirring events have been taking place in our midst of late which compel reflexion for the purpose of summing up gains already won and prognosticating the nature of those which wait our winning. The World's Fair led naturally to the Parliament of Religions, and the Parliament still more naturally to the Congress of Liberal Religious Societies. Surely, if the representatives of all the great religions of the world and all the sects of Christendom could meet on one platform and exchange ideas, it was high time for liberals to consider whether they could not do the same. The success of the Congress exceeded the expectations of its most active well-wishers, and was a surprise to all, but, indeed, the surprise should have been greater had it not succeeded. What was there to hinder its success? The question brings its own rebuke, the possibility of failure brings its own sense of shame. The merits of the Congress were such as to demonstrate themselves in different lights and degrees to different minds. To some minds the occasion was one of splendid and dramatic triumph of certain broad principles of religious trust and hospitality, for rhetorical applause and declamation, a waving of banners and blowing of trumpets. To others it was cause for quieter but as sincere congratulation over the growing popular trust and recognition of ideas long professed but not yet clearly understood in all their bearings and ramifications. To some the Congress was the beginning of a new order, the establishment of a new religion, perhaps a new church, to others it was more result than cause, more a culmination of long-existing ideas and aspirations than a new point and origin of growth, more full plant than seed. In short, to banish metaphor and other roundabout ways of speech, the Congress, in present view and perspective, seems to stand as the actual accomplishment on a large and imposing scale of what has often been attempted before on a smaller scale, with partial success and partial failure; owing to those innumerable hindrances attending good causes which lie in small numbers, popular misunderstanding and distrust, human apathy and inefficiency. I cannot but think the causes of the Congress's success lie further back than some of its friends suppose, and less in the immediate antecedents of numbers, enthusiasm and the practical spirit ruling all its debates, though these of course were potent aids to all that was achieved. It was the Congress itself that demanded attention, the personal worth and reputation of those most conspicuously connected with it. The Congress was a notable occasion because of the notable men taking part in it. All that these men had gained in mental grace or equipment, in spiritual breadth and sweetness, in their work as individuals, each in his own place and after his own methods, they brought to the Congress. The three-days meeting at Sinai Temple reached just that high-water mark of religious thought and spirit which had been reached by the different communions and

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different individuals composing it, no higher. It was not possible it should reach a higher. The opening evening struck the keynote of the assembly, a keynote supplied in the personal mental integrity of each of the speakers. The Jew brought the contributions of the Jew; "not though I am a Jew, but because I am a Jew," were the ringing words with which our learned rabbi, Dr. Hirsch, explained his relation to the new movement. And how natural that our gentle and upright friend, Mr. Salter, should see in the occasion the nearer hope and prophecy of wishes long cherished. Never was there so little need for the Ethical Culture disciple to disavow himself. And when the Unitarian spoke in the person of Mr. Savage, all were prepared to hear him say that he stood on no broader platform there than in his pulpit at home, and warmly applauded the saying. It was the self-respectful attitude of these men that won attention; their worth to the new and larger things waiting to be done was the better proved by this openly-expressed loyalty to their own.

There was one discordant note: that which jarred our ears on the third day, in the brief address of Mr. Martin of Tacoma, whose recent withdrawal from the Unitarian Church has brought him into public notice. It was reserved for this advocate of the "free" church, the one who claimed to stand in the broadest position there, to utter the only word of self-assumption, the only dictatorial phrase and comment. Doubtless Mr. Martin honestly believed himself morally bound to do what he did; but years of reflexion may lead him to see how widely he mistook the principle of true liberalism in the charge he made against the Congress of weakness and bad logic, because it was a congress of churches still wearing what he designated their sectarian names and badges, because it was a congress of Universalists and Unitarians and Jews, whereas it should be, so we were told, a congress of free churches. An episode like this, and it was only an episode, only showed, what many of us well knew before, that the spirit of ecclesiasticism may be as strong in the professed liberal as in the most pronounced type of orthodox opinion; that the dropping of a denominational name may not mean the departure from denominational narrowness and bigotry. The Congress revealed nothing more clearly than that it was little interested either in the assumption or the abolition of names; and its feeling of manifest indifference on this point is one the entire liberal world shares to-day. Religious names, like the personal and social appellations men and women wear, are matters of individual choice and concern only; especially is the world little interested in talk on this subject among that class of religionists who have always professed that true religion concerns none of these things.

I have said the Congress was a success; it is juster to say it promises success. Everything promised has yet to be achieved, and there are few who doubt the final achievement, whatever the immediate result may be. *The Open Court* has already pointed out one danger to the new movement: that of haste. Another danger springs from the doubt as to how much the Congress really is what its name imports, how much real community, not of purpose alone, but of action, is to be secured in the long list of officers gathered from far and near. A movement like this, so widespread in interest, so representative in character, cannot thrive unless it command a breadth and unity of actual work and effort commensurate with its geographical dimensions. If it is once suffered to localise or individualise itself in the work of a few it will fail. But failure in so just and grand a scheme can only be temporary. Final success, somewhere, is very sure.

WOMAN EMANCIPATION, WILL IT BE A SUCCESS?

BY DR. MARIE E. ZAKRZEWSKA.

When reading the article "The Oppression of Women" in *The Open Court* of June 7 (No. 354), I said to myself, this is written by a young man, who hopes to live to see his views and statements verified, in order to be able to shout by word of mouth or in print, "I told you so!" An older man would not expect that his reasoning upon this new point of the subject would in itself be of importance enough to be remembered by any one, beside himself.

However, I admit that the writer of this article is right, positively right, logically right, sentimentally right, to the end of these reasonings which are lucid and clearly stated.

Then I ask, What is the value of this new point, this proving that the evolution of woman's activity cannot be otherwise than feminine? If twice two makes *four*, no exertion of either man or woman can make it five; let us leave it as a positive fact, and not worry when we see any individual trying to prove that twice two makes *five*.

Why are all these mental somersaults and caprioles in men's writings needed? Will their attempts of prophesying or illustrating the future effects, arising from the activity of a yet unknown quantity, alter or check the present phenomenal awakening of woman's ambition?

Allow me to elucidate my meaning by a true story of what happened in my native city, Berlin, Prussia, about fifty years ago.

In a courtyard lived a poor family. The father was a locksmith by trade. His eldest son, a boy of twelve years, bright, industrious, and smart, spent all his time either in the schoolroom, or in his father's shop; not even on Sundays could this poor family enjoy rest, but worked in the dreary shop. This boy was very fond

of eating string-beans, which the mother could seldom afford to buy. The boy therefore decided to raise them in a box before his window; he used some old pieces of boards for the construction of his window-garden; and all the inmates of the front as well as of the rear houses became interested in his experiment. Everybody felt it to be his or her duty to express opinions on the subject. Thus it came to pass that the boy was told, that the beans planted would rot because the boards were not porous enough to allow air to pass; that the soil in the box could not be regulated as regards the daily moisture needed; that the rain could not be discharged after flooding the window-garden; that the heat of the sun reflected from the window-glass would burn the tender growths; that not more than two stalks of beans could be raised if the seed turned out to be dwarf-beans, and if pole-beans, he could not fasten them high enough; that no good growth could be expected, if there were not a flow of air all around to favor the plant; that the already dark room (this being the only window), would be darkened too much by the growing plants, and thus the three children who slept in it would not awaken in time for school, which commenced at 7 o'clock; that the health of the children would be injured by the exhalation of the plants and the moisture of the earth in the box; that his mother should be warned not to allow such an experiment, as it would be a moral injury to the boy, when disappointed in the success of his plan, as the most valuable of our emotions, hope, would be destroyed; that the father ought to realise that he would lose, at least half an hour daily, of the boy's help in the shop; in fact, all the arguments and all the prophesying were that a complete failure would be the result, and that the boy would be crushed under the weight of it.

However, the boy prepared his box, took note of many of the suggestions, obviated some of the objections, such as perforating his box with small holes, by opening the windows when the sun shone, from ten in the morning to three in the afternoon, etc.; the twelve beans which he had planted, grew, and proved to be pole-beans; so he tied the strings for them to climb upon as high as the tenant above his room allowed him to do, watered and nursed his plantation with care and love, and lo, and behold, the beans flourished, and blossomed, and bore fruit, relatively plentifully. During this time of growth an old and wise tenant of the front house, also a professor, joined the group who for eight weeks had watched and discussed in the yard this wilful boy's experiment; this critic remarked that he observed a new phase, of which nobody had thus far taken notice, and which might have both good and bad effects; namely, that a hail-storm might yet come, and destroy this garden, although there might also be a good result as the plants would protect the window-panes, if the storm should occur when the windows were closed. All admitted that this was true, and all admired the wisdom of the Herr Professor, and went to their respective abodes a little mortified that they had not thought before of this neglected point of the subject.

The boy had the satisfaction of gathering a mess of well-grown beans, sufficient for a hearty meal for the whole family. But while eating his favorite dish, he said, "Well, mother, I did succeed; but to tell the truth the beans don't taste as good as those which grow in the fields; so next year I will not try again, but I shall sow nasturtium-seeds for you to enjoy." He did so, and his window was a perfect delight and source of cheer to him, to his mother, and to the tenants of the little court. He continued to do this until he had to enter the army, at eighteen years of age; his younger brothers (he had no sisters) followed in his footsteps, and when I left Berlin, my last look was at the nasturtium window.

Let me ask, did it matter much which the boy raised, beans or nasturtiums? What use was it to him, or his family, or the tenants, when the latter all joined in the chorus, "I thought so," or "I told him he could not raise beans"? Let each one try nature's forces; take his chance; and twice two will always remain four.

THE CIRCLE SQUARER.

Professor Newman was deeply immersed in the correction of mathematical examination papers when Bridget, the Irish servant-girl, handed him a card, saying: "A gentleman wishes to see you; he says he is a mathematician and has read your works." The Professor was never in an amiable disposition when confronted with the blunders of his students, for he felt sick at heart and a gloomy pessimism spread over his mind. He used to give vent to his bitter feelings by complaining about the thick skulls of the human race and the hard life of a teacher. But hearing that there was a man who had read his works and appreciated them, a beam of sunshine passed over his face and he said graciously, "Show the gentleman in!"

The stranger entered and Professor Newman, reading the name on the card, addressed him with a ring of expectancy in his voice: "Mr. Charles Gorner? What can I do for you."

Mr. Gorner bowed politely. He was tall and strong, wore a full beard, and was blessed by nature with thick hair. There was a certain unsteadiness in his eyes, but no evidence of a lack of will-power. His whole appearance indicated that he was capable of enthusiasm and of devotion to a great cause.

"Have I the honor," began Mr. Gorner, hesitat-

ingly, "of addressing the famous Professor Newman, who has written those deep researches on curves of the the third and fourth order?"

"I am the same Newman who has written on curves of the third and fourth order," replied the Professor, "but modesty forbids me to concede that I am famous."

"Never mind, Professor," rejoined Mr. Gorner, "you are famous among those who have read your works and can appreciate your labors. It may be that you are not widely known among the masses, the vulgar and uneducated people. But all who are mathematical scholars will ungrudgingly testify to your merits; and I myself being a mathematician count myself among your admirers."

The two gentlemen shook hands and the stranger took a seat. A long conversation followed on general topics, in which Mr. Gorner showed himself not unacquainted with the modern scientists and philosophers. The various subjects were only lightly touched upon and the Professor had already formed a good opinion of his admirer, when the latter broached a new topic. "Have you ever taken any interest in the quadrature of the circle?"

"No, not much," replied the Professor coldly, "I once had the misfortune of being interviewed by a *Herald* reporter and dictated to him a few remarks explaining the problem in brief outlines as popularly as possible."

"What, then, is your solution?" asked Mr. Gorner excitedly.

"My solution?" repeated Professor Newman, and for the first time he began to look at his guest with suspicion. "Do you expect me to say that a geometrical construction of the square is impossible or do you want my solution of π? Of course it is 3.14159 26535 89793, etc., etc."

"I see!" said Mr. Gorner, "you accept the usual solution and having little interest in the problem, you have not taken the trouble to examine whether the present theory of π is correct or not. I have made it the study of my life and devoted more than twenty years of most concentrated thought upon it. You may believe me or not, but I assure you I have solved the problem. I have come solely for the purpose of acquainting you with my solution. I have confidence in your ability and honesty. Being a famous mathematician yourself, you will understand at once the greatness of my feat; nor will you begrudge me the honor of having been the first mathematician to make this discovery. I shall be glad to give you my solution and propose to let you have a share in the honor of its discovery. For I am unknown in the mathematical world and you have all the facilities for presenting it to the public."

The Professor gazed at his visitor in utter dismay.

"I am glad to see," continued Mr. Gorner, "that you are not so bigoted as your colleagues who would even refuse to listen to a man who has spent thousands upon thousands in the interest of science."

"I suppose you have had many sad experiences with mathematicians," continued the Professor sarcastically. "Undoubtedly you have found them altogether too dogmatic for your advanced views."

"Experiences?" cried Mr. Gorner, "Indeed I have had enough; but I will shame them all and when you publish my solution, they will regret having rejected so honorable an offer!"

"My dear sir," said the Professor, "I cannot publish your solution whatever it may be, for many reasons. First, to confess it openly, I am as bigoted and dogmatic as the rest of my colleagues, and then, if you have truly found the solution, I should be ashamed of taking any of the honor away from you. Furthermore, I am overburdened with work and can undertake no new duties."

"I can explain to you my solution in a few minutes," said Mr. Gorner, "and you will understand that I have hit it. Have but a little patience, we may yet come to terms. Understand me aright, Professor, I do not want you to trouble with the subject for nothing. If you accept my offer of publishing my solution, I shall pay you, and I shall pay you a goodly fee, say a couple of hundred dollars. There is money in it, Professor, and what is more, there is honor in it. My solution is the only correct solution. Or do you think I would invest so much money in it if I were not quite sure of the truth?"

The eyes of Mr. Gorner were glowing with enthusiasm and confidence, and the Professor felt perfectly convinced that his guest was a remarkable man and that he must have discovered something extraordinary. To overcome the spell which an enthusiastic conviction always carries with it, he said in an undertone, as if speaking to himself: "The quadrature of the circle with compasses and ruler is an impossibility."

Mr. Gorner jumped from his chair in excitement: "Never say a thing is impossible. Remember the story of Napoleon the Great when waging war against England. I have read in a very learned book on his life that an inventor once came to him and offered him the invention of propelling ships by steam, and the Emperor dismissed him as one would send away a man fit for a lunatic asylum. Had Napoleon listened to that genius, had he built steamships according to this proposition, he would undoubtedly have beaten the English, and the world would have been his. Napoleon lost his chance, because he said, 'That is impossible.' You are to-day in a position similar to that of Napoleon. Never say that anything is impossible."

"I know," replied Professor Newman, "that many things are possible which we regard as impossible; but there are things which are impossible, not because they are very difficult to achieve, but because they involve self-contradictions. Look here," and drawing a circle on a sheet of paper, he added: "this is a circle. Now, it is impossible to draw another circle lying in the same plane which shall cut this circle in more than two points. Two circles in the same plane either do not intersect at all, or they touch, or they cut each other in two points. If I request you to draw a circle that is to touch another circle in three points, you will tell me: 'That won't do; that is impossible'; and you are right. It *is* impossible, and the squaring of the circle by compasses and ruler is impossible, exactly in the same way; the ratio of the radius and the circumference cannot be expressed in whole numbers, and that settles the question."

"But, my dear sir," replied Mr. Gorner, "I know what I propose; and, having devoted my whole life to the problem, I ought to know better than you. I do not dispute that you know more about curves of the third and fourth order than I; so do not envy me my claim of understanding better the quadrature of the circle."

The Professor tried to get rid of his visitor, but he found him too adroit and too eloquent to permit the conversation to be cut off, and if they had had an impartial listener unacquainted with mathematics, he would have judged that the Professor was a narrow-minded fool, not to listen to the propositions of so generous and enthusiastic a genius. After a discussion of about two hours Mr. Gorner left the Professor; now, at last, he had come to the conclusion that there was no hope of finding a professional mathematician who would endorse his solution. So he decided to publish his theory on his own account.

When Mr. Gorner arrived at his hotel he found a letter from home. His wife complained bitterly about his long absence and urged him to return. "No, I cannot," he said to himself; "I have set myself a high aim, and I must accomplish my purpose, cost what it may. He felt very gloomy, but he took courage again in recollecting the miseries which had never been spared to genius. "Cheer up!" he said to himself. "Cheer up! I must not be despondent. A great future is before me. And I reckon that the sufferings of this present time are not worthy to be compared with the glory which shall be revealed in me."

The next morning Mr. Gorner went to the library and ordered all the books he could find in the catalogue on the number π and the quadrature of the circle. He soon felt his inability to comprehend the formulas and deductions, but remained, nevertheless, unshaken in his conviction that he was in possession of the truth. He wrote his solution down and added a few other articles which had been suggested to him while discussing his favorite topic with engineers and other practical workers. Having heard that hitherto no one had succeeded in constructing a perpetual-motion machine, he considered the difficulty and was amazed that he at once saw his way of accomplishing it. In another happy moment he solved the problem of gravitation. There was not the slightest doubt to him that two masses were pushed toward each other by ether, which thus voluntarily generated electric currents. In glancing through Professor Maxwell's book, "Matter and Motion," he discovered several grave mistakes as to the conditions of the change of potential into kinetic energy. He put down his objections on paper and embodied them in his book. Another chapter he devoted to the problem of the origin of life. Here also he resorted to electricity; as soon as we understand that the brain is a kind of battery which on proper occasions causes electric discharges, we shall at once comprehend the true nature of vitalism.

After several weeks' labor the book was completed and elegantly typewritten, and the author had only to add a preface. What an unspeakable joy overcame him when he contemplated the scope of his achievements. All the great problems of science were here discussed and correctly solved. The mysteries of being were explained, and the glory of God, heretofore dimmed by unbelief and superstition, shone brightly again. And the instrument of attaining this all had not been a learned professor, but a relatively unschooled man! A sentiment of modest pride— a truly religious gladness entered his soul, and he felt himself in the presence of God. A pious gratitude seized him, and he wrote his preface in a moment of holy inspiration. He confessed that he himself was but like a child, ignorant and unskilled; but by the grace of God he had been chosen as an unworthy vehicle of divine revelation. "To-day," he wrote, "the prophecy has been fulfilled. The Lord knoweth the thoughts of the wise that they are vain; he taketh the wise in their own craftiness; and I can truly rejoice with Jesus Christ when he said: 'I thank thee, O Father, Lord of heaven and earth, because thou hast hid these things from the wise and prudent and hast revealed them unto babes. Even so, Father, for so it seemed good in thy sight. The sages of the world are blinded by their own haughtiness so as not to see the truth. They proclaim the irrationality of π, thus rendering the whole universe irrational, the motions of the celestial spheres not less than the circular whirls of the imperceptibly small atoms. Since God, the Lord, revealed to me the true nature of π, we can now proudly say that the circle has been squared, and the square has been circled."

The book was finished, and its title read: "The Quadrature of the Circle, a Revelation"; and no more appropriate motto could be found than St. Paul's sentence from his Epistle to the Romans, i, 22: "Professing themselves to be wise, they became fools."

Thus far Mr. Gorner's work had proceeded satisfactorily, but now his troubles again began. He went from publisher to publisher, and met with the same fate everywhere. They gave various excuses, but all of them refused to publish the book, even though he would stand the whole cost. At last, however, he was successful in his quest. A clerk in one of the great publishing-houses knew of a young enterprising printer, Mr. Erich Whyte, who would not only be glad to undertake the job, but would also be interested in his work. "Mr. Whyte," he added, "is a talented man and quite a scholar. He is President of the Progressive Thinkers' Club and may be he will invite you to give them a lecture on your discoveries."

Mr. Gorner called on Mr. Whyte and found him willing to undertake the publication of the booklet, terms cash in advance. Concerning the Progressive Thinkers' Club, Mr. Whyte said that he would be delighted to introduce Mr. Gorner, especially as he recognised his great scientific abilities. "Our club, you ought to know," said Mr. Whyte, "consists of very prominent scholars who have distinguished themselves in their various branches and I must be careful not to invite men that are of no consequence. At our last meeting we listened to the lecture of Mr. Hamlin of London, England. He came to me with an introduction from some philosophical academy of high standing, I believe it was the Royal Society. Let me see! I have the letter in my desk. Here it is."

Mr. Whyte took out an elegantly emblazoned document, duly sealed and signed by the President of the Kings of Wisdom, a society for propagating the truth and promoting the welfare of England, and handed it to Mr. Gorner. "Mr. Hamlin," he said, "is a man of great renown in his country, and I am told that the Royal Society, of which he is a member, enjoys a high reputation. But imagine, he denies the Copernican system! Here is a pamphlet of his in which he challenges the whole world to prove that the earth is revolving round the sun. We had a great discussion. You ought to have heard it. Mrs. Hilman, our astrologer, plied him hard, but whether his theory is correct or not, he defended his views very ably. Especially the scriptural evidence seemed to me very strong."

Mr. Gorner did not seem to relish Mr. Whyte's admiration for one who proposed to overthrow the Copernican system. He observed that the Club of the Kings of Wisdom was not the Royal Society of England, but Mr. Whyte stuck to his belief that the latter was merely a popular name for the former. He insisted on the fact that royal means kingly and if there was a difference, it must be very slight.

Was Mr. Gorner aware that Mr. Hamlin's case was closely analogous to his own? No, he was not; but may be he felt it in the unconscious depths of his soul. A sentiment of jealousy took hold of him, and he could not help hating and despising Mr. Hamlin, not because he had propounded a nonsensical theory, but because he imagined that he was known and admired in England, and sure to become famous within a few months in America. He took the pamphlet, sat down and read it. It began as follows:

> "Is there such another instance on record, where one individual has for exactly twenty years (from January, 1870, to January, 1890) stood his ground against all the most scientific and highly educated men of the day, and who has, over and over again, challenged all the Astronomers, all the Geographers, all the Geologists, all the Educational Professors, all the Practical Men in the United Kingdom to submit one single fact in support of the Globular Theory, which could not be openly shown to be a baseless fiction and a grossly false invention, without one redeeming feature to justify its adoption or excuse its retention in our schools and colleges, however supported it may be by all the pulpits and pressmen in the world? It has been unremittingly and publicly denounced as not only unscriptural, but irrational, unscientific, and opposed by every test to which ingenuity and skill could appeal. And the most unanswerable proof of its spurious character is the fact that during the whole of those twenty years, no man of *honor* or possessed of any scientific reputation or occupying any social position, has ventured to oppose Mr. Hamlin or make the feeblest effort to justify or plead for the truth of one single condition connected with the globular theory!"

We spare the reader and content ourselves with adding the *résumé* of the pamphlet, which sums up Mr. Hamlin's view as follows:

> "The Earth *can* be naught else than a motionless plane, with the Sun, Moon, and Stars revolving at very moderate distances above us. This is the truth of God, who described the heaven as His throne and the earth as His footstool; while the notion of a revolving Globe is an impious blasphemy, contradicting every Scriptural text from Genesis to Revelations, and contrary to every sense and faculty with which the Almighty has endowed us!"

On the back of the pamphlet the announcement was displayed in big letters:

> "A premium of £50 will be paid to any Parochial Charity in England, provided the incumbent can furnish or obtain any justification for teaching these Pagan superstitions to the children or students of all the schools and colleges of this professedly protestant kingdom;—showing when and by whom they were introduced and authorised, and the ages of the pupils on whom they were originally imposed."

Having brooded for a time over the pamphlet of this powerful rival for fame, Mr. Gorner said: "I shall refute Mr. Hamlin's proposition; he is no scientist; he knows nothing of mathematics and does not understand the proper explanation of the passages from the Bible. He says 'the Mosaic records are unassailable,'—of course they are unassailable, but we must be able to read between the lines. A literal interpretation is

inadmissible. Mr. Hamlin's theory may find recognition in old, conservative England, but it won't do for the United States. Americans are too progressive, too much advanced for that!"

Mr. Whyte suspended his judgment. He said he was an agnostic and if he was convinced of anything, it was that we were groping in the dark. "After all," he said, "what do we know for certain? All the propositions of science and philosophy are mere makeshifts. Is not matter an unfathomable mystery? If we analyse the idea of motion, we find that it is a self-contradiction. Nor do we know what spirit is. Physicists call one mode of the Unknowable 'kinetic energy' and another mode of the Unknowable 'potential energy,' and say that one changes into the other. We express 'mind' in terms of 'matter' and 'matter' in terms of 'mind' and not knowing either, we explain the unknown quantity x by another unknown quantity y. Is not that the sum total of all philosophy?"

Mr. Gorner did not know what to answer, and Mr. Whyte continued: "Our school philosophers, to be sure, imagine they have found the truth. You ought to know best how conceited they are. They think they have found the value of π, they make long incomprehensible calculations and won't allow anybody else to have an opinion on the subject. I am glad to meet a scholar like you brave enough to defy them all and who has the courage of his convictions. Well, let us learn from you, and explain us your solution at the next meeting of the Progressive Thinkers' Club. Will you?"

The two gentlemen parted, and Mr. Gorner felt that he had now at last found the opportunity of coming to the front in a dignified manner, and success would soon dawn upon his great undertaking.

[TO BE CONCLUDED.]

SCIENCE AND PROGRESS.

NAMELESS EVILS.

THE neglect of the once flourishing science of enforcing silence is as creditable to our latter-day type of civilisation as the decadence of the arts devoted to the manufacture of inquisitorial instruments of torture. Sir William Jones, in the second volume of his "Asiatic Researches," discusses the tradition of the Vampire King, who once reigned over the kingdom of Ayoda (the modern Oude), and comes to the conclusion that the insatiable and complaint-suppressing monster was a despot who had brought the control of free speech to a high degree of perfection. Justinian and Philip the Second, too, were past-masters of the art of silencing adverse comments; but Louis XIV. already realised the difficulty of controlling the activity of the press, and that threat-defying power has since become so irresistible that even the temporary suppression of truth can be effected only by the trick of excluding certain topics from the arena of free inquiry. The supporters of moribund dogmas have secured a respite by persuading the public that the exposure of pious frauds is "in bad taste," and our American boodle-politicians appear to have attained the same end by inducing party-organs of all classes to avoid discussion of the Pension Outrage, the insatiable vampire that is draining the life-blood of silent, or rather temporarily silenced, victims.

MENTAL CLASS PRIVILEGES.

Emile Zola maintains that all people of superior talents are aristocrats by instinct, and predicts that the coming age of communism and Bellamy workhouse republics will be highly unauspicious to the development of genius. "One tendency of radical democracies," he says, "is always to suppress intellectual pre-eminence, and a triumphant *plebs* would be sure to gratify its secret grudge against aristocrats,—the aristocrats of nature not excepted." But is there really any such danger? Mental energy and knowledge are powers in a mob-meeting, not less than in a congress of kings, and the French nation cannot have forgotten its boast that the revolution gave talents of all sorts an unprecedented chance of recognition. Marat, with all his crotchets, had a clearer insight into the principles of popularity. "We have got rid of the *cagots* [clerical obscurantists] so do not be afraid to show your talents," he told a cautious colleague, "the world needs them too much to neglect them; only take care not to assume any pompous titles or emblazon your coach with a coat-of-arms."

A PROGRESSIVE MANIA.

The Anti-Sport Association of British prudes and hypocrites has far eclipsed the programme of the primitive Quakers, and may soon reach a state of sanctity that will question a man's right to attend a game of lawn-tennis. Before the accession of Queen Elizabeth, bull-fights were considered rather tame, unless the managers could secure the co-operation of an able-bodied bear; but in 1812, when Lord Wellington held the military dictatorship of Portugal, a committee of British moralists urged him to use his influence for the suppression of bull-rings and the introduction of race-courses, Catalonian wrestling-matches, and similar unobjectionable pastimes. The descendants of those reformers now groan in spirit at the recollection of that compromise project. "The newspaper-battle over Lord Rosebery's connexion with the turf continues with more bitterness than ever," says a London cablegram. "The provincial journals have joined in the hue and cry, and it is noteworthy that several Scotch newspapers, which were among the strongest supporters of Mr. Gladstone, have fiercely attacked Lord Rosebery's horse-racing proclivities, comparing Mr. Gladstone's scholarly pursuits with his successor's partaking in what they call a carnival of brutality and wickedness." Evidently, this is an age of progress. Before the end of the twentieth century, Premier Daisyblossom will have to kneel in penance on the back porch of the Archbishop of Canterbury to expiate a foible for canary-bird shows. "No self-respecting Christian," his Scotch censors will remark, "can afford to waste a vote on this abettor of worldliness and impenitence. Let him prove his contrition by enforcing the suppression of zoölogical gardens and similar vanities, unworthy of a tithe-paying nation, and emulate the scholarly pursuits of Mr. Gravestone, who has just published a second treatise on the 'Aramaic Evidences of the Post-Pauline Miracles.'"

SCHOOL SUBVENTIONS.

The school-boards of Camden and Jersey City have decided to furnish the children of the poor free books, and, in case of need, one meal a day (a plate of vegetable soup with a piece of bread and meat), and New York papers question the expedience of bribing the young citizens of an intelligent commonwealth to accept the boon of a free education. But is the special form of that "bribe" any worse than the gratuitous provision of fuel and weather-proof buildings?—or worse than the billions expended to purchase connivance at the curse of dogmatic and political stultification? If the distribution of food to starving school-children is "Socialism" the doctrines of Charles Fourier have their redeeming features.

THE AMERICAN INQUISITION.

The *Index Expurgatorius*, published by Grand Inquisitor Comstock, now includes the following interactional classics: "Ovid's Art of Love, Decameron, Tom Jones, Rousseau's Confessions, Heptameron, Rabelais, Aladdin, Thousand and One Nights." With a single exception, not one of the works named can plead guilty to the sins of prurience which half a dozen American sensation journals repeat week after week, and in three of the others the objectionable passages occur as incidentally as in the historical books of the Old Testament. Mr. Comstock might as well impeach the biographies of Plutarch or Hallam's "History of the Middle Ages."

WEEKLY TRIALS.

The Mohammedans of British India have founded a theological college at Agra, where fifteen professors, with six assistants, will expound the doctrine of the Moslem Scriptures. Thus far, the patronage of the institution is, however, so slight that lectures will be delivered only on three days of the week. The rest of the time will probably be taken up by heresy trials, since the lecturers are required to teach the absolute infallibility of the Koran.

REFINEMENTS OF NOMENCLATURE.

The Druses of Mount Lebanon stick to the belief that Satan can be invoked with impunity if the conjurer will only observe the precaution to avoid vulgar forms of nomenclature. Instead of calling the enemy of mankind "Clootie" or "Old Scratch," he should address him as "the Lord of the Grand Furnace," or "the Gentleman with the Coat-tail Arabesque." Our American contemporaries seem to incline to a similar theory. The Mexican bushwhackers, who steal pigs and pack-saddles under political pretexts, call themselves "Patriots." Our rum-hole spiders invite flies to their "saloons," and the Coxey hobogogues, who have all along refused to accept any kind of work, on any terms of remuneration, now describe their followers as "The Industrial Army of the United States of America." FELIX L. OSWALD.

BOOK REVIEWS.

THE POLITICAL ECONOMY OF NATURAL LAW. By *Henry Wood.* Boston: Lee and Shephard. 1894. Pp. 305. Price $1.25.

From its title one would expect a more rigorous and learned treatise than this. The general purpose of the volume "is the "outlining of a political economy which is natural and practical, "rather than artificial and theoretical. While independent of "professional methods, it aims to be usefully suggestive to the "popular mind. As a treatise, it is not scholastic, statistical, or "historic but rather an earnest search for inherent laws and prin-"ciples." The work is conveniently cut up into a number of short and simple discussions of the principal questions of political economy, such as: Supply and Demand, The Law of Competition, The Law of Co-operation, Labor and Production, Combinations of Capital, Combinations of Labor, Employers and Profit Sharing, Employees: Their Obligations and Privileges, Governmental Arbitration, Economic Legislation and Its Proper Limits, Dependence and Poverty, Socialism as a Political System, Can Capital and Labor be Harmonised, Wealth and Its Unequal Distribution, The Law of Centralisation, Action and Reaction or "Booms" and Panics, Money and Coinage, Tariffs and Protection, The Modern Corporation, The Abuses of Corporate Management, The Evolution of the Railroad, Industrial Education. The general reader will obtain much suggestive information from the work. On some main questions, Mr. Wood's views are in our judgment not logically worked out, but in the discussion of subordinate topics he always throws out valuable practical hints. His views on "Dependence and Poverty," on "Wealth and Its Unequal Distribution," and on "Industrial Education" are excellent. "The great educational lack of the present day," he says in the latter place, "is in morality and industry." One dangerous methodological contention of Mr. Wood is, that intellectual logic is inadequate to the delicate interpretation of Natural Law, and of its articulated adjustment to human affairs. "Intuition alone," he says, "is able "to put its ear to the ground and distinguish between discordant, "even though faint jars, and concordant vibrations. Only that "delicate insight which lies deeper than a mere intellectual ac-"count of phenomena, can cognise the lights and shades of those "fine but immutable golden threads which are shot through the "entire social fabric."

We may end by quoting his excellent conclusion which distinctly signalises the point of view of the work. "Man is One; "and just in the measure that that grand fact is installed in human "consciousness, are *all* the natural principles found to be altru-"istic. Any philosophy of Humanity is incomplete which does "not regard it as an *Organism*. Its members, though unlike, have "one interest and one order. Any suffering or rejoiceing cannot "be localised, for its vibrations thrill to the utmost limits." McC.

NOTES.

Dr. Paul von Ritter of Basel, an ardent admirer of the monistic philosophy and a personal friend of Prof. Ernst Haeckel, has founded at the University of Jena a new chair which shall be called "The Haeckel Professorship for Geology and Palæontology." At the same time information reaches us that the Linnæan Society of London has given to Professor Haeckel, for his merits in biological research, the great gold medal which is only awarded every tenth year.

We are requested by the Board of Education of the City of Chicago to announce that the examination of candidates (gentlemen and ladies) for the position of Assistants at the City High Schools in Mechanical and Art Drawing, Water Colors, etc., will take place July 5, 1894, at 9 A. M., in the West Division High School, corner Congress Street and Ogden Avenue. Paper, Charcoal, and Drawing-Boards will be supplied. By addressing the Supervisor at the offices of the Board of Education, City Hall, Third Floor, any further information will be given.

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WOMAN SUFFRAGE IN FRANCE.

BY THEODORE STANTON.

The energetic effort being made in New York State to have the Constitutional Convention strike out the word "male" from the article establishing the qualifications for the exercise of the elective franchise, has called wide-spread attention to the question of woman suffrage. It has occurred to me, therefore, that it might be interesting to see what has been thought and done in regard to this same subject in France, which in the field of ideas, at least, has always led the world. Though it is true that France has accomplished less than several other European countries in the practical amelioration of woman's condition, it long ago solved theoretically the "woman question," as it has solved nearly all of the other great political and social problems of the nineteenth century. What her thinkers and reformers have written and spoken, other more favorably situated nations have put into practice.

Condorcet, whom Mill pronounces "one of the wisest and noblest of men," spoke out repeatedly and plainly, on the eve of the French Revolution, in favor of the rights of women. He did not hesitate to declare for their political enfranchisement. Nor did he stand alone in holding this opinion. Michelet paints a vivid picture of the celebrated orator and member of the Convention, Abbé Fauchet, speaking, in 1790, on this subject, with Condorcet among his listeners. Sieyès, Saint-Just and other leaders of the epoch have left on record eloquent appeals for the enlarging of woman's public sphere.

Neither was the press of the Revolution silent on the subject. Besides the numerous tracts, pamphlets, and books written for and against the question, several newspapers came out warmly for extending the liberties of women. And more than one bill passed by the Assembly and Convention put these ideas on the statute books in the form of laws.

Nor were women themselves passive spectators of this movement in their favor. Several petitions, drawn up by female pens, prove this. One of these petitions, bearing the date of 1789, prays for the granting of women's civil and political rights and their admission to membership in the legislature, while another begs that both sexes be placed on an exact equality and that even the pulpit be opened to women,—not a slight request in a Catholic country.

Thus the advocacy of great men and the activity of women themselves seemed, in the early days of the Revolution, to portend the opening of a new era for the female sex. But what followed would appear to justify the assertion which has been made, that the authors of the revolt were only using women for the advancement of selfish ends. It is certain that when the revolutionary movement was well under way, these men deserted their early coadjutors. In the beginning, women were encouraged to found clubs and their ardor in the cause was applauded, but the object gained, these clubs were abolished, this ardor checked and women saw themselves finally thrust back into their old dependent and circumscribed position.

The Republic was gradually merged into the Empire, which was the *coup de grace* to the aspirations of the women of 1789. The Empire not only dissipated their day-dreams, but it fastened the Napoleonic code about their necks, with all its indignities and injustices, which, with scarcely an exception have remained in force even down to the present hour. It was a fatal hour for women's interests. The general public had not forgotten the many disorders in which the female revolutionists had participated and was unfriendly to the weaker sex. The codifiers were dry old followers of the Roman law, and Bonaparte, woman's evil genius, was all-powerful among them. The spirit with which the Emperor entered upon his task may be judged from this remark to his colleagues: "A husband ought to have absolute control over the actions of his wife. He should have the right to say to her: 'Madam, you shall not go out; Madam, you shall not go to the theater; Madam, you shall not see such or such a person.'"

Then came the reactionary Restoration whose views were well exemplified in this *ipse dixit* of one of its philosophers, M. de Bonald: "Man and woman are not equals and can never become such." Divorce was abolished and an attempt was even made by the government to re-establish primogeniture, which would have been a tremendous blow to women, for the French law of inheritance places daughters on an absolutely

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equal footing with sons, one of the very few provisions of the Napoleonic code treating both sexes alike.

With the liberal reawakening of 1830 the Woman Question revived. The socialists, individual women, societies, and the newspapers began to turn their attention to the subject. During Louis Philippe's reign two or three women's rights journals appeared at Paris. One of these was edited by Mme. Poutret de Mauchamps who used the same argument to prove that the Charter of 1830 conferred political rights on French women as do the American advocates of woman suffrage in their interpretation of the United States Constitution. She took the ground that in proclaiming the political enfranchisement of French men, the generic term was used, so that the new Charter of Liberties included French women in its provisions. Every issue of Mme. de Mauchamps's paper—*La Gazette des Femmes*, which is to be found at the Paris National Library—contains a petition addressed to king and Parliament praying for reforms in the code, for political rights, for the admission of women to the Institute and to the universities, etc. These petitions were ably drawn up, sensible in their claims and some of their demands—the opening of the universities to women, for instance—were granted in subsequent years. They were sometimes reported by the Committees of the Chamber of Deputies and briefly discussed, but were heaped with ridicule and soon forgotten,—a striking commentary on the seriousness of French legislators and their high opinion of the capabilities of the other sex. It should be added, however, that what was true in 1830 would not be true in 1894. Some progress has unquestionably been made, in this respect, in France during the past sixty years, as will be shown further on in this article. But much more still remains to be made.

That this demand for women's political rights attracted some share of public attention during Louis Philippe's reign is evidenced in several ways. Thus, at one of the elections several voters cast their ballots for the candidate's wife, rather than for the candidate himself, as a protest against the exclusion of women from political life. During this same period Laboulaye published an important essay on the civil and political condition of women, and M. Legouvé, whose father sang, in 1801, the "Merit of Women" in a celebrated poem, lectured in the College of France on the "Moral History of Woman," these lectures being brought together later into a volume with the foregoing title. The book is very liberal in tone and written in a charming style. It was soon read all over Europe and is still remembered. "Equality in difference" was its keynote. "The question is not to make woman a man, but to complete man by woman," the author says elsewhere in the volume.

While this Platonic consideration of the Woman Question was in progress, the revolution of 1848 suddenly burst upon France, and for a moment it seemed as if the era of female emancipation had come at last. But the magnificent dreams of the second Republic were never realised, at least in so far as women were concerned. "In 1848 there was a grand agitation," Laboulaye once wrote me, "great demands, but I know of nothing durable or solid on this question." Victor Considérant (who died in Paris last winter), the well-known disciple of Fourier, made a strong effort—as member of the Committee on the Constitution in the Assembly—to have woman suffrage introduced into the Constitution of the new Republic. But he labored in vain. However, his was not the only endeavor to advance and protect the interests of French women. When, in the summer of 1851, it was proposed in the Chamber to deny them the right of petition in political affairs, three distinguished public men—Laurent de l'Ardèche, Victor Schœlcher, and Crémieux—opposed the motion and it was defeated; and when, in November of the same year, the subject of the reorganisation of the municipal system came up for consideration, M. Pierre Leroux, the famous Socialistic Radical, offered as an amendment to Article I. of the bill that "the body of electors shall be composed of French men *and women* of legal age." He supported this amendment in a speech which filled three columns of the official *Moniteur*—the number for November 22, 1851—but which was received with shouts of laughter. The French Deputies of 1848 seemed to have been as risible as those of 1830 whenever woman suffrage was broached.

The Republic fell, the Second Empire rose on its ruins and the progress of the woman's movement was again abruptly checked, though speculation on the subject in the form of newspaper or review articles, pamphlets or books, was rifer than ever before. Several authors of repute came out squarely for woman suffrage, and the late Senator Eugène Pelletan said in his book entitled "The Mother": "By keeping women outside of politics, we diminish by one half the soul of the country."

But it is since the advent of the present Republic that the Woman Question, like every other liberal measure, has gained new life and fresh vigor. At the beginning of 1871, Mlle. Julie Daubié, "one of the worthiest women I have ever known," Laboulaye once remarked, and the first female bachelor of arts in France, having taken her degree in 1862, I believe, announced in the public prints the approaching organisation of an Association for Woman Suffrage. But this promising reformer died before accomplishing her object, which was very dear to her.

The question of woman suffrage, in one form or another, has come up several times, during the past

twenty years, before the French Parliament. In 1874, when the Versailles National Assembly was preparing a new election bill, one member moved that every married man or widower with a child should be given the right to deposit two ballots. Another Deputy supported the motion but would so amend it that the widower would have two votes even if childless. Count de Douhet went still further: he would give every married man, first a vote for himself, another for his wife and finally one for each child. The committee to which these motions were referred favored the idea contained in them, and Article 7 of the bill which they reported read as follows: "Every married voter, or widower with children or grandchildren, shall have a double vote." Although this article failed to secure a majority and although one of the objects which its supporters had in view was, probably, to increase the very low birth-rate in France, still it shows that many public men do not consider women sufficiently represented at the polls under the present system.

Another proposal of the committee was quite as significant. It moved an amendment to the law governing municipal suffrage by which tax-paying women would vote under certain circumstances. Though the measure was rejected, the Government voted with the minority.

Five years later, in 1879, M. Laroche-Joubert declared in the Chamber of Deputies that he would vote in favor of the admission of women if one should be elected to a seat,—a situation that would not arise, however. But the declaration was commented upon at the time.

The Parliamentary friends of woman's rights have not been satisfied, however, with these academic discussions and propositions. They have made two or three attempts to get some of their demands formulated as laws and they are now on the point of succeeding in one of these efforts. A bill granting women engaged in business participation in the choice of the members of the Tribunals of Commerce will probably be a law before this article appears in print. It has already passed the Senate and is now in the hands of a committee of the Chamber that has decided unanimously to report it favorably. When in March 1881, the late M. de Gasté, one of the pioneer advocates in France of woman suffrage, introduced this bill into the Chamber, it was rejected, and Gambetta, who was then Speaker, seized the occasion to perpetrate a witticism at the expense of its friends. It should be explained that the Tribunals of Commerce pronounce decisions concerning the bankruptcy of merchants and trades people and settle disputes which may arise among them. It should also be added that while the new law will make business women voters it will not make them eligible to election to the tribunals.

Another step in this same direction is being taken. A bill has been introduced into Parliament conferring on working women the choice of members of the Councils of Prud'hommes, one of the few institutions of the old régime which have been preserved by modern France. The duty of this body is the settlement of all difficulties arising between workmen and their employers. "They are the industrial justices of the peace," says a French writer in his definition of Prud'hommes. The bill has already passed the Chamber of Deputies, and Senator Jean Macé, who is not unknown to American readers by his once popular "History of a Mouthful of Bread," who carried through the Senate the Tribunal of Commerce Bill, informs me that he means to father this new project also.

Many writers of reputation go farther than the politicians in this matter of woman suffrage. About a decade ago M. Alexander Dumas, while in an optimistic mood, declared in a spirited pamphlet that French women would vote within ten years. The late M. Rodière, the distinguished Professor of the Toulouse Law School, came out squarely for woman suffrage in his "Great Jurisconsults," published in 1874. Several similar examples might be cited.

During this same period the professional reformers have been many and zealous. Two of these cannot be passed over in this *résumé* of the history of the Woman Movement in France. M. Léon Richer, now breaking down under ill health and years, has done good work among the more moderate advocates of the cause, while Mme. Maria Deraismes, one of the most eloquent female orators France has ever produced and who, I regret to say, died this past winter, was the standard-bearer of the more radical element.

Three International Woman's Rights Congresses held in Paris since 1878 were due chiefly to the initiative of these two persons. The one which occurred during the World's Fair of 1878 brought together many reformers from all parts of the globe, but the question of political rights was kept rather in the background. During the Exhibition of 1889 there were two of these congresses. The first, under the presidency of Mme. Deraismes, was more radical than the second, which, recognised by the French Government and included in its list of official congresses, was presided over by Senator Jules Simon, while, at the close, the members were given an evening reception by M. Yues Guyot, then a Minister, the first time in the history of France that such governmental honors were bestowed on the advocates of woman's rights.

The important International Council of Women held in Washington in 1888 and the Woman's Congress at Chicago last summer, at both of which the suffrage debates overshadowed every other topic, produced a

deep impression among the leaders of the movement in Paris, who were represented at Washington and Chicago by Mme. Isabelle Bogelot. On her return from America, Mme. Bogelot, on both occasions, presented enthusiastic reports of all that she had seen and heard at these gatherings. The fact that this energetic lady was made a member of the Legion of Honor last April by the French Government—a distinction very rarely bestowed upon women—has given a sort of official stamp to her mission and increased weight to her utterances.

When Mrs. Potter Palmer arrived in Paris in the summer of 1892, bent on securing the official participation of France in the Woman's Department of the Chicago Exhibition, she found that the fame of the Washington Council of 1888, spread by Mme. Bogelot, had prepared the way for her. So Mme. Carnot placed herself at the head of the French Woman's Committee and had associated with her several ladies who were pronounced advocates of woman suffrage.

It is evident that French public opinion is being slowly prepared to accept the political rights of women, though the day when complete woman suffrage will be introduced into France is still far distant. But during the past twenty years great progress has unquestionably been made in that direction. Two or three instances of this have been given already. To them may be added the creation by Parliament in 1878 of a State system of high school education for girls, due to the persistent labor of M. Camille Sée ;[1] the reestablishment of divorce, brought about by M. Naquet in 1884 ;[2] the law authorising workingwomen to deposit their earnings in the postal savings banks without the consent of their husband, a derogation, it should be noted, of the code which is so oppressive to married women ; the recent employment of female clerks in several State administrations ; the new custom adopted by the great railroad companies of assuring positions to the widows and orphan daughters of faithful male employees; the introduction into the platform of the Workingmen's Party, which is gaining such a strong foothold in the Chamber of Deputies, of "planks" demanding for women "equal pay for equal work" and their complete political emancipation, measures adopted only after a hard struggle at several workingmen's congresses ; and the increasing number of French women who frequent the universities and win degrees.

Thus, there is a healthy and growing tendency in France to avoid extremes in the advocacy of woman's emancipation. The namby-pambiness of Diderot, who says "when woman is the theme, the pen must be dipped in the rainbow and the pages dried with the dust of the butterfly's wings," is rapidly disappearing, along with its antipode, the "vile-wretch-man" spirit. Horace's "golden mean" is rapidly becoming the rule, —"the presage of victory," to quote Milton's words.

[1] Described more at length by me in the *Century Magazine* last October.

[2] See "Divorce in France." by M. Alfred Naquet, the Deputy, in the *North American Review*, Dec., 1892.

THE CIRCLE SQUARER.

[CONCLUDED.]

The Progressive Thinkers' Club met at the home of Mr. Whyte, and Mr. Gorner made his appearance half an hour before the lecture was to begin. He was received with great cordiality by Mr. and Mrs. Whyte. Soon afterwards Dr. Richard Werner made his appearance, a young man and a tutor at one of our Western universities, who had just returned from a trip abroad, where he had visited the universities of England and Germany. He was introduced to Mr. Gorner as a cousin of Mrs. Whyte, and Mr. Whyte added: "Our cousin is a very promising youth, who will soon be professor and make his mark in the world. He is not a member of our club, but a guest only."

Mr. Gorner began a conversation with Dr. Werner and was at first quite taken with him. The Doctor had a student-like frankness, and his discourse was full of humor. Having talked much of the Old World, and mentioned its good and its humorous sides, he asked: "What, pray, is to be the subject of your lecture to-night?"

"I shall explain the problem of the squaring of the circle," said Mr. Gorner, gravely; "but understand me aright: I am not one of the vulgar crowd of circle-squarers who in their imperturbable vanity believe that the problem has been settled. No, I am not one of them. I propose to attack the problem in a strictly scientific manner."

This remark was aimed at the professional mathematicians, but Dr. Werner misunderstood the meaning of Mr. Gorner's words. Taking for granted that what Mr. Gorner called "strictly scientific" was what he himself would give that name to, he rejoined sarcastically: "I am sorry for you, for you are throwing your pearls before swine. You will soon find out that this club of advanced thinkers is a society of erratic minds. You know, birds of a feather flock together. There is no one among the members of your audience to-night who is not slightly unhinged. There is, for instance, Mrs. Hilman, the fantastical lady who just entered; she believes in astrology. The lady who follows her is her friend Mrs. Holborn, the spiritualist. My cousin, Mr. Whyte, is full of eccentricities, and so are all his friends. Mr. Single studies Volapük. You will hear him to-night, for I am sure he will recite us a poem in the world-language, which is nowhere spoken or understood. Mr. Bemmel is a social reformer; he calls himself an ideal communist, and expounded na-

tionalism long before Mr. Bellamy published his novel, 'Looking Backwards.' Mr. Hamlin is an Englishman who has made himself ridiculous at home, and has crossed the ocean to do the same in America."

"I am sorry," said Mr. Gorner, "that I have accepted Mr. Whyte's invitation. I was under the impression that I should meet here the flower of scientific thinkers."

The Doctor laughed so loudly at this that he attracted the attention of the guests, who in the meantime had filled the parlor. "The flower of scientific thinkers?" he repeated, interrogatively. "Rather say subjects for an alienist. I am a student of psychology, and I take great interest in abnormal specimens of mankind. That is the reason I am here. I take pleasure in listening to the rampant talk of lunatics and circle-squarers, because I study them."

Here the conversation was interrupted, and Mr. Whyte called the meeting to order. He introduced Mr. Gorner as the speaker of the evening, greeting him with courteous words, due to a man of high distinction and extraordinary accomplishments.

Mr. Gorner, still under the influence of Dr. Werner's information concerning the character of the club, began his lecture, not without a certain diffidence; but when he began to denounce the arrogance of professional mathematicians, he was heartily applauded and he waxed warm; he became more and more eloquent in explaining his solution and dwelling on the importance of the rationality of the number π. "The area of any circle," he said, "is found by dividing the circumference of the circle into four equal parts: the square erected on one such part being equal to the area of the circle. The ordinary method of finding the square of a circle involves us in the gross absurdity of teaching the less as equalling the greater. Our professors of mathematics teach that the area of a circle is about one-fourth larger than that of its real square. But mathematical methods are rigid; they cannot be stretched like India rubber bands, and they possess no such property as elasticity."

In order to remove the last doubt in the minds of his audience, Mr. Gorner presented the contrast of the two methods of computing the areas of circles in a table, which he wrote down on a blackboard, saying: "If the circumference of a given circle be 4, each quadrant being equal to 1, the diameter of the same is 1·2732, and the area, according to my solution, 1; but according to the rule in use it would be equal to 1.2732. This is 0·2732 too much. Yet such is the perversity of professional mathematicians that they say, $1 = 1{\cdot}2732$. If the circumference be 8, the area of a square on a quadrant is 4; yet mathematicians claim it is 5·0928. Is not this the most stupendous fraud ever committed against sound reasoning? Yet the world has patiently submitted to it, because people have an outrageous confidence in established authority."

The applause of the audience was tremendous, and Mr. Gorner felt himself richly recompensed for the martyrdom he had so long endured in the cause of truth. He ended his lecture by briefly alluding to the important questions which physics, chemistry, astronomy, and all the other sciences could derive from a sound solution of the bottom problem of existence. He ended with the enthusiastic words: "Here, at last, we have found a basis on which to establish a true and consistent theodicy."

The success of the evening was greater than Mr. Gorner could have anticipated. The audience was delighted, and there was no one who did not congratulate the speaker. His eyes beamed with joy, for he knew now that the old theory of π was dead and discarded, while his own solution had been adopted by the most progressive thinkers of the world. How narrow-minded and unkind was the judgment of Dr. Werner, and how sympathetically had these distinguished men and women accepted the truth!

When the first excitement began to subside, Mr. Whyte's gavel restored order, and a discussion of the lecture ensued. There was no speaker who did not express his unbounded admiration for Mr. Gorner's admirably clear exposition of the subject. Each one began with a bow to the lecturer saying a few polite things about the profundity of his researches and the world-wide fame of the learned mathematician, only to drift as quickly as possible into his own line of thought. Mr. Bemmel preached nationalism as the true ratio of the social forces, and Mrs. Hilman expounded astrology, saying that the spheres of the planets had been squared by the Almighty from eternity. No one understood what she meant, but all were deeply impressed with her words. Mr. Single promised to translate Mr. Gorner's work into Volapük, and Mrs. Holborn assured the audience that several years ago she had received unmistakable intelligence from the spirit world that the time would come and was near at hand when the circle would be squared. "The future," she said with the voice of a prophet, "has still many stupendous surprises in store for us. We have seen great things. We have witnessed the invention of railroads, of electricity, of the telegraph, and of many more marvels of modern science. To-day we have learned that the deepest problem of mathematics has been solved. The circle has been squared. I myself am engaged in new inventions which will render the work of scholars, editors, and authors comparatively easy. In the Crystal-Gazing Club we discovered of late by a happy incident, that when two or several persons look into the same glass one can read in it the ideas of the others. We are now at work to

establish the conditions under which the phenomenon takes place, and as soon as we have succeeded, we shall duly publish the accounts in the *Spirit World* and other organs of spiritualism. The writers of the future will simply think the novels which they wish to write, gazing intently at a sheet of white paper hung up before them on the wall. The white paper will then be sent to the printers who, after some instruction in the deciphering of spiritual impressions, will be able to read the mental writing and at once set it in type. Shorthand and typewriter will be no longer needed and an enormous amount of labor saved." Mrs. Holborn alluded to some other inventions, such as a sieve of truth, which would retain in its meshes the erroneous elements of utterances spoken into it but would allow correct statements to pass through it without difficulty. A gentleman friend, of the patent office at Washington, an unequivocal authority on all patent affairs, had assured her that the invention was patentable.

Dr. Werner was also urged to make his comments, but he refused to speak. However, when Mr. Whyte, the President of the Club, declared that his learned cousin had also succeeded in squaring the circle, and that he had invented an instrument to accomplish the squaring of the circle, Dr. Werner rose to make a few comments. He said: "I do not claim to be a circle-squarer like our distinguished friend Mr. Gorner. As my cousin alludes to an invention of mine by which the circle can be squared, allow me to make the following explanation. I side with the professional mathematicians and believe that the ratio of π cannot be expressed in whole numbers, be they ever so large. Mr. Gorner has not won me over, for his arguments rest on the assumption, disproved by elementary geometry, that the area of a circle is equal to the area of a square of the same perimeter. But while I still adhere to the old view I wish to say that when mathematicians speak of the impossibility of squaring the circle they simply mean that the feat cannot be accomplished by ruler and compasses. But while a geometrical construction of the square of the circle by these two instruments is impossible, it is easy enough to do it with other instruments. The area of the circle is $r^2 \pi$, which is easily proved. Accordingly, we have simply to unroll the circumference of a circle and find a mean proportional between half of it and the radius. To accomplish the unrolling of the circumference of a circle, I have constructed a little wheel, the diameter of which is two inches. In the circumference the point of a needle is inserted so as to make a mark when the wheel rolls over the paper. Now take a circle of a diameter of two inches and place a ruler so that it just touches the circle. Then turn the wheel till the needle stands at the point where the ruler and circle touch, and roll it along until it makes another impression. The two marks enclose a line exactly equal to the circumference of the wheel or of a circle having a diameter of two inches. The mean proportional between half this line and the radius, is the required side of a square whose area is equal to the area of the circle. In giving this solution, I do not claim to have geometrically squared the circle, for I have employed an instrument not recognised by geometricians. On the one hand I am fully conscious of the truth that the numerical value of π can only be approximately ascertained. It has been computed more fully and accurately than will ever be needed and I can assure Mr. Gorner that we need not worry about the irrationality of π, for the universe is as grand and harmonious for all that."

Mr. Whyte concluded the discussion by requesting the lecturer to reply to his critics. Mr. Gorner was too full of happiness to express anything but thanks to the audience for their kind appreciation. As to the remarks of Dr. Werner, he said, that a close consideration of his objection would very clearly bring out the error of professional mathematics and prove the correctness of his own solution. "For," he continued, "unroll the circumference of the circle and divide it into four equal parts. These four parts are equal to the four quadrants and a square constructed of them is equal to the area of the circle."

"A hopeless case!" murmured Dr. Werner.

The evening on which Mr. Gorner delivered his lecture before the Club of Progressive Thinkers was perhaps the happiest hour of this martyr of his own thought. He had grown in confidence, and at once pushed the publication of his booklet. It appeared, and he advertised it in the papers; but it was of no use; he found no buyers. He sent it out to professors and students of mathematics, but received no reply. He travelled long distances to see influential men, but could never convince one. He spent much money and wasted his health until he became weary, and, suffering from severe headaches, found himself obliged to retire to the summer resort of a famous physician, which had been strongly recommended to him by his friends. There he broke down completely, and fell a prey to a severe brain fever. He recovered, but was no longer the same strong, energetic man. His ambition had been to accomplish a great work for mankind, to take a foremost place in the ranks of the world's original thinkers, and to shine forth above all others by identifying himself with the greatest discovery of the age. But the original idea on which he had staked his life found no recognition, and with it he felt his very self rejected. He had concentrated upon it all his energies, had devoted to it all his love and enthusiasm, had spent on it a great part of his fortune, but all was vain. All his hopes had been

disappointed, his life had turned out dreary, and old age overtook him like a chilly November day. But while usually every autumn brings the returns of a rich harvest, his mind was empty like one whose fruits had been destroyed by hail-storms.

The physician of the institution in which he lay visited him regularly and encouraged his patient with kind words. "Take heart again," he said, "you will soon be better. The sole cause of your trouble is nervous prostration, and I hope, if you only promise to be cheerful, to restore you to your old vigor and health."

"No, Doctor," said Mr. Gorner, "there is no herb that can cure my ailments; my life is blighted, and unless I can bring out my discoveries, which are so important for the world, I shall never be cured of my nervous prostration."

"Do not speak of your discoveries, Mr. Gorner; forget them for a while; do not think of them for a whole year, until you have recovered your health. Try to think of them as an aberration, and begin a new life with other ambitions and with new aims."

Mr. Gorner shook his head: "No, Doctor! No, and No again. My discoveries are my own original ideas. They are my life-work; they are myself. To give them up would mean to give up my own soul. Do not speak thus to me again. I know, Doctor, you think like the rest of the world; you think they are aberrations, and treat me—Oh! such is my terrible fate! How have I deserved this tragic end? You treat me—as a lunatic. Your institute, I have known it long ago, is an asylum for nervous diseases. You have been kind to me, very kind, but it is humiliating, it is heart-breaking," and Mr. Gorner began to sob like a child.

The Doctor laid his hand on his patient's forehead. "Be strong, sir," he said, "be strong, and you will be cured."

Mr. Gorner continued sobbingly: "You try to cure me, but you cannot, you cannot. I am incurable. Do not tell me to forget my discoveries, for I cannot forget them—I will not forget them; nor tell me that I am mistaken, for the day on which I became convinced that my whole life had been a huge blunder, I should become mad; it would kill me; I should commit suicide. Do not tell me that I am mistaken; I could not stand it."

"Be composed, Mr. Gorner," replied the Doctor. "I am no mathematician and do not understand your discovery. But I take it for granted that while part of your ideas may be wrong, part of them will be true. And if nothing of them were true, I have observed that your heart is full of devotion to the truth, that is, to what you conceive to be the truth. You have suffered much, and you will be comforted again. Think of the fate of all martyrs, think of Christ, how full of despair was his heart in the hour of tribulation, and He who so confidently proclaimed the great mystery of his Sonship felt himself desolate and forsaken by God and men in the agony of death. Let go the conceit of your discoveries, and rest in the confidence that whatever be the truth, the truth is best for us and for the world."

"Doctor," replied Mr. Gorner, "you do not know my heart. My conceit is not based on vanity. I am not anxious for glory, nor do I care to make my name immortal. I have searched my heart and purified my ambition of all egotism, and am willing to be forgotten, if but my idea conquer. But to give up the idea itself,—no, Doctor, I cannot do it. Rather die than that. To give up my discovery, that would leave my life desolate; it would be an utter annihilation."

Mrs. Gorner visited her husband from time to time, but the hope for his recovery was but slight. Being aware himself of his critical condition, he made his will, leaving twenty thousand dollars to his wife, ten thousand to his child, a little girl of about ten years, and fifty thousand for the propaganda of his discoveries. The poor man did not know that his fortune, which once amounted to almost one hundred thousand dollars, had shrunk to about twenty-five thousand, or even less.

Soon after he made his will, he no longer recognised either the Doctor or his wife. For three years he lay in a kind of stupor, indifferent toward all the world. A softening of the brain had set in, and he died at last peacefully, without agony or pain.

When his will was opened, it was found to contain the following confession:

"My aspirations flew higher than my strength would allow, and involved me in endless sufferings. My life was a constant sacrifice to the truth, yet the truth which I pursued was a shadow. I dared to be myself, such as I chose to be, but experience has taught me that God does not allow me to be myself. I am resigned and long for peace."

P. C

A LETTER FROM NEW ZEALAND.

We publish below some passages of interest from a letter received by a reader of *The Open Court* from a brother living in New Zealand. The passages relate to the new law which cancels all restrictions of citizenship, and gives the ballot to all persons without discrimination, male and female, that are above the age of twenty-one:

"What do you think of our last attempt at law-making? We have granted universal suffrage, that is, all males or females over the age of twenty-one are now entitled to be enrolled as intelligent electors, no matter what stake they have in the country so long as they are not resident in one of the colony's free lodging houses, that is the jail. But even such, immediately after they depart from their enforced quarters are as legally entitled to be considered electors as any free individual. Worst of all the people who are resident in our old people's home, or what is termed in the old

country as poorhouses, have equal rights with the best in the colony. This is real democracy, the suffering rate-payer must be taxed to keep these people, and then they are placed on an equal footing with their benefactors so far as political power is concerned; what more could democracy do? Even your boasted freedom cannot go so far as that. Then there are Relief Works all over the colony; single and married alike are put on these if supposed to be unable to procure work, but really the purpose is different. You see, we have our faults also in our government which require to be and are promptly exposed. Under an unscrupulous Government they are shifted at election time into districts where their party is weak, enrolled and made to vote at that party's will; and they do it knowing that if their candidate is not returned then their tenure of work is short.

We had such experience at the general election three months ago. It was well known that our member was one of the ablest politicians in the House and would let nothing wrong happen. He stood up nobly and denounced such trickery. This was too much for our *very* radical democracy. What did they do? They shipped down from other parts of the country to this district all sorts of people, about two hundred in number, and put them on relief works with the command to return their candidate. Our candidate must be ousted at any cost. And to our great regret the man who was an ornament to the country had to take defeat.

Of course the wives followed their husbands, and we, who were permanent residents, must put up for a time with their selection. And these slaves to democracy will again, as occasion suits, be shifted for a like purpose!

I am sorry to say, it is by such a party we are at present governed. Of course things might have been altered had those who really had some stake in the country rolled up to vote with their wives and families, but failing to calculate upon the radical change which had taken place on the granting of female franchise, a listlessness was apparent, and then those who were working for their ends caught at the opportunity and rolled up with their cousins and their aunts to the surprise of all and for such we have to suffer now for a time.

It serves us right. I do not believe in female franchise, nor does my wife. Yet when granted we took advantage of it, and had all done likewise, we should have carried the day. Woman has a place in society, where she shines and becomes beloved by all, but once put on a political level with man she loses her place and power over her male partner, and I can only hope that the franchise will again be relegated to the shades of oblivion.

Wonderful to relate, in granting such concessions to woman, these pliant politicians, fearful that she might attempt to usurp their places, which means £240 per annum, payable monthly, they considerately inserted a clause, making her ineligible as a representative. Why, when they had such respect for her voting-power, did they not give her the opportunity of attaining to such exalted positions as representatives? I verily believe, had such been made the law, that several women would have gone up as a burlesque on our very indulgent powers that be.

Next month (March) we will have another election tussle. This time it will be the licensing elections under altered conditions. Previously the rate-payers in each district elected their committees to control the licensing in their respective districts, but now, it is to be carried out on the same lines as a parliamentary election, that is, every one having the right to vote who has placed his or her name on the roll, irrespective of being rate-payers."

BOOK NOTICES.

Comparatively few people are aware that in the Annual Report of the Smithsonian Institution a General Appendix is printed which furnishes brief accounts of important scientific discoveries, reports of investigations made by collaborators of the Institution, memoirs of its members on special scientific topics, and selected scientific essays from foreign journals and proceedings. Appended to these articles also are full bibliographies which can scarcely be obtained elsewhere. We have just received the annual report for 1891. The following is a list of the general scientific articles which it presents: "Celestial Spectroscopy," by William Huggins; "Stellar Numbers and Distances," by A. M. Clerke; "The Sun's Motion in Space," by A. M. Clerke; "A Southern Observatory," by A. M. Clerke; "Applications of Physics and Mathematics to Geology," by C. Chree; "Origin of the Rock-pressure of Natural Gas," by Edward Orton; "Geysers," by Walter Harvey Weed; "The General Circulation of the Atmosphere," by Werner von Siemens; "The Gulf Stream," by Alexander Agassiz; "Absolute Measurement of Hardness," by F. Auerbach; "The Flow of Solids," by William Hallock; "The Scientific Work of G. S. Ohm," by E. Lommel; "Autobiographical Sketch of J. von Liebig"; "Divergent Evolution Through Cumulative Segregation," by J. T. Gulick; "The Struggle for Life in the Forest," by James Rodway; "Difficulties of Aquatic Insects," by L. C. Miall; "Geographic Distribution of Mammals," by C. Hart Merriam; "The Corbin Game Park," by John R. Spears; "The Home of the Troglodytes," by E. T. Hamy; "Summary of Progress in Anthropology in 1891," by O. T. Mason; "The Mounds of the Mississippi Valley," by Lucien Carr; "The Use of Flint Blades to Work Pine Wood," by G. V. Smith; "Time-keeping Among the Chinese," by D. J. Magowan; "Navajo Dye-stuffs," by Washington Matthews; "Some Possibilities of Economic Botany," by George L. Goodale; "The Evolution of Commerce," by Gardner Hubbard; "The Relation of Natural Science to Art," by E. du Bois-Reymond.

MONISM.

BY HORACE P. BIDDLE.

The universe and time, diurnity;
Infinity and space, eternity;
Truth, indestructible and uncreated,
Eternal, infinite, and unrelated—
These constitute, with God, the One, the whole,
Of which God is the universal soul—
The omnipresent, and the All omniscient,
Omnipotent, supreme, and ever prescient,
Throughout eternity, infinity—
The only God, and sole divinity.

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GOETHE'S RHAPSODY ON NATURE.[1]

(About the year 1780.)

TRANSLATED BY ΞΡΣ.

Nature ! We are by her surrounded and encompassed—unable to step out of her and unable to enter deeper into her. Unsolicited and unwarned, she receives us into the circuit of her dance, and hurries along with us, till we are exhausted and drop out of her arms.

She creates ever new forms ; what now is was never before ; what was, comes not again—all is new, and yet always the old.

We live in her midst, and are strangers to her. She speaks with us incessantly, and betrays not her mystery to us. We affect her constantly, and yet have no power over her.

She seems to have contrived everything for individuality, but cares nothing for individuals. She builds ever and destroys ever, and her workshop is inaccessible.

She lives in children alone ; and the mother, where is she ? She is the only artist : from the simplest subject to the greatest contrasts ; without apparent effort to the greatest perfection, to the precisest exactness—always covered with something gentle. Every one of her works has a being of its own, every one of her phenomena has the most isolated idea, and yet they all make one.

She acts a play on the stage : whether she sees it herself we know not, and yet she plays it for us who stand in the corner.

There is an eternal living, becoming, and moving in her, and yet she proceeds not farther. She transforms herself forever, and there is no moment of standing still in her. Of remaining in a spot she does not think, and she attaches her curse upon standing still. She is firm ; her step is measured, her exceptions rare, her laws unalterable.

She has thought, and is constantly meditating ; not as a man, but as nature. She has an all-embracing mind of her own, and no one can penetrate it.

[1] The readers of *The Open Court* are indebted for the publication of Goethe's rhapsody on Nature to Mr. T. B. Wakeman, who has called the Editor's attention to this gem of philosophic poetry.

Men are all in her, and she is in all. With all she carries on a friendly game, and rejoices the more they win from her. She plays it with many so secretly, that she plays it to the end ere they know it.

The most unnatural is also nature ; *even the stupidest Philistinism hath something of her genius.* Who sees her not everywhere, sees her nowhere aright.

She loves herself, and clings ever, with eyes and hearts without number to herself. She has divided herself in pieces in order to enjoy herself. Ever she lets new enjoyers grow, insatiable to impart herself.

She delights in illusion. Whoever destroys this in himself and others, him she punishes as the strictest tyrant. Whoever trustfully follows her, him she presses like a child to her heart.

Her children are without number. To no one is she altogether niggardly, but she has favorites upon whom she squanders much, and to whom she sacrifices much. To greatness she has pledged her protection.

She flings forth her creatures out of nothing, and tells them not whence they come, nor whither they are going. Let them only run ; *she* knows the way.

She has few springs, but those are never worn out, always active, always manifold.

Her play is ever new, because she ever creates new spectators. Life is her finest invention, and death is her artifice to get more life.

She veils man in darkness, and spurs him continually to the light. She makes him dependent on the earth, dull and heavy, and keeps rousing him afresh.

She gives wants, because she loves motion. The wonder is that she accomplishes all this motion with so little. Every want is a benefit ; quickly satisfied, quickly growing again. If she gives one more, it is a new source of pleasure ; but she soon comes into equilibrium.

She sets out every moment for the longest race, and is every moment at the goal.

She is vanity itself, but not for us, to whom she has made herself of the greatest weight.

She lets every child tinker upon her, every fool pass judgment on her, thousands stumble over her and see nothing ; and she has her joy in all, and she finds in all her account.

Man obeys her laws, even when he strives against

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them; he works *with* her even when he would work *against* her.

She makes of all she gives a blessing, for she first makes it indispensable. She lags, that we may long for her; she hastens, that we may not grow weary of her.

She has no speech nor language; but she creates tongues and hearts through which she feels and speaks.

Her crown is love. Only through it can one come near her. She creates gaps between all beings, and is always ready to engulf all. She has isolated all, to draw all together. By a few draughts from the cup of love she makes up for a life full of trouble.

She is all. She rewards herself and punishes herself, delights and torments herself. She is rude and gentle, lovely and terrible, powerless and almighty.

All is always *now* in her. Past and future knows she not. The present is her eternity.

She is kindly. I praise her with all her works. She is wise and quiet. One can tear no explanation from her, extort from her no gift, which she gives not of her own free will. She is cunning, but for a good end, and it is best not to observe her cunning.

She is whole, and yet ever uncompleted. As she plies it, she can always ply it.

To every one she appears in a form of her own. She hides herself in a thousand names and terms, and is always the same.

She has placed me here, she will lead me away. I trust myself to her. She may manage it with me. She will not hate her work. It is not I who spake of her. No, both the true as well as the false, she has spoken it all. All the guilt is hers, all the merit hers.

ON THE CAUSES OF HARMONY.

A POPULAR SCIENTIFIC LECTURE.[1]

BY PROF. ERNST MACH.

We are to speak to-day of a theme which is perhaps of somewhat more general interest—*the causes of the harmony of musical sounds*. The first and simplest experiences relative to harmony are very ancient. Not so the explanation of its laws. These were first supplied by the investigators of a recent epoch. Allow me an historical retrospect.

Pythagoras (586 B. C.) knew that the note yielded by a string of steady tension was converted into its octave when the length of the string was reduced one-half, and into its fifth when reduced two-thirds; and that then the first fundamental tone was consonant with the two others. He knew generally that the same string under fixed tension gives consonant tones when successively divided into lengths that are in the proportions of the simplest natural numbers; that is, in the proportions of 1:2, 2:3, 3:4, 4:5.

[1] Graz, 1865. Translated by μκρκ.

Pythagoras failed to reveal the causes of these laws. What have consonant tones to do with the simple natural numbers? That is the question we should ask to-day. But this circumstance must have appeared less strange than inexplicable to Pythagoras. This philosopher sought for the causes of harmony in the occult, miraculous powers of numbers. His procedure was largely the cause of the upgrowth of a numerical mysticism, of which the traces may still be detected in our oneirocritical books, and with some scientists, to whom marvels are more attractive than lucidity.

Euclid (300 B. C.) gives a definition of consonance and dissonance that could hardly be improved upon, in point of verbal accuracy. The consonance (συμφωνία) of two tones, he says, is the mixture, the blending (κρᾶσις) of those two tones; dissonance (διαφωνία), on the other hand, is the incapacity of the tones to blend (ἀμιξία), whereby they are made harsh for the ear. The person who knows the correct explanation of the phenomenon hears it, so to speak, reverberated in these words of Euclid. Still, Euclid did not know the true cause of harmony. He had unwittingly come very near to the truth, but without really grasping it.

Leibnitz (1646–1716 A. D.) resumed the question which his predecessors had left unsolved. He, of course, knew that musical notes were produced by vibrations, that twice as many vibrations corresponded to the octave as to the fundamental tone, etc. A passionate lover of mathematics, he sought for the cause of harmony in the secret computation and comparison of the simple numbers of vibrations and in the secret satisfaction of the soul at this occupation. But how, we ask, if one does not know that musical notes are vibrations? The computation and the satisfaction at the computation must indeed be pretty secret if it is unknown. What queer ideas philosophers have! Could anything more wearisome be imagined than computation as a principle of æsthetics? Yes, you are not utterly wrong in your conjecture, yet you may be sure that Leibnitz's theory is not wholly nonsense, although it is difficult to make out precisely what he meant by his secret computation.

The great Euler (1707–1783) sought the cause of harmony, almost as Leibnitz did, in the pleasure which the soul derives from the contemplation of order in the numbers of the vibrations.[1]

Rameau and D'Alembert (1717–1783) approached nearer to the truth. They knew that in every sound available in music besides the fundamental note also the twelfth and the next higher third could be heard; and further that the resemblance between a fundamen-

[1] Sauveur also set out from Leibnitz's idea, but arrived by independent researches at a different theory, which was very near to that of Helmholtz. Compare on this point Sauveur, *Mémoires de l'Academie des Sciences*, Paris, 1700–1705, and R. Smith, *Harmonics*, Cambridge, 1749.

tal tone and its octave was always exceptionally marked. Accordingly, the combination of the octave, fifth, third, etc., with the fundamental tone appeared to them "natural." They possessed, we must admit, the correct point of view; but with the simple naturalness of a phenomenon no inquirer can rest content; for it is precisely this naturalness for which he seeks his explanations.

Rameau's remark dragged along through the whole modern period, yet without leading to the full discovery of the truth. Marx places it at the head of his theory of composition, but makes no further application of it. Also Goethe and Zelter in their correspondence were, so to speak, on the brink of the truth. Zelter knew of Rameau's view. Finally, you will be appalled at the difficulty of the problem, when I tell you that till very recent times even professors of physics preserved silence when asked for the causes of harmony.

Not till quite recently did Helmholtz find the solution of the question. But to make this solution clear to you I must first speak of some experimental principles of physics and psychology.

1) In every process of perception, in every observation, the attention plays a highly important part. We need not look about us long for proofs of this. You receive, for example, a letter written in a very poor hand. Do your best, you cannot make it out. You put together now these, now those lines, yet you cannot construct from them a single intelligible character. Not until you direct your attention to groups of lines which really belong together, is the reading of the letter possible. Manuscripts, the letters of which are formed of minute figures and scrolls can only be read at a considerable distance, where the attention is no longer diverted from the significant outlines to the details. A beautiful example of this class is furnished by the famous iconographs of Giuseppe Arcimboldo in the basement of the Belvedere gallery at Vienna. These are symbolic representations of water, fire, etc.: human heads composed of aquatic animals and of combustibles. At a short distance one sees only the details, at a greater distance only the whole figure. Yet a point can be easily found at which, by a simple voluntary movement of the attention, there is no difficulty in seeing now the whole figure and now the smaller forms of which it is composed. A picture is often seen representing the tomb of Napoleon. The tomb is surrounded by dark trees between which the bright heavens are visible as background. One can look a long time at this picture without noticing anything except the trees, but suddenly, on the attention being accidentally directed to the bright background, one sees the figure of Napoleon between the trees. This case shows us most distinctly the important part which attention plays. The same sensuous object can, solely by the interposition of attention, give rise to wholly different perceptions.

If I strike a harmony, or chord, on this piano, by a mere effort of attention you can fix every tone of that harmony. You then hear most distinctly the fixed tone, and all the rest appear as a mere addition, altering only the quality, or acoustic color, of the primary tone. The effect of the same harmony is essentially modified if we direct our attention to different tones.

Strike in succession two harmonies, for example, the two represented in the annexed diagram, and first fix by the attention the upper note *e*, afterwards the base *e—a*; in the two cases you will hear the same sequence of harmonies differently. In the first case, you have the impression as if the fixed tone remained unchanged and simply altered its *timbre*; in the second case, the whole acoustic agglomeration seems to fall sensibly in depth. There is an art of composition to guide the attention of the hearer. But there is also an art of hearing, which is not the gift of every person.

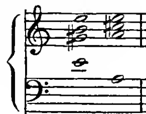

Fig. 1.

The piano-player knows the remarkable effects obtained when one of the keys of a chord that is struck is let loose. Bar 1 played on the piano sounds almost like bar 2. The note which lies next to the key let loose resounds after its release as if it were freshly struck. The attention no longer occupied with the upper note is by that very fact insensibly led to the upper note.

Fig. 2.

Any tolerably cultivated musical ear can perform the resolution of a harmony into its component parts. By much practice we can go even further. Then, every musical sound heretofore regarded as simple can be resolved into a subordinate succession of musical tones. For example, if I strike on the piano the note 1, (annexed diagram,) we shall hear, if we make the requisite effort of attention, besides the loud fundamental note the feebler, higher overtones, or harmonics, 2 . . . . 7, that is, the octave, the twelfth, the double octave, and the third, the fifth, and the seventh of the double octave.

Fig. 3.

The same is true of every musically available sound. Each yields, with varying degrees of intensity, besides its fundamental note, also the octave, the

twelfth, the double octave, etc. The phenomenon is observable with special facility on the open and closed flue-pipes of organs. According, now, as certain overtones are more or less distinctly emphasised in a sound, the *timbre* of the sound changes—that peculiar quality of the sound by which we distinguish the music of the piano from that of the violin, the clarinet, etc.

On the piano these overtones may be rendered very easily audible. If I strike, for example, sharply note 1 of the foregoing series, whilst I simply hold one after another the keys 2, 3, ... 7, the notes 2, 3, ... 7 will continue to sound after the striking of 1, because the strings corresponding to these notes, now freed from their dampers, are thrown into sympathetic vibration.

As you know, this sympathetic vibration of the like-pitched strings with the overtones is really not to be conceived as sympathy, but rather as lifeless mechanical necessity. We must not think of this sympathetic vibration as an ingenious journalist pictured it, who tells a gruesome story of Beethoven's F minor sonata, Op. 2, that I cannot withhold from you. "At the last London Industrial Exhibition nineteen virtuosos played the F minor sonata on the same piano. When the twentieth stepped up to the instrument to play by way of variation the same production, to the terror of all present the piano began to render the sonata of its own accord. The Archbishop of Canterbury, who happened to be present, was set to work and forthwith expelled the F minor devil."

Although, now, the overtones or harmonics which we have discussed are heard only upon a special effort of the attention, nevertheless they play a highly important part in the formation of musical *timbre*, as also in the production of the consonance and dissonance of sounds. This may strike you as singular. How can a thing which is heard only under exceptional circumstances be of importance generally for audition?

But consider some familiar incidents of your everyday life. Think of how many things you see which you do not notice, which never strike your attention until they are missing. A friend calls upon you; you cannot understand why he looks so changed. Not until you make a close examination do you discover that his hair has been cut. It is not difficult to tell the publisher of a work from its letter-press, and yet no one can state precisely the points by which this style of type is so strikingly different from that style. I have often recognised a book which I was in search of from a simple piece of unprinted white paper that peeped out from underneath the heap of books covering it, and yet I had never carefully examined the paper, nor could I have stated its difference from other papers.

What we must remember, therefore, is that every sound that is musically available yields, besides its fundamental note, its octave, its twelfth, its double octave, etc., as overtones or harmonics, and that these are important for the agreeable combination of several musical sounds.

2) One other fact still remains to be dealt with. Look at this tuning-fork. It yields, when struck, a perfectly smooth tone. But if you strike in company with it a second fork which is of slightly different pitch, and which alone also gives a perfectly smooth tone, you will hear, if you set both forks on the table, or hold both before your ear, a uniform tone no longer, but a number of shocks of tones. The rapidity of the shocks increases with the difference of the pitch of the forks. These shocks, which become very disagreeable for the ear when they amount to thirty-three in a second, are called "beats."

Always, when one of two like musical sounds is thrown out of unison with the other, beats arise. Their number increases with the divergence from unison, and simultaneously they grow more unpleasant. Their roughness reaches its maximum at about thirty-three beats in a second. On a still further departure from unison, and a consequent increase of the number of beats, the unpleasant effect is diminished, so that tones which are widely apart in pitch no longer produce offensive beats.

To give yourselves a clear idea of the production of beats, take two metronomes and set them almost alike. You can, for that matter, set the two exactly alike. You need not fear that they will strike alike. The metronomes usually for sale in the shops are poor enough to yield, when set alike, appreciably unequal strokes. Set, now, these two metronomes, which strike at unequal intervals, in motion; you will readily see that their strokes alternately coincide and fall out with each other. The alternation is quicker the greater the difference of time of the two metronomes.

If metronomes are not to be had, the experiment can be performed with two watches.

Beats arise just in this way. The rhythmical shocks of two sounding bodies, of unequal pitch, sometimes coincide, sometimes interfere, whereby they alternately augment and enfeeble each other's effects. Hence the shock-like, unpleasant swelling of the tone.

Now that we have made ourselves acquainted with overtones and beats, we may proceed to the answer of our main question, Why do certain relations of pitch produce pleasant sounds, consonances, others unpleasant sounds, dissonances? It will be readily seen that all the unpleasant effects of simultaneous sound-combinations are the result of beats produced by those combinations. Beats are the only sin, the sole evil of music. Consonance is the coalescence of sounds without appreciable beats.

To make this perfectly clear to you I have constructed the model which you see in Fig. 4. It represents a claviatur. At its top a movable strip of wood *aa* with the marks 1, 2 . . . . 6 is placed. By setting this strip in any position, for example, in that where the

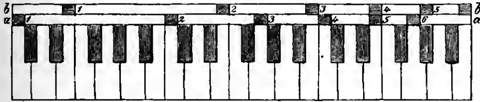

Fig. 4.

mark 1 is over the note *c* of the claviatur, the marks 2, 3 . . . . 6, as you see, stand over the overtones of *c*. The same happens when the strip is placed in any other position. A second, exactly similiar strip, *bb*, possesses the same properties. Thus, together, the two strips, in any two positions, point out by their marks all the tones brought into play upon the simultaneous sounding of the notes indicated by the marks 1.

The two strips, placed over the same fundamental note, show that also all the overtones of those notes coincide. The first note is simply intensified by the other. The single overtones of a sound lie too far apart to permit appreciable beats. The second sound supplies nothing new, consequently, also, no new beats. Unison is the most perfect consonance.

Moving one of the two strips along the other is equivalent to a departure from unison. All the overtones of the one sound now fall alongside those of the other; beats are at once produced; the combination of the tones becomes unpleasant: we obtain a dissonance. If we move the strip further and further along, we shall find that as a general rule the overtones always fall alongside each other, that is, always produce beats and dissonances. Only in a few quite definite positions do the overtones partially coincide. Such positions, therefore, signify higher degrees of euphony —they point out *the consonant intervals*.

These consonant intervals can be readily found experimentally by cutting Fig. 4 out of paper and moving *bb* lengthwise along *aa*. The most perfect consonances are the octave and the twelfth, since in these two cases the overtones of the one sound coincide absolutely with those of the other. In the octave, for example, 1 *b* falls on 2 *a*, 2 *b* on 4 *a*, 3 *b* on 6 *a*. Consonances, therefore, are simultaneous sound-combinations not accompanied by disagreeable beats. This, by the way, is, expressed in English, what Euclid said in Greek.

Only such sounds are consonant as possess in common some portion of their partial tones. Plainly we must recognise between such sounds, also when struck one after another, a certain affinity. For the second sound, by virtue of the common overtones, will produce partly the same sensation as the first. The octave is the most striking exemplification of this. When we reach the octave in the ascent of the scale we actually fancy we hear the fundamental tone repeated. The foundations of harmony, therefore, are the foundations of melody.

Consonance is the coalescence of sounds without appreciable beats! This principle is competent to introduce wonderful order and logic into the doctrines of the fundamental bass. The compendiums of the theory of harmony which (Heaven be witness!) have stood hitherto little behind the cook-books in subtlety of logic, are rendered extraordinarily clear and simple. And what is more, all that the great masters, such as Palestrina, Mozart, Beethoven, unconsciously got right, and of which heretofore no text-book could render just account, receives from the preceding principle its perfect verification.

But the beauty of the theory is, that it bears upon its face the stamp of truth. It is no phantom of the brain. Every musician can hear for himself the beats which the overtones of his musical sounds produce. Every musician can satisfy himself that for any given case the number and the harshness of the beats can be calculated beforehand, and that they occur in exactly the measure that theory determines.

This is the answer which Helmholtz gave to the question of Pythagoras, so far as it can be explained with the means now at my command. A long period of time lies between the raising and the solving of this question. More than once were eminent inquirers nearer to the answer than they dreamed of.

The inquirer seeks the truth. I do not know if the truth seeks the inquirer. But were that so, then the history of science would vividly remind us of that classical rendezvous, so often immortalised by painters and poets. A high garden wall. At the right a youth, at the left a maiden. The youth sighs, the maiden sighs! Both wait. Neither dreams how near the other is.

I like the simile. Truth suffers herself to be courted, but she has apparently no desire to be won. She flirts at times disgracefully. Above all, she is determined to be merited, and has naught but contempt for the man who will win her too quickly. And if, forsooth, one breaks his head in his efforts of conquest, what matter is it, another will come, and truth is always young. At times, indeed, it really seems as if she were well disposed towards her admirer, but that admitted—never! Only when Truth is in exceptionally good spirits does she bestow upon her wooer a glance of encouragement. For, Truth thinks, if I do not do something, in the end the fellow will not seek me at all.

This one fragment of truth, then, we have, and it shall never escape us. But when I reflect what it has cost in labor and in the lives of thinking men, how it painfully groped its way through centuries, a half-

matured thought, before it became complete; when I reflect that it is the toil of more than two thousand years that speaks out of this unobtrusive model of mine, then, without dissimulation, I almost repent me of the jest I have made.

And think of how much we still lack! When, several thousand years hence, boots, top-hats, hoops, pianos, and bass-viols are dug out of the earth, out of the newest alluvium as fossils of the nineteenth century; when the scientists of that time shall pursue their studies both upon these wonderful structures and upon our modern Broadways, as we to-day make studies of the implements of the stone age and of the prehistoric lake-dwellings—then, too, perhaps, people will be unable to comprehend how we could come so near to many great truths without grasping them. And thus it is for all time the unsolved dissonance, for all time the troublesome seventh, that everywhere resounds in our ears; we feel, perhaps, that it will find its solution, but we shall never live to see the day of the pure triple accord, nor shall our remotest descendants.

Ladies, if it is the sweet purpose of your life to sow confusion, it is the purpose of mine to be clear; and so I must confess to you a slight transgression that I have been guilty of. On one point I have told you an untruth. But you will pardon me this falsehood, if in full repentance I make it good. The model represented in Fig. 4 does not tell the whole truth, for it is based upon the so-called "even temperament" system of tuning. The overtones, however, of musical sounds are not tempered, but purely tuned. By means of this slight inexactness the model is made considerably simpler. In this form it is fully adequate for ordinary purposes, and no one who makes use of it in his studies need be in fear of appreciable error.

If you should demand of me, however, the full truth, I could give you that only by the help of a mathematical formula. I should have to take the chalk into my hands and—think of it!—reckon in your presence. This you might take amiss. Nor shall it happen. I have resolved to do no more reckoning for to-day. I shall reckon now only upon your forbearance, and this you will surely not gainsay me when you reflect that I have made only a limited use of my privilege to weary you. I could have taken up much more of your time, and may, therefore, justly close with Lessing's epigram:

> "If thou hast found in all these pages naught that's worth the thanks,
> At least have gratitude for what I've spared thee."

TRAVELLING DURING A RAILROAD STRIKE.

There seems to be no end of strikes. The coal-miner's strike is scarcely over and the Pullman works still lie idle as if forever dead, when suddenly all the railroads of the country are threatened with a general strike under the auspices of the American Railway Union. The movement began with the stoppage of the trains of the Illinois Central Railroad but spread rapidly over the other roads, and soon gained such dimensions that almost all traffic in Chicago is paralysed, the milk supply is partly interrupted, ice begins to be scarce, thus making it impossible to keep meat fresh, and travelling has become dangerous.

Having attended to some business in Chicago, I thought I had better go home since my road was not yet affected, and went to the Rock Island depot where the train was due at 3:30 P. M. The train was not as yet made up, and a great number of passengers were eagerly discussing the probabilities of their fate. Will the train run? Will it be stopped by the strikers? Anyway, a person not compelled to travel had better stay home, for the train may be derailed. There are Pullman cars in the train. But then the train carries mail and the strikers will be careful not to interfere with the United States mail. Mobs may assault the train. Nevertheless, the passengers need not fear, for the strike is directed against the road, not against the public.

Such were the thoughts and sentiments expressed. Having waited about half an hour the cars came rolling into the depot and the public rushed through the gate where they had to show their tickets. "Have your ticket ready," I overheard some one say, "the man at the gate is sometimes very impolite and treats the public as an overseer in the penitentiary treats criminals under his control." An acquaintance of mine, standing at my side, added, "the American public is very patient. We love liberty in name only but we suffer the most outrageous oppression by big corporations." Mark Twain's article "Travelling with a Reformer," had no effect upon the managers of our roads. On entering this gate we have to leave our citizen's rights behind and must submit to the sweet will of the company.

The train was overcrowded; all the seats were taken and all the aisles filled. The heat was oppressive; yet we had to endure it, and the train stood there for another half an hour. Newcomers crowded the room still more and spread discouraging rumors as to the condition of things in the suburbs. All trains are stopped, it was said, and the engineers and firemen are induced to join the strike. It is a bare possibility that the train will run, but we have to take our chances. Another half hour passed and many people left the car. I might have done so too, but the rain poured in torrents and I thought, this may be the last train.

At last the train started, but it returned at once into the depot and was switched upon another track. There we stood again and waited. The time had come for the next train, which was an accommodation train to run on the same line, and both trains were merged into one. Many passengers deserted the train but new ones took their seats, and we were overcrowded as before. Among the travellers were not only young men bound for their Sunday excursion, but also families going west and mothers with babies.

Now the train actually started; it took us more than double the usual time to pass through the city, for the engineer had to look out to avoid danger; yet we reached Englewood and passed unmolested out of the city limits. A gentleman from Blue Island had his seat beside me and he said, "there will be trouble in Blue Island, for the strikers are very powerful there and a mob of toughs is always ready to swell their numbers wherever they are bent on mischief."

We approached Blue Island, the speed of the train slackened, when suddenly we felt a jerk that shook us all in our seats, followed by another jerk, as though the train were thrown off the rails, and there we stood still. Some passengers left the cars to see what was the matter. The engine stood toppling over, with one front wheel upon the right branch of the switch, the other front wheel buried a foot deep in the ground, while the hind wheels of the tender were touching the rails of the left branch. The pivots of the tender were broken, and big splinters of wood testified to the vehemence with which it had collided with the engine. The engineer must have had an uncomfortable moment while the

engine was thrown over under his feet and wildly shaken, and no doubt he had a narrow escape. He might have been crushed by the intruding tender, and if the boiler had been injured what a terrible death of being scorched alive!

How did it all happen? An infamous switchman had turned the switch at the last moment, and the yardmaster tried in vain to prevent him. But the felon succeeded in pulling the switch half open, and the engine was wrecked. Happily the engineer had been on his guard. Observing the struggle in the switch-tower, he reversed the engine and applied at the same time with all force the air-brakes. His circumspection apparently had saved hundreds of lives. If the train had had a little more speed the front cars would have unfailingly been thrown upon the wrecked engine and would have been crushed under the weight of the following cars. Had the engine run at full speed, the whole train would have been piled up in a twinkle in a heap of ruins.

It was still raining, but the passengers went out to witness the work of destruction. The author of the wreck had no chance of escaping from the switch-tower, and was at once taken into custody and put in jail. The rain still continued; still there were plenty of strikers present, all elated at the great accomplishment which successfully blockaded the whole line.

In the meantime the roadmaster was placed under arrest by the local authorities of Blue Island for obstructing the crossing by the wrecked train, and had to be bailed out.

Other trains came and ranged behind us and on side-tracks. The strikers roamed over the yard of the road, talking, laughing, and sometimes cheering. Some of the passengers thought it was good fun, others looked rather discomforted, but all their inquiries as to our further progress west or return to the city were regularly answered by the officials of the road with a shrug and "I do not know; we wait for orders." With some acquaintances of mine I went out and mingled with the crowd. There were roughs among them, and their remarks were not pleasant. Their general drift was: If a railroad strike is ordered, no one has any business to travel. Besides, travelling is a privilege of the rich. A little discomfiture will serve them right. The engineer, a tall and strongly built man, left his engine with regret. It was the best engine on the road, and tears were in his eyes when he saw some parts broken, some bent; it is true they were but slightly bent, but they were beyond hope of mending. "My poor ninety-four!" he said; this was the number of the engine. "I ran it since I worked on the road." One of the crowd standing by and spitting tobacco-juice on the ground, said: "The d—— fool! He can get another machine!"

The public behaved, upon the whole, indifferently. Without either indorsing or condemning their opinions, I will tell what I heard them say. They railed at Pullman and at the road; but their remarks about the strikers were made with more discretion, or in secrecy, for disturbances of the peace had taken place, and it was advisable not to provoke a riot. Pullman was denounced for his greed and interference with the liberty of his people, as he did not allow them to choose their residences for themselves. It was urged by some among the public that the strike had no rhyme nor reason, because Pullman did not directly suffer by the tactics of the A R. U., but only the roads and the public. The roads have to fulfil their part of the contract, whether they run Pullman cars or not. "Well," it was said, "it will hurt Pullman at any rate, for they will not renew their contracts." Some one added: "Yet why should others suffer because the A. R. U. have a spite against one man?" "True, but then the main sufferers are the roads, and the roads have little sympathy with the public." One could hear all the old grudges which the public had against them.

"This road," I heard some one say, "is distinguished by a peculiar narrowness in its management. They do not care for the comfort of the public." A gentleman who said with the assurance of one who was conscious of being well informed: "Gruff conductors have the best chance of promotion, while gentlemanly men, who treat the public decently, find little consideration. One of their best men was dismissed on a baseless charge, and a unanimous petition of his comrades was ignored. The man was married, and succumbed to the worries to which he was exposed. He fell sick and died." "Of course," suggested another passenger, "we ought to hear both sides of the case." Protesting that matters were as stated, the former passenger continued: "And why is this road so reluctant in giving reduced rates? They ought to have shown some consideration for the public during the World's Fair. It is their duty to consider the wants of the public, for roads are franchises, and the holders of these franchises must not forget that they are public institutions intrusted to their care. There are other roads which are more obliging to the public, working also in good harmony with their men. The managers of some of the roads act exactly as if they wished to make themselves obnoxious to the public at large; no wonder that the public has no sympathy with their occasional losses by strikes." "By the bye," remarked an elderly gentleman, "if the roads introduced cheap rates they would enjoy a greater prosperity. From a mere business consideration they should endeavor to accommodate the public."

Listening to the indignation thus openly vented against the management of the roads, one might have thought the public in full sympathy with the strikers. But they were not. Many were very bitter against the leader of the strike, who, dictator-like, assumed the power to cripple trade and commerce, and to marshal the men to quit their work, even against their will, by moral persuasion, as it is called; but everybody knows what is meant by "moral persuasion." "It is true," someone said, "that the president of the A. R. U. forbids violence and cautions his men not to meddle with the United States mails. Nevertheless, it is done; and so far the strike has been successful only through the derailment of trains and other lawless acts, and the leader of the strike must know it."

There was another opinion given by a business man. "The strike has ceased to be a war between the A. R. U. and Mr. Pullman, it is waged at society at large and involves everybody who does not join the strikers. Hundreds of businesses are heedlessly ruined, babies have no milk, food becomes dear, men are forced out of work; the enforced idleness degenerates the character of the laborer. We may have a famine among the unemployed and crimes will rapidly increase. And the lessened demand will create a lesser demand for work. Times are hard anyhow. It is the worst time to strike and strikes will only help to reduce wages. Those who in the end will suffer most by the increased hardships of the times are after all the laborers."

"I am certainly in sympathy with every one who toils for his daily bread, but the laborer is not the only toiler in this world entitled to our sympathy, and if the strikers continue to act with such brutal egotism, trampling under foot all equity, they will at once lose the public sympathy which they still enjoy."

There was a German gentleman among the passengers who remarked that such a situation would be impossible in the old country. "There is no government here," he said, "and anarchy prevails as in the Middle Ages when every member of the Empire was allowed to wage war on his neighbors" "True," said another German, "but the consequence is that the government is hated and is looked upon by the mass of the people as tyrannous. The late riot in Cassel proves how strong the public sentiment is against the authorities who enforce order and law. That is certainly no healthy state of conditions in which every policeman or government official is looked upon as an enemy to society at large, who has to be resisted and hindered in the execution of his office as much as possible. I should not like to be among strikers in Germany, while our strikers here limit themselves to a special kind of mischief as the occasion may demand, but are otherwise law-

abiding and harmless. He who does not provoke them, may feel perfectly safe among them. It is better after all to let matters take their course until the interference of the authorities becomes absolutely necessary, for thus alone public opinion can be tested, and thus alone can we learn whether and to what extent strikers are deserving of the people's consideration and moral assistance."

One of our fellow-travellers, who had kept quiet for a long time, burst out, "The leader of the strike ought to be indicted, for although he pretends to keep within the bounds of the law, he suffers the men who obey him to trespass the laws." "Very true," said a companion of the speaker, "the leaders of the strike are the very opposite of the anarchists who were sentenced to death. The anarchists preached anarchy and revolution, but did not partake in revolutionary proceedings, for they did not throw the bomb, while the leaders of this railroad strike preach peace and law but induce their followers to practise revolutionary acts. The strike is considered a great success at the headquarters of the strikers; but their leader is still an unexperienced man in such matters. His overconfidence will soon give way to a bitter disappointment. In my opinion, the strike is lost; for the many acts of violence, committed all over the country, will without fail doom it. We may congratulate ourselves that we were not killed in this derailment, but the strikers, too, may congratulate themselves that not more harm is done in the various other happenings of the same kind. For they will, as the intellectual authors, be held responsible for it, even if they were not guilty of it."

There were more than twenty deputy marshals and deputy sheriffs on the train. One of the former explained to a passenger the situation, saying that the marshals' business was merely to protect the mail, other disturbances that might happen did not concern them. "I see, I see!" the passenger said, and walking away with his friend he said, "Uncle Sam is determined to protect the United States mail, but he does not bother about the United States citizens, that is a matter of State administration. A labor-dictator may with impunity impede passenger trains if he only allows the letters to pass on. Paper is of greater weight to him than human lives, because it belongs to the federal department and the free movements of citizens is purely private business."

There was some hope of the train's moving on. The passengers were ordered to resume their seats and the deputies cleared the ground of the strikers. But no help could be procured to move the wrecked engine. The orders from the headquarters of the road in Chicago were unsatisfactory. The strikers did not allow trains to return, and even stopped a train conducting fifty more deputies destined to preserve the peace in the road's yard at Blue Island.

It had become night and the passengers had taken their seats in the cars, when suddenly all the electric lights were extinguished. The strikers had called on the men in the electric plant and plied them until they joined them from sympathy and quit work.

When the night had advanced, our conductor passed through the car and said, "ladies and gentlemen, make yourselves as comfortable as you can. We shall not leave the spot before morning." "And shall we move on?" asked several voices. "At early daylight we shall pull out, if we can," he rejoined and left us to ourselves.

Now at last we knew something definite about our fate for the next few hours and everybody tried to make his bed the best he could. There was much fun and good humor. One gentleman began to snore; another one had lost one of his shoes and suspected his friends of having stolen it, others demanded that the lights be turned low while still others claimed that they wanted to read. The most law-abiding passenger was undoubtedly an eleven months old boy—a marvel of a baby. He did not cry and slept quietly amid all the confusion. His poor mother sat up at his side all night, and when the morning dawned tried to get breakfast in the dining-car of the train behind us. But in vain; the car, although the property of the Rock Island Road, was built at Pullman's and the strikers allowed them no water. So the mother had to go without coffee, and, having the baby, she did not venture to go into town to get something to eat and to drink.

When the morning dawned the situation was as hopeless as ever. The wrecked engine stood on the same place, and trains could move neither forward nor backward. The inconveniences increased. The ice-water in the cars was gone, and the people clamored for wash-water and for breakfast. The news from the city increased the excitement, for it was stated that the whole road was tied up, and if the train could get out here, it would meet with the same fate again before it reached Joliet. Under these conditions I thought it wisest to walk back to the next street-car connexion with Chicago. Blue Island lies sixteen miles south of Chicago, and the nearest street-car conveyance was at a distance of about two miles, in New Pullman. There was a rumor that the street cars had been tied up too, but there was no probability of it, and, luckily, it proved false Two gentlemen joined me, but the mass of the passengers stayed, hoping for release in some shape from somebody. In New Pullman we found the electric cars running. We took breakfast in an inn at the wayside. The host offered us his bathroom for a morning wash and charged no extra price.

The papers of Chicago contained the news of an almost universal tie-up of the roads. Yet I was lucky still. I could go via Mendota on the Burlington Road, which was not touched by the strike and even carried its Pullman cars without being molested.

I have frankly told what I have seen and heard, not because I agree with all the opinions which I had occasion to listen to, but because the solution of the social troubles which surround us at present depends, I might say, exclusively on the public. The sympathy of the people is the ultimate court of appeal before which the quarrels of various classes of society are to be decided.

The boycott of Pullman has become a matter of secondary considaration. The present revolts and strikes are represented by the strike leaders as unavoidable means only to a greater end; and the ultimate aim finds expression in resolutions passed at a meeting in Uhlich's Hall, "that some day in the near future the revolt will be more sweeping, not economically alone against a few masters, but politically against the whole master class, wresting from them the control of the law-making power, the control of the police, militia, and the courts, which in all cases have been arrayed against the workers."

Strikes have been sanctioned, and the question is only whether and to what extent shall strikers be allowed to interfere with the rights of other people in order to render their strikes effectual. It is a question of power. The ultimate basis of all established law is the common will of the people. If such labor unions as the A. R. U. represent the common will, although they form a very small fraction of the people, they can make the law and establish the dictatorship of their leaders. Power can establish right, but whether the new right would be an improvement upon the old right is very doubtful.

We love progress, but here is a side-switch which endangers liberty; and liberty so far has given the best guarantees of being the soundest and most practical principle in social economy. P. C.

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ADVENTURES OF PAINE IN LONDON AND PARIS.

BY MONCURE D. CONWAY.

Clio Rickman says that Paine's "Rights of Man," Part I, was mainly written in London, but finished at Versailles. This he could only have learned from Paine himself. But I am now inclined to think that he misunderstood Paine, and that the work was begun at Versailles and finished in London. This is suggested by a letter of Lafayette, "Paris, 12 Jan., 1790," in which he tells Washington: "*Common Sense* is writing for you a brochure where you will see a part of my adventures." I have not been able to find among Washington's papers anything from Paine that could be described as a brochure, and think this must mean that he had already begun a history of events such as that with which Part I opens, and which is dedicated to Washington. The work was probably enlarged (on account of Burke's attack on the Revolution, early in the Parliament of 1790) from time to time until its publication, March 13, 1791. Lafayette appears to have had a residence at Versailles, and probably Paine was his guest. At any rate, the above note from Lafayette shows that he was in some sense a collaborator with Paine in the history of the early stages of the Revolution. About the same time Paine wrote an extended letter to Edmund Burke, who had been his friend, and had entertained him at his residence, "Beaconsfield." Croly, Burke's biographer says: "Among his [Paine's] earliest missives was a letter to Burke in which he eagerly urged him to introduce the Revolution into England by its established name of 'Reform.' Burke threw back the temptation, or the insult, at once," etc. I have made ineffectual searches after this letter. Dr. Macknight, one of Burke's biographers, writes me that Burke probably destroyed it; but Croly had evidently read it. The investigation has convinced me that the family and executors of Burke have suppressed very important papers relating to him. I have long perceived that Burke's personal character will not bear the full light. By the way, I lately found in an old English magazine, *The Argus*, 1796, an epigram on Burke:

> "A pension makes him change his plan
> And loudly damn the 'Rights of Man.'"

To return to Lafayette. He begins a letter to Washington, March 17, 1790, with apologies for not writing more regularly; "It is difficult, in the midst of our troubles, to learn in time good occasions; but this time it is to Mr. Paine, who leaves for London, that I entrust the care of sending you my news. . . . Permit me, my dear General, to offer you a picture representing the Bastille as it was some days after I gave the order for its demolition. I also pay you the homage of sending you the principal key of that fortress of despotism. It is a tribute I owe as a son to my adoptive father, as aide-de-camp to my General, as a missionary of liberty to his patriarch." Paine sent the picture and the key from London by the hand of J. Rutledge, Jr., May 31, 1790, as is told in my "Life of Paine" (i, p. 274). I have just found in Paris a letter which has never seen the light, from a French agent in America, Louis Otto, which is amusing enough to insert in my rambling story. Under date of New York, August 4, 1790, Otto writes to his chief in Paris:

"In attending yesterday the public audience of the President, I was surprised by this chief magistrate's question, whether I would like to see the key to the Bastille? One of his secretaries showed me at the same moment a large key which had been sent to the President at the desire of the Marquis de la Fayette, by the hand of a young American just arrived from France. [Rutledge came from London.] I dissembled my surprise in observing to the President that 'the time had not yet come in America to do ironwork equal to that before him.' The Americans present looked at the key with indifference, and as if wondering why it had been sent. But the serene face of the President showed that he regarded it as an homage from the French nation." In a letter of December 13, 1790, Otto returns to the key again:

"The key of the Bastille, regularly shown at the President's audiences, is now also on exhibition in Mrs. Washington's *salon*, where it satisfies the curiosity of the Philadelphians. I am persuaded, Monseigneur, that it is only their vanity that finds pleasure in the exhibition of this trophy, but Frenchmen here are not less piqued, and many will not enter the President's house on this account."

JUL 12 1894

So little did these Frenchmen realise the tremendous march of events in France, or the cause of the storm, which really was the American Republic. There were evils in France, though rather fewer than in other nations of Europe, and none to excite a revolution. It was a vision of the Golden Age across the Atlantic which possessed France. Paine wrote to Washington, "that the principles of America opened the Bastille is not to be doubted, and therefore the Key comes to the right place."

Early in May, 1791, Lafayette writes to Washington: "I send you the rather indifferent translation of Mr. Paine ['Rights of Man,' Part I.] as a kind of preservative and to keep me near you."

The "indifferent translation" was not that of Paine's friend Lanthanas, but a hasty one by F. Soules, which appeared with the following title (translated): "Rights of Man. In answer to the attack of Mr. Burke on the French Revolution. By Thomas Paine, Secretary of Congress for Foreign Affairs during the American War; and author of the work entitled 'Common Sense.' Translated from the English by F. S. . . . . With Notes and a new Preface by the Author. Paris: F. Buisson. Imprimeur-Libraire. Rue Hautefeuille. May, 1791."

The first enthusiastic "Painite" in Paris was, probably, Achille Duchâtelet, a young nobleman, who had married an English wife, Charlotte Comyn, and knew English. He and Paine, immediately after the attempt of Louis XVI. to escape from France, in June, 1791, placarded Paris with the first republican manifesto ever issued in Europe. The following is from Dumont's "Recollections of Mirabeau":

"The celebrated Paine was at this time in Paris, and intimate in Condorcet's family. Thinking that he had effected the American Revolution, he fancied himself called upon to bring about one in France. . . . Duchâtelet called on me, and after a little preface placed in my hands an English manuscript,—a Proclamation to the French People. It was nothing less than an anti-royalist Manifesto, and summoned the nation to seize the opportunity and establish a Republic. Paine was its author. Duchâtelet had adopted and was resolved to sign, placard the walls of Paris with it, and take the consequences. He had come to request me to translate and develop it. I began discussing the strange proposal, and pointed out the danger of raising a republican standard without concurrence of the National Assembly, and nothing being as yet known of the King's intentions, resources, alliances, and possibilities of support by the army, or in the provinces. I asked if he had consulted any of the most influential leaders,—Sieyès, Lafayette, etc. He had not: he and Paine had acted alone. An American and an impulsive nobleman had put themselves forward to change the whole governmental system of France. Resisting his entreaties, I refused to translate the Proclamation. . . . Next day the republican Proclamation appeared on the walls in every part of Paris, and was denounced to the Assembly. The idea of a Republic had previously presented itself to no one: this first intimation filled with consternation the Right and the moderates of the Left. Malouet, Cazales, and others proposed prosecution of the author, but Chapelier, and a numerous party, fearing to add fuel to the fire instead of extinguishing it, prevented this."

Lafayette now missed his great opportunity. He was a thorough republican at heart, but did not realise that the people were also such. Both Jefferson and Paine warned him of this, but he maintained that it would be twenty years before France would be ripe for a Republic. This led Lafayette to trust to the momentary alliance of throne and people, which sank under his foot like a quicksand, and left him a prisoner in Austria. Paine, in dedicating Part II of "Rights of Man" to Lafayette, alludes to their only difference. "That which you suppose accomplishable in fourteen or fifteen years, I may believe practicable in a much shorter period." So short was the period that when this Part II, which appeared in London, February 17, 1792, appeared in the late summer in a French translation, the translator had to apologise for Paine's praise of Lafayette! "The seed sown by the audacious hand of Paine," says Dumont, "were now [June, 1791] budding in leading minds." On September 21, 1792, they had borne fruit in the formal abolition of Royalty.

Let me now refer to some unknown items connected with a very different man, namely William Blake, the mystical artist and poet, the subject of important monographs by Gilchrist, Yeats, and Swinburne. There was perhaps no other contemporary of Thomas Paine so remote from his religious rationalism, and yet Blake certainly saved Paine's life. In September, 1792, Paine was lodging at Rickman's house and book-shop (7 Upper Marylebone Street, the house remains and is still a book-bindery). On the 13th the police had determined on his arrest, and had they succeeded he would unquestionably have been hung. But Blake found him at the house of his publisher, Johnson, and said, "You must not go home, or you are a dead man." Paine was got off by his friends to Dover, whither the police tracked him, but arrived too late. They saw the distant sail wafting him to France.

It is difficult to discover from Blake's mystical visions how much political radicalism there was in him. Paine had become to him a transcendental type, one of seven American figures who appear in his "Prophecy" concerning America (1793):

"The Guardian Prince of Albion burns in his nightly tent.
Sullen fires across the Atlantic glow to America's shore:
Piercing the souls of warlike men, who rise in silent night:—
Washington, Franklin, Paine, and Warren, Gates, Hancock, and Green,
Meet on the coast glowing with blood from Albion's fiery Prince."

These seven are wrapt in the flames of their enthusiasm. Albion's Prince sends to America his thirteen angels, who, however, there become governors of the thirteen States.

Whatever may have then been Blake's politics, they were consistent with his apotheosising Pitt during the war with France, though in a somewhat equivocal way. In the National Gallery there is a picture by him which he described in a catalogue (1809) as: "The spiritual form of Pitt guiding Behemoth. He is that angel who, pleased to perform the Almighty's orders, rides on the whirlwind, directing the storms of war. He is ordering the reaper to reap the vine of the Earth, and the Ploughman to plough up the Cities and Towers." A close examination of this curious picture suggests that in his catalogue, printed a few years after Pitt's death (1806), Blake gave it a euphemistic construction. The monster jaws of Behemoth are full of struggling men, some of whom reach up imploring hands to another spiritual form, who reaches down from a crescent moon in the sky, as if to save them. This latter face and form appear to me certainly meant for Thomas Paine.

Although Paine owned a house and farm at New Rochelle, near New York, and a small house and lot at Bordentown, N. J., he had not much cash. He would not accept rent from the widow who occupied the latter. His "Rights of Man" brought in a good deal of money, but he gave it all away to the various "Constitutional Societies" in England, which had sprung up to propagate his views. In order to do this he had to live poorly. Gouverneur Morris (April 16, 1791) speaks of visiting his "wretched apartments" in Paris. That of course was all changed when he returned to Paris as the representative of Calais in the National Convention. He arrived September 19, 1792, at what was then known as "White's Hotel," No. 7 Passage des Pétits Pères, not far from the Louvre. It is about ten minutes' walk from the place where the Convention sat. On the wall of the Tuilleries Garden, Rue de Rivoli, there is now a tablet in French which reads:

"On this spot, before the opening of the Rue de Rivoli, stood the Salle de Manége, where sat successively the Constituent Assembly from 9th November, 1789, to 30th September, 1791; the Legislative Assembly from 1st October, 1791, to 21st September, 1792; the National Convention from 21st September, 1792, to 9th May, 1793; and where was inaugurated the Republic of 21st September, 1792."

In this vanished edifice Paine was introduced by the Abbé Grégoire, September 21, and received with acclamations.

IN MEMORY OF GEN. M. M. TRUMBULL.

We have received many kind letters, addressed partly to Mrs. Trumbull and partly to *The Open Court*, from friends and readers of the late General Trumbull, both abroad and at home, among whom we mention George Julian Harney of Richmond, England, Prof. Richard Garbe of Königsberg, Moncure D. Conway, at present in London, Louis Prang of Boston, Alexander Russell Webb, editor of the *Moslem World*, New York, Michael D. Harter and Col. D. B. Henderson, the two latter members of the House of Representatives, Washington, D. C., Frederick W. Peabody of Boston, Mass., Edward Atkinson of Boston, the well known statistician, Lyman J. Gage, President of the First National Bank of Chicago, Ill., Col. Edgar T. Ensign, Colorado Springs, Col., Wm. M. Salter, formerly of Chicago, now Speaker of the Society for Ethical Culture in Philadelphia, F. de Gissac of Waco, Texas, C. Staniland Wake, W. J. White of Buffalo, N. Y., Dr. Munsell of the *Dubuque Trade Journal*, Col. J. J. Lambert, editor of the *Pueblo Chieftain*.

Frau Baronin Bertha von Suttner, the well-known author of "Ground Arms!" writes from Hermannsdorf-Eggenburg, Austria:

"I only wanted to tell you that I have shed a tear for General Trumbull. I cherished this author, I respected this man—his wit delighted me; his heart was never cold, his judgment never erring. And while I write this, my eyes are again filling with tears."

Dr. Robert Lewins, the philosopher of Hylo-Idealism, writes:

"I cannot deny myself the melancholy satisfaction of expressing the deep interest and admiration felt on perusal of your "Memorial" in the last number of *The Open Court* of the late M. M. Trumbull, whose death must have been a specially great blow and loss to his friends as no doubt it is to universal humanity and the cause of truth. He must have been a grand specimen of a man. That his name was not wider known and more prominent in the outer world, European and American, is one more proof of our racial insensibility—I may even say hostility to the good, beautiful, and true. I have always held with 'martyred Phocion' of old, who, when applauded on the *Bema*, used to stop and ask what he had said amiss. I sincerely condole with you on this occasion."

Prof. J. H. Cook writes:

"My poor words are feeble to express my loss and appreciation of one of nature's greatest noblemen—the noblest that ever graced a 'Wheelbarrow.' I sadly missed one week's mental feast of 'Current Topics,' then to hear so soon of his death, was too much for my nerves. He was one of my dearest universal brothers. I wanted him to live to spread his light for human amelioration many years."

Among the newspapers which commented upon General Trumbull's death, we mention the *London Times*, the *London Athæneum*, the *Review of Reviews*,

all the Chicago dailies, and prominent papers in other great cities.

The *Hayes Valley Advertiser*, in an editorial article dwelling on the merits of General Trumbull, says:

"The press dispatches announced the death of this great man in three lines; they would have given a prize-fighter or murderer a half column at least."

The *Newcastle Chronicle* published several letters and one article on General Trumbull's life by Harney, from which we quote:

"The loss to *The Open Court* of General Trumbull's weekly notes must be incalculable. The learned and highly-efficient editor is and will be sustained by able contributors both American and European; but no one can fill the deceased's vacant chair. If no one of the suitors could draw the bow of Ulysses, so no one that I can think of can take up the pen which has fallen from the hand of General Trumbull. In wit and sarcasm, controlled by unimpeachable common sense and the loftiest sense of ethical justice, it will be hard to find his successor. His style made him the most agreeable and desirable of writers. No matter what his topic, or topics, he was sure to be readable and enjoyable from the first line to the last. To illustrate his argument, or to point his moral, he had a whole gallery of characters at his command, giving to 'airy nothings a local habitation and a name'—such as his Marbletown and other worthies; his cute Yankees; his wide-awake Westerners; his roguishly-simple Irishmen; his military Scaramouches worthy of Bird-o'-Freedom Sawin; his impecunious philanthropists; his needy and greedy demagogues; his professional politicians, so adept at pulling the wool over the eyes of their dupes; and many more. All lost to us. Waes me!"

The *Pueblo Daily Chieftain* contains an excellent sketch of General Trumbull's life, four columns long, written by one of his old war comrades, Col. Edgar T. Ensign. We quote from it the comments made on his military career:

"He was mustered out of service with his regiment at Little Rock, Ark., the 16th of the next February. The following complimentary order was issued by Major-General H. J. Hunt, commanding the Frontier district, department of Arkansas:

"'The Commanding-General takes this occasion to convey to Brevet Brigadier-General Trumbull and the officers and men of his regiment his appreciation of the good service they have rendered while under his command, and the excellence of their discipline, which has frequently elicited the commendations of the citizens of the district.'

"General Trumbull's farewell letter to his command was as follows:

"'Headquarters 9th Iowa Cavalry Vol.,
Fort Smith, Ark., Feb., 19, 1866.

To the officers and soldiers of the Ninth Iowa Cavalry:

Gentlemen: We are about to separate. Our work is done. The flag of the republic waves triumphantly over all her ancient domain. In the great struggle which has passed you have done well, and you leave the service, carrying with you a noble tribute of approbation from the Major-General commanding the district, one of the greatest soldiers of the country. The hardships and dangers you have undergone have been great, and many of our comrades have sunk by the wayside. The discipline has been severe, but it was necessary to make soldiers of you. In the new position you are to assume preserve your soldier's name untainted, and should the President of the United States again order the "long roll" beaten, I trust we shall all be ready to "fall in."

May prosperity and happiness attend you all. Comrades, I bid you farewell. M. M. Trumbull,
Col. Ninth Iowa Cav. Vols. and Brevet Brig. Gen. U. S. A.'

"At this point may be noticed a few of General Trumbull's characteristic traits, as they appeared to a fellow soldier: His high courage, manliness, and unwavering loyalty need hardly be mentioned; they were patent to all. His sturdy independence and disregard for caste were also strongly manifest. Under all circumstances he strongly maintained the inherent dignity of man, making no distinction of 'race, color, or previous condition of servitude.' Numerous illustrations of this were shown in his army life and relations with people of the South, both white and colored. Many a soldier in the ranks, fleeing Unionist or down-trodden black, has gratefully cherished the memory of his kind and timely deeds.

"His *bonhomie* and love of good cheer were notable. When relieved from the cares of business and military duties, nothing gave him greater pleasure than to gather congenial spirits around him for social intercourse. His quarters in camp, while maintained with strict regard to military discipline, were always a social centre. Officers of other commands delighted to visit him and share in the relaxations of the hour. As a host and *bon vivant*, he was inimitable. Who of the Ninth Cavalry does not recollect the log cabin headquarters at Bayou Two Prairie, Arkansas, called facetiously the 'Colonel's Den'? Upon many well-remembered occasions his brother officers were assembled there for conversation, games, reading, recitations, 'stump speeches,' and the like. The humor and versatility of General Trumbull and his varied and unfailing social resources were remarkable. All were brought within their spell.

"The eminent services which General Trumbull had rendered in the late war were generously recognised and appreciated by the people of Iowa. Upon his return to them in March, 1866, the General Assembly then in session at Des Moines tendered him a public reception. Upon that occasion he made an eloquent and impassioned appeal, urging his fellow citizens to support Congress in its reconstruction measures."

Another of General Trumbull's old war comrades writes in the *Gazette* of West Union, Iowa:

"Our personal relations with General Trumbull extend back to 1861, when we joined the company he was raising under President Lincoln's first call for volunteers, which became Company I, Third Iowa Infantry, and of which he was captain. He was thoroughly military, a strict disciplinarian, but of a noble, generous nature, faithful and brave as a soldier, never shirking a duty, nor permitting it of others. He received a severe wound at Shiloh, the effects of which lingered by him all his life and probably contributed to his death. He was an invalid many years, and was never able to be present at any of the reunions of the Third Regiment until the last one, at Decorah, two years ago last summer. His reception on that occasion bespoke the love and admiration of his comrades in a manner that brought tears to his eyes, and when he recovered his voice, seemed to renew his youth, talking with that vim and energy so characteristic of the days when he was captain, lieutenant-colonel, and colonel."

F. de Gissac, the same with whom General Trumbull had a passage at arms in *The Open Court* on the subject of "Chivalry," concludes an article in the *Waco News* on his late opponent, the ridiculer of modern imitations of the knighthood of old:

"To condense in one single sentence all these splendid panegyrics, so well deserved by the character and virtues of General Trumbull, and, at the same time, to bring our own modest tribute

to his noble grave, we cannot think of anything better than to say: He was chivalrous; he was a true knight."

Horace Traubel, whose controversy on Walt Whitman and the pensioning of nurses will be remembered, says in the *Conservator*:

"Henry D. Lloyd will not take it amiss if I quote from a private letter in which he does tribute to one whom men of whatever liberal stamp should hold in precious memory.

"General Trumbull was a very brave man and one who had that instinctive love of justice which is so admirable and so necessary in times like these.

"General Trumbull often went wrong, but he loved justice and spoke out everywhere for liberty as he understood that transcendent principle of life. I once had a controversy with him in *The Open Court*, in which vigorous statement was not spared on either side. He wrote me afterward as to that: 'You were so plucky and so right from your standpoint, I wished I could agree with you. I like a good antagonist.' Now that he is dead, America and freedom lose a substantial spokesman. We must not despair when such men depart. We need only feel thankful that they had once been given. No star really goes out, however we swim beyond its immediate orbit."

George Schumm in *Liberty* writes:

"A little over three years ago Gen. M. M. Trumbull wrote me, in his characteristic way, that he was suffering with that incurable malady 'invented by a fiend named Bright,' that his kit was packed, his knapsack slung, and that he was ready to march at any moment. But as he was a valiant soldier and fighting moreover under the skilled directions of his faithful companion, his wife, he kept his enemy at bay and continued to pursue his 'perilous trade' as an independent journalist, until only in April of the present year he wrote again (now in his sixty-ninth year), and surely without intending any pious implications: 'I am standing on the very edge of eternity and calmly looking out upon a prospective that is boundless, unfathomable, and inscrutable.' He was still afflicted with Bright's disease, but he knew that it was an unconquerable foe and that it could 'foreclose the mortgage' on him at any moment. And though his body was racked with pain, he closed his letter in the cheerful vein that, 'allowing for that small drawback,' he was enjoying himself well, and that he was 'very thankful that Dr. Bright, when he invented his dire disease, placed it in the kidneys instead of in the brain.'

"Only a month later the enemy rung his knell, and General Trumbull laid down his pen forever. Justice mourns one of her ablest champions, truth an enthusiastic lover, all good causes a chivalrous defender, and free spirits everywhere a most delightful friend and comrade."

After mentioning some events of General Trumbull's career, George Schumm emphasises his brave attitude in the anarchist case. He says:

"General Trumbull thoroughly detested the communistic ideal of society, but this fact did not blind him like so many others to the monstrous wrong that was perpetrated against those unfortunate men in the name of the State, and he chivalrously and without fee took up their defence in the court of public opinion, thus recalling Voltaire, who in a similar crisis from his retreat at Farney espoused the cause of the hapless Jean Calas."

The *Freidenker* of Milwaukee mentions among other facts relating to General Trumbull's life and works that "he offered to Governor Altgeld the cardinal arguments for his decision of opening to the remaining three victims of the anarchist case the doors of the penitentiary."

Liberty asks in an editorial note:

"How is it that *The Open Court's* mourners, in their sincere and appreciative estimates of the late General Trumbull's contributions to the various fields of human activity, refrained from mentioning his great, brave, and admirable work in defence of the "Chicago anarchists"? Was the omission purely accidental? It is impossible to believe it. Perhaps it was deemed well to avoid offending those who did not sympathise with his attitude on that important question, but such a course is in direct opposition to the teachings and practices of the dead worker. Surely even those of his friends who could not endorse his position must have admired the purity and nobility of his purpose and the moral courage displayed by him during the crisis."

The omission was not accidental. It was done because tact and respect for the family of our deceased friend demanded it. General Trumbull was neither an anarchist nor a socialist. His defence of the hapless seven anarchists[1] who had become victims of a misguided public sentiment was made on the ground of justice and of sympathy with the sufferers, not because of an agreement with their opinions. For his brave defence of the anarchists, General Trumbull has been so grossly misrepresented that we do not exaggerate when saying that his reputation suffered. But he, independent as he was, did not mind it. Consider only all the vexations which his wife had to suffer again and again, on account of the alleged anarchism of her husband, and every one will understand that the mere mention of the name "anarchist" at the funeral would have been harassing to Mrs. Trumbull. We honor Mr. Schilling for his self-restraint in omitting that which, as we believe, was burning on his soul. *Liberty* ought to know that a funeral is too sacred to use it in the interest of a party propaganda against the will and the wish of the bereaved family.

There is another criticism made. *Liberty* continues:

"How is it, further, that *The Open Court* mourners sought to convey the impression that General Trumbull was not a materialist and atheist?"

The truth is that General Trumbull changed his opinion. He remained as radical, fearless, and freethinking as ever to the last moment of his life; but he gave up the crude materialism of former years, which he did not hesitate to denounce in unmistakable terms as narrow and wrong, and he accepted the supernatural God of science, who is the God of aspiring humanity, of free thought, and of progress. P. C.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

ADULTERY.

It was at Jerusalem, at the feast of the dedication; and Jesus walked in the temple in Solomon's porch.

Then came certain of the Jews round about him,

[1] They are commonly called anarchists, and most of them were anarchists, not "socialists," as the peculiarly anarchistic weekly *Liberty* claims.

and said unto him, Rabbi, the chief priests and the elders and the scribes have taken counsel together, to put one of their number out of the Sanhedrim;

Forasmuch as it is written in our law that no priest shall be of the seed of an adulteress, and this one was not born in wedlock.

How sayest thou then: is it lawful to do this or no?

Jesus answered and said unto them, Oh! faithless and perverse generation; why tempt you me with your vain questions?

As it is written in Esaias, the prophet, Bring no more vain oblations, saith the Lord: incense is an abomination unto me; the new moons and sabbaths and appointed feasts my soul hateth.

Wash you, make you clean; put away the evil of your doings; seek judgment, relieve the oppressed, judge the fatherless.

And again it is written, The sins of the fathers shall be visited on the children unto the third and fourth generation.

But I say unto you, As the crackling of thorns under a pot, so is thy contention concerning fables and genealogies.

For marriage without love is more adulterous than love without marriage.

SAGACIOUS SATAN AND THE SILLY SINNER.

It happened unto me recently to pass a half hour or so in Heaven.

Whether in the body or out of the body I say not; but I was there all the same;

Yea, even as John in Patmos, when he had his revelation, was I there—in spirit.

And if any man among you seemeth to be wise, and doth claim that this was very different from being there,

Lo, I say unto that man, A mind that graspeth a situation hath more of a position than a carcass that holdeth a location.

And let not that man forget it.

Now, it came to pass that while I sat me down, certain spirits entered, and these came and sat over against me.

And they did introduce themselves unto me and were very affable, and did make me feel quite at home.

Insomuch that I did lose all my very natural embarrassment, and did chat for some time with them in a friendly way.

And whilst we chatted thus, behold there was a knock at the door, and one of the angels, whose name was Azrael, saith unto me, That is Satan's knock; wouldst thou like to see him?

Then saith I unto the angel, Verily, I would, in case no hurt shall come of it, for Satan hath a great reputation among us.

Then said Azrael unto me, It is one thing to be introduced to the Devil, and quite another to get hurt of him. See thou to that.

And I said, I will see to that. And the door opened and Satan came in.

And I perceived that Satan was of a smiling countenance. Wherefore I said unto him, Why art thou so jolly?

Then he smiled yet the more, and answered me, saying, He smileth most who succeedeth best; I was thinking how of late my kingdom was enlarged upon earth.

And I asked him to what particular enlargement he referred: Was it Tammany?

Nay, saith he, not that especially; Tammany have I always with me.

Then did I mention certain other matters, as Dr. Parkhurst's crusade, the silver question, the tariff, the liquor traffic, and the labor problem.

But it was none of these that caused Satan to be so exceeding jolly.

Thou tirest me, saith Satan, for verily these things are of the earth earthy, now dusty, and again muddy, as the weather permitteth.

Of a truth am I pleased because of the foolishness of man, which no weather seemeth to affect.

Now lettest thou me give unto thee a straight tip. Thou hast heard with thine ears, and thy fathers have declared unto thee that man hath a free will.

So if man were wise he would choose the Lord and his ways and not me and my ways;

For what shall it profit a man to gain the whole world and lose himself, and have no use for the world when he hath gained it?

So is it better to be wise than to be good;

For if he be wicked he may repent and be baptised and leave me, I was going to say, in the cold, but now I bethink me, quite otherwise.

But if he be silly, verily there is no help for him, and he cometh unto me quite naturally;

For man hath power over his own conduct, but verily hath he no power over his brains.

As it is written, (or ought to have been,) He hath made man not only male and female, but brainy and otherwise,—mostly otherwise.

Verily, the Lord knew this, for inasmuch as he hath made man free, it must be morally and not intellectually.

And so, no matter how good a man may be, if he be not wise, his goodness profitteth him nothing.

And that is what causeth me to be jolly; for man remembereth not that saying of the Lord: I was an hungered, and ye gave me no meat; I was in trouble, and ye gave me no sympathy; I was ill-natured, and ye gave me no soft answer.

Then saith I unto Satan, Hold on! Go slow, for thy memory faileth thee as to that quotation.

And Satan saith: Any poor devil that erreth ought verily to take correction whenever he findeth it. Be merciful therefore unto me and point out my fault.

Then saith I, There is no mention of any soft answer in the passage of Scripture that thou hast quoted.

Satan smiled, and saith: That may well be, seeing that I am not up in the Scriptures; but verily I know one soft answer, and it is thine own;

For what doth the language matter if peradventure thou gettest the idea? And what is a word but the sign of a sound? And what is a sound but the body of a meaning? Understandest thou me?

Then saith I: Satan, now gettest thou beyond thy depth, though it be the bottomless pit;

For verily have I been taught from my youth up the inerrancy of the Scriptures.

And Satan answered and saith unto me: That is why I smile;

If thou hadst been born again, thou hadst known the truth, and the truth had made thee free.

But now I must be going, but I shall see thee later on. Verily, I can do only the feasible, which in thy case seemeth not difficult.

And when Satan had gotten gone I asked the angel Azrael if he thought it prudent of the Lord to let him make so free around Heaven.

And then Azrael (curious as it may seem) smiled, but the smile was quite unlike Satan's, and saith: Shall the truth fear the Evil One?

Nay, but he who is true may get instruction from him. See thou to that.

Verily thou art in the way of truth. As Satan said himself, he can do only the feasible; but with the Lord and with them that love him the impossible is as easy as the inevitable.

SCIENCE AND PROGRESS.

PANIC BLUNDERS.

The rashness and recklessness of a panic-struck multitude would often be blessings in disguise, like the storms that stir the stagnant atmosphere of a coast-swamp, if their mismanaged energy were not, besides, almost sure to be misdirected. Near the convent of Montluc, in the highlands of the Cévennes, a French surveyor one evening saw the floods of a cloudburst dash down a mountain-side like an avalanche, and after reaching a place of safety, was horrified to see a troop of fugitives run at breakneck speed in a direction that would bring them directly in the path of the descending deluge. He shouted a warning, but the refugees had been misled by an echo of the rushing waters and only continued their flight with increased haste. The warnings of clear-sighted American patriots are equally lost upon the dupes of the Commonweal demagogues, who rush at panic speed in a fatally wrong direction. From the almost-reached vantage-ground of free trade and freedom from the curse of a meddlesome bureaucratic boodle-syndicate, they hasten into the direct path of the impending avalanche of communism, blinded by vague fears and deafened by the mob-echoed howl for Government pap. Their blind eagerness for the chains of a Bellamy workhouse despotism might be considered a sufficient proof that they do not deserve their freedom, and like Buffon's bats in the Catacombs, "must know best what is good for them," and the mental disgrace of their blunder is, indeed, eclipsed by the moral infamy of those who crawl under the yoke with their eyes open.

A SANCTUARY OF FREEDOM.

Far up in the highlands of the Athabaska River, the prairies of British North America are broken by a wilderness of pines, stretching a hundred miles north to Deer Lake, and east almost to to the shores of Hudson Bay,—a territory of some fifty thousand square miles, where cereals refuse to grow, but where individual enterprise, aided by a good axe and a berry-basket, might well contrive to keep frost and famine at bay. Capt. Lloyd Robertson's account of a recent trip through that stronghold of solitude ought to be welcomed by every lover of independence. The winters are extremely, almost arctically, severe, but the same frosts that kill out grain-crops will also keep out the slave-drivers of socialistic despotism; the pathless forests that insure the survival of the wolf and the pine-falcon, also offer a permanent refuge to men who decline to sell their freedom for the prerogatives of a Government workhouse-boss-in-chief. Twenty-eight inches of snow for seven months in the year, tend, no doubt, to hamper a hermit's freedom of motion, but can be abated on the precincts of the hermitage, and are, on the whole, preferable to perennial slavery. On the borders of Afghanistan there is a mountain-range that almost precludes the possibility of road-building by the frequency of snow-storms and the tremendous steepness of the summit-rocks. "Why, you could not get a provision-waggon across this pass," said the traveller Pallas, when his guide halted near the top of the cloud-capped ridge. "Oh, that's all right," said the native, "as long as the Russians can't get their artillery up, either."

COUNTER-RUFFIANS.

In the free-and-easy republic of the ocean, the over-multiplication of every aggressive monster is checked by the truculence of rival ogres, and on the same principle moral philosophers can see a beneficent tendency in the vindictiveness of such men as the Caserta brothers, who were visited by a committee of Texas White Caps and received their guests with a hail-storm of buckshot. The occasional confessions of these midnight reformers make it highly probable that their motives have something to do with the love of sport, not to say of mischief, and the established possibility of an intended victim contriving to get the trump-cards in a game of that sort would undoubtedly tend to moderate the zeal of such sportsmen.

HOTBEDS OF DISEASE.

The violent outbreak of the plague in the Chinese seaport-towns is a minor wonder compared with the fact that the police of those cities have contrived to keep the disease within anything like manageable bounds. A correspondent of the *North China Herald* describes the floating suburbs of Canton as labyrinths of galley-like dungeons, moored in a festering melange of garbage and sewer-fluids, and confining their tenants to cockpits where the supply of oxygen gets almost exhausted between sunset and midnight, leaving an atmosphere of concentrated miasma for the remaining hours of the night. Under the brooding rays of the midsummer sun fevers become epidemic, and the frightful rate of infant mortality saves poor parents the necessity of the rustic method for the removal of superfluous babies.

SENSITIVE TURKS.

The eight newspapers published in Constantinople in the Turkish and Arabian idioms, are under control of a Government censor, who shows his teeth at the first whisper of disloyal senti-

ments, and often orders the confiscation of an entire edition, reserve-files and all. Books, too, have to get the *imprimatur* of that Rhadamantus. before they can be offered for sale in the public book-shops, and violators of the press-laws can think themselves lucky if they get off with a fifty-dollar fine and a week in jail.

PRIMITIVE REPUBLICS.

The semi-despotic republics of Spanish America can, in certain respects, boast a free-and-easy state of affairs which our own country enjoyed only in the days of Daniel Boone. *Matanzas* (beast-fights) can be arranged by any picnic-manager, without the interference of a municipal moralist, and in Paraguay pedlars, who in Ohio would have to pay a licence of a hundred dollars a year, are not only tax-free, but exempted from bridge-toll, to give the settlers of sparsely-settled districts a chance to provide themselves with the commodities of civilised life.

TIMBER-FIENDS.

In the coast-range of California, timber-sharks are cutting down magnificent redwood trees for the sake of a few planks, leaving the rest of the wood to rot where it drops. Groves of considerable extent have thus been destroyed in Santa Cruz, Monterey, and other counties, where timber is already beginning to get so scarce that in a few years a tract of woodland will be a more valuable possession than a vineyard. Is our continent, after all, destined to share the fate of the Mediterranean coastlands? The progress of our forestry associations, though undeniable, is still discouragingly small, and Professor Goebel of Pittsburgh estimates that the number of trees planted on Arbor Days is only about one-twenty-five hundredth part of the aggregate destroyed year after year by wood-cutters and forest-fires. Irrigation and Dyrefurth's rain-charms will be of little avail against the consequences of that reckless waste. What part of North America can hope to escape the doom of climatic deterioration if sea-girt Asia Minor could become a desert?

FRENCH CLAIRVOYANTS.

The mind-reader Marlot has revived the Parisian miracle mania, and every *salon* is now trying to produce a mesmeric oracle of its own. The advertisement columns of half a dozen dailies are crowded with the addresses of the mystic fraternity, but female prophets are less abundant than on our own side of the Atlantic; within the last eighty years, at least, no clairvoyant has contrived to match the fame of the Pythoness Lenormand, who amassed a fortune by her successful peeps through the keyhole of the future, and is said to have predicted the career of Joachim Murat and the downfall of the first Napoleon.

SIGNS OF THE TIMES.

In Rome, the same city where Gordon Bruno was burned in 1600 and where only one hundred years ago Cagliostro was imprisoned for life on a charge of freemasonry, an enterprising publisher has just announced the third edition of Camillo Rocca's *Segreto del Pontificato*—"The Secret of the Papacy." "How shall we explain the fact," Macaulay asked in 1839, "that the power of the Roman Pontiff has survived the revolt of the Albigenses, the assaults of Protestantism and of the French Rationalists, and is gaining, rather than losing ground, in this age of critical research?" These questions Signor Rocca answers by the audacious theory that the votaries of the Vatican are attracted neither by the hope of heaven nor the love of truth half as much as by the charm of an intellectual *dolce far niente*, the lazy submission of reason to authority and the comfort of considering mental sloth a duty and virtue. "It is so pleasant," he says, "to be able to silence a charge of ignorance, stupidity, and mental emasculation by calling your opponent a heretic." The author then proceeds to demonstrate that the prestige of the Church has invariably declined in periods of intellectual revival, like that preceding the French revolution, and as invariably regained its lost ground during the far longer periods of reaction and mental indolence, *alias* indifferentism. The work abounds with diatribes against the leaders of that reaction, but the Church prudently continues to ignore both the book and its admirers, and the orthodox press contents itself with quizzing the patriotic zeal of the author, and pointing out the inconsistencies of some of his tenets.

FELIX L. OSWALD.

NOTES.

In reply to several inquiries from admirers of the late Gen. M. M. Trumbull, we state that at present the widow receives no pension. Friends intend to take steps in the matter, but nothing as yet has been attempted, and what will come of it we do not know.

The Messrs. Bickers & Son, Leicester Square, London, W. C., have put together in a small pamphlet some interesting press and personal opinions on the works of the late Constance Naden, which they publish. The opinions are both critical and complimentary, and give the reader a splendid insight into the character and genius of this lamented authoress. Miss Naden's philosophical works have been frequently mentioned in our pages.

We are informed that the Rev. T. C. F. Grumbine, who has championed the cause of spiritualism several times in *The Open Court*, has resigned his ministry at the Unitarian Church in Geneseo, Illinois, and expects to travel through the South and California this fall and winter as a spiritualistic lecturer. As his inclinations always tended in this direction, Mr. Grumbine will feel himself more in his element on the spiritualistic rostrum than in the pulpit. We may expect to hear from him again concerning his further development.

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RECOLLECTIONS OF VICTOR SCHŒLCHER.

BY THEODORE STANTON.

One day last winter I was calling on M. Barthélemy St. Hilaire, the venerable translator and expounder of Aristotle, when the conversation turned on Victor Schœlcher. "We were schoolmates at the Lyceum of Louis le Grand," he remarked, "from 1816 to 1822. We parted on leaving school, but met again in 1848 as members of the Constituent Assembly and later at the National Assembly of 1871, and now we are both in the Senate. One cannot praise too highly his generosity of heart, his courage, and his disinterestedness. But his political opinions have always been extreme and not very wise." The next day the papers announced the death of Victor Schœlcher at the advanced age of eighty-nine. By his demise France lost a remarkable historical figure, the cause of republicanism an ardent defender, and philanthropy a warm friend. But it is as the protector of the negro and as the liberator of the slaves in the French colonies, that Victor Schœlcher's name will be remembered by posterity.

M. Schœlcher once sent me a manuscript copy of a portion of Arago's memoirs which have not yet been published. This portion, however, was printed, through the kind offices of Schœlcher, in the *Liberty Bell* of 1851, I believe. The extract in question is Arago's account of how the decree of emancipation was brought about, Arago being then Minister for the Second Republic. In the margin of the manuscript, opposite the decree of emancipation, Schœlcher has written with his own hand: "At the end of my conversation with Arago, I drew up on a corner of his table the text of this decree, and he immediately sent it to the *Journal Officiel*, where it appeared on March 4, 1848."

On December 25, 1890, M. Schœlcher wrote me as follows:

"Very Dear Mr. Stanton:

"Let me remind you that when I spoke of writing the 'Life of Toussaint Louverture,' you promised me to translate it into English if our worthy friend, Mr. Frederick Douglass, would consent to add to your translation an Introduction, presenting the book to the American public. Now, the book has appeared and has met with some success. You are doubtless in communication with the excellent and worthy Mr. Douglass, who is to-day United States Minister to Hayti. Would you be kind enough to learn from him if he is still disposed to prepare this Introduction, for which I would be particularly obliged to him? I would be happy, with your assistance and his, which would add new value to my book, to make known in the United States and to its large black population, a negro who grandly ennobled his race in attaining the position of what is called 'a great man.' If you are good enough to communicate my letter to the excellent Mr. Douglass, tell him, I beg of you, that I have not forgotten him. I am going to ask my publisher to send him a copy of my book. I regret that I did not do so at the moment when it appeared.

With thanks and much affection,

V. Schœlcher."

In another letter on the same subject he said:

"My best compliments to our good friend Frederick Douglass. Will you kindly send him a copy of my book? I request M. Ollendorff to send it to you. Surely Frederick Douglass must have the life of 'Toussaint Louverture' by Victor Schœlcher."

These letters brought the following one from Mr. Douglass:

"My Dear Mr. Stanton:

I am very glad to know that our venerable friend, Senator Schœlcher, has completed his 'Life of Toussaint.' Considering his great age and the many demands upon his time as a statesman, it is something of a surprise to me, that he has found leisure and strength to devote to this work. I have no doubt that the book will be a valuable addition to what we already know of the life, character, and career of the marvellous man, and will do much towards lifting the heavy cloud of prejudice which envelops the African race. [Toussaint's life and achievements are a great fact. He was a genuine negro, and there is no robbing the race of the good influence of his example. If a race can produce one man of the character of that illustrious individual, it raises a strong presumption of its ability to give birth to more of the same mental and moral mould. It does not appear that he was indebted to any other than negro blood for his composition and traits, and hence the negro may claim him as a typical illustration of what is possible to the negro race. Among the greatest warriors, patriots, and statesmen of modern time, his character and his achievements rank with the highest.] I know no Frenchman at this period so likely to do justice to the noble qualities of Toussaint Louverture as Senator Schœlcher, the statesman, who in the tempest and whirlwind of a mighty revolution, seized the occasion to liberate all the slaves of the French colonies. I shall be most happy to see his work translated into English. I fear, however, that my appointment as Minister Resident and Consul-General to Hayti, and the work of preparing for the same, will make it impossible for me to write an Introduction to the English edition as you request. If, however, I can find time between now and my departure for Hayti, I will write the Introduction and send it to you."

In April, 1890, Mr. Douglass sent me from Port au Prince a most interesting essay on Toussaint Lou-

verture, from which I make this extract concerning M. Schœlcher, whom Mr. Douglass met several times during his visit to Paris in the year 1887:

"I may mention the surprise I felt in finding in Paris such a house as his. The room in which I found myself seated and where M. Schœlcher keeps his busy hands and brain at work, was largely decorated with the emblems of slavery. There were old slave whips which had been used on the backs of slaves in the French colonies. On the walls were handcuffs, broken chains, fetters, and iron collars with sharp prongs which had galled the necks and limbs of despairing bondmen, but which now gall them no more. These barbarous implements of a past condition were sent to M. Schœlcher by negroes from the colonies in grateful recognition of his instrumentality in setting them free. . . . Several colored men called upon Senator Schœlcher on the mornings of my visits. I was pleased to observe that his manner towards them had in it no show of patronage. He received them as one gentleman should receive another, with dignified cordiality."

The following extract is from an earlier letter from Mr. Douglass, written during his visit in Paris:

"I send you herewith the substance of my little speech, when at the Senate House you presented me to the notice of the venerable Senator Schœlcher, the friend of the oppressed and enslaved, and of universal liberty. I shall never forget the meeting we had at his house a few days later with that grand old man, blest with recollections of a long life of noble deeds, surrounded in his home with broken chains and fetters which had once bound the bruised limbs of enslaved men and women, and with so many tokens of gratitude from those he succored and relieved. In respect of him I can say with Burns, as regards his future:

"'With such as he, where'er he be,
May I be saved or lost.'"

The "little speech," which Mr. Douglass mentions, figures in my autographic collection, and was as follows:

"Sir—I have met the noble leader of the abolition of slavery in England, Thomas Clarkson, who was then in his eighty-sixth year. I have long known the leader of the abolition movement in America, William Lloyd Garrison, and I am very happy now that I see the emancipator of the slaves in all the French colonies."

When the "Life of William Lloyd Garrison" appeared, in which, by the way, Schœlcher is mentioned two or three times, he wrote to me:

"Many thanks to you for having called my attention to the book of Mr. Garrison's sons. In the first place, I beg of you to try and have me sent a copy. I would be happy, very happy to read it. Those gentlemen had good reasons to write the life of their worthy father. Garrison was a good man *par excellence*. He employed a great part of his existence in combating slavery with as much courage as admirable persistence. He is one of those who have the most contributed to purge his country of this hideous social plague, which dishonored it. I may say this with assurance, because I long followed his labors with a veritable admiration. Glory to him!

"The authors are mistaken, however, in saying that I was Minister of the Colonies. The grand Arago was then Minister of Marine and the Colonies. I was only his Under-Secretary of State, and it was as such that I acted."

I find in my papers a copy of the following letter with this inscription at the head, in the handwriting of M. Schœlcher: "Lettre de Victor Hugo à Victor Schœlcher." I do not know whether it has ever been printed; and unless I am mistaken it is this letter from the poet which is framed and hanging in Schœlcher's library. Here it is:

"HAUTEVILLE HOUSE, November 17, 1869.

"You are right to love me a little. You are one of the men who occupy the most sweetly my thoughts in this time of abjection and night. You are at one and the same time haughtiness and light. I love you as a standard-bearer and as a torch-bearer. This young man, M Bellier, is really charming and noble; coming with your name on his lips, he had the true sesame to open my door. So he was warmly received at table, and in shaking hands with him, it seemed to us that you felt it. Work; make good, beautiful works, and keep well. France is not ailing when men like you are in health. For France is not the Empire; it is not the sad generation which is passing away; France is human liberty; France is universal light. Be assured that all goes well. The Republic is infallible for peoples, inevitable for kings. It is the future. I grasp your two hands. VICTOR HUGO."

When the friends of Theodore Parker were raising the money for the medallion by Story, now found on the headstone in the Florence cemetery, and whose inauguration I described at the time in *The Open Court*, Schœlcher sent this little note, written in English:

"My dear Mr. Stanton: Of course you may put me down on the list of subscribers to the Theodore Parker Fund. In haste, very truly yours, VICTOR SCHŒLCHER."

But Schœlcher went far beyond Parker in the domain of religion. He was an out-and-out atheist. M. de Pressensé once said of him: "Schœlcher is an atheist who makes one believe that there is a God." "I go farther," wrote in the *Temps*, the other day, his close friend, M. Legouvé; "Schœlcher was an atheist who believed in God."

This question of religion used to be one of the favorite topics of conversation when Victor Hugo and Schœlcher met. Schœlcher once told me how, when one day he was on his way to see the poet, it began to snow quite hard. "You say, there is no God?" began Victor Hugo, as Schœlcher entered the drawing-room; "who else could have made those beautiful crystals?" continued the poet, pointing to the melting flakes on his visitor's coat.

Schœlcher's reply came quick and sharp: "If there were a good God in heaven he would never have had an old man like me caught in such a storm."

One more anecdote of "the two Victors," told me yesterday by a Deputy, who knew them both, and I close this very incomplete sketch of this grand man. The anecdote is possibly not true, or, at least, very much exaggerated. But as it is typical of a certain side of Victor Hugo's character, it may be worth the telling.

It appears that Victor Hugo and Schœlcher were one day in an omnibus, during the development of the *coup d'état* of December 2. The vehicle was stopped by the passing of a company of soldiers carrying out

the stringent orders of the conspirators. Schœlcher, whose indomitable courage is noted on more than one page of French history, suddenly threw up the window of the omnibus, and cried out at the top of his voice: "Down with the Dictator! Down with the Dictator!" Whereupon Victor Hugo pulled him back inside and exclaimed: "That's foolhardy; why, we may be all shot!" The next day when they met, Victor Hugo referred to "our act of bravery." Two or three years later they met again, this time in exile, when coming back to this event, Hugo actually expressed the opinion that "I (Hugo) deserved some credit for my courage, displayed in that omnibus, in face of a line of loaded rifles!"

PRISON OR CITADEL—WHICH?

BY FRANCIS C. RUSSELL.

Not long ago I stood by the casket of a dear friend whose soul had entered into its larger mansion. Others also stood by. Some were bound to the dead by the intimate relations of family life and were suffering the pangs that must needs accompany the disruption of tender and deep-seated ties. All of us were full of the emotions and thoughts native to an occasion so solemn and so apt to move heart and mind. We thought of the man whose body lay there in our midst, of his worth and work. For he was a man of distinguished excellence in many ways honorable to mention. But above all he was a *lover*, a great-hearted and large-minded *lover* who had devoted his talents to the service of *love's* justice. "Everybody loves a lover," and we who knew him well loved him with an affection of honor, the measure of which was not wholly revealed to us until we found he was dead. Some were asked to speak to us words befitting the occasion, and so they did. They spoke of the traits and excellences of our dead friend. These we already knew, but we were glad to hear them told and retold. We could not lay away that dear body without testifying to the worth it had enshrined.

But on such an occasion certain great thoughts attend. We cannot avoid them if we would. Out of the very depths of our life are they born, and dead indeed would we be were they absent. So those who there voiced our reflexions spoke of these thoughts also: of their frame, intent, and import, as the same appeared to them and to our dead friend. One of our voices, borne by one whom we all also love because he too is a lover with great gifts which he holds ready for love's service, was moved to say: "It seems to me that could our dead friend direct my tongue, he would wish me to say of nim as I would hope he would speak of me were I beneath his coffin-lid and he standing by my side: that as to the great questions of a Deity and a life-again he did not know, and not knowing he would not guess."

In so saying, the speaker was in no wise untrue to the dead or to the fitnesses of the occasion. No such thought, but a remark of quite another kind seems to me to push forward on the heels of the protest thus framed by the speaker. It is this:

Is it *well* to make of *knowledge* a *prison-house* for the soul of man?

Knowledge—that is to say, knowledge itself—is divine; a divinity worshipful without abatement or disparity. In no jot or tittle must detraction be made from its sovereign authority or from the devotion paid to it. It nourishes the soul-life and the soul-growth with the strong meat of an assurance, complete and perfect.

But the soul of man has more than one function and more than one need. It not merely *knows*. It *loves*, it *admires*, it *hopes*, it *aspires*, and it also *grieves*, *dreads*, and *fears*. Driven by such impulses and drawn by such solicitations, the soul of man reaches out probing and groping for stays, sustenance, and requital. Naturally and insuperably it asks for these things. Some of these quests go out from the soul with a pleading that will not be denied. But present knowledge is utterly unable to satisfy such quests. It cannot even appease some of them, the most urgent.

In this exigency it is the counsel of some that we starve the soul and let all those soul-functions die out that cannot prosper on knowledge alone, indeed that cannot thrive on present knowledge and the hope of its gradual increase. Their commandment is, Thou shalt not guess. Thou shalt not believe unless thou canst show us premises that justify your conclusion as a probable result. If thou violate this commandment thou shalt suffer the imputation of an ill-governed soul-life.

Well, as for me, I do not thus mistake the character of knowledge. Not a dungeon, but a strong fortress from which to sally out and upon which to rally, is knowledge to me. If I am led to believe on the being of a being that ensouls the universe as my soul ensouls me, I see as yet no reason for suppressing that belief. Most certainly my lack of that degree of assurance that I can call knowledge is no reason. To suppress my belief on that account would seem to me no less than to install ignorance as a co-ordinate authority with knowledge. But I do not, as the so-called agnostics are prone to allege of such as I, say I *know* God exists. I believe, I trust, I have faith that such is the case, and there at present, and, so far as I can see, for a long while, I must rest.

But some one may exclaim, Why should you believe without any reason for the same? Ah! but stop right there, my friend, I have not said that I have

no reason for my belief. I only said that that belief that is not knowledge may justly obtain. It should be observed in the first place that beliefs do not arise or obtain unless there is some reason, good, bad, or indifferent, that induces or sustains them. To suppose otherwise would be to suppose an effect without any cause. The reasons for belief may be incompetent, or insufficient, or both, but a belief sustained by no reason whatever is an impossibility. If on any faithful examination of our soul-estate we find that we have a belief of this or of that sort, we may be sure that the same has reasons of some kind for its presence.

Again, the reasons for this or for that belief are often so latent in our nature, or so singly slight that any attempt to assign them is defeated. We do not possess any very exhaustive inventory of or index to our soul-estate. Yet, nevertheless, these latent and slight reasons for belief may conspire together in a manifold of unconscious or subconscious argument so cogent as to be altogether invincible. Call such tendencies and results instincts if you will. Why should we not trust our instincts? Have they not brought us safely and prosperously up out of our formerness to our better and still better intelligence? Did not intelligence itself begin as mere feeling? Will that which cared for us when we were children wholly betray us in our manhood?

I would not, however, have it thought that we must rely on grounds so intangible as this for the belief in God. Of assignable reasons there are several, one only of which will I mention. In the void of countervailing reasons it is to my mind abundantly sufficient to justify trust in God. It is this. Belief in the being of a being that modulates the All as a centered organic unitary whole, is *salutary* for soul-life and soul-growth. Be very careful not to take me as here intending a God that is a person or a God that is good, etc., etc. Personality, goodness, etc., etc., I leave entirely out of view. At present I only claim the mere *existence* of God, that is, that a being exists of some sort, so as to orient the All as a single but manifold whole. To believe thus-like is to be a monist, and I do not see how any monist can believe otherwise.

Now if we really believe in such a being why should we not name it God? Is not such the proper name for that being? Why should we say that not *knowing* of the existence of such a being we will not guess, when our believing is no other than a well-advised guessing?

When we come to know ourselves that we do truly believe in God in spite of our refusal to him of his proper name, we find that we have truly only come to our own. Our soul-life finds nourishment and grows in the clear light thus appropriated.

But how as to the belief in a life-again? Now we either have it or we have it not. If we have it not, then any question of suppressing it in ourselves is superfluous. If, however, we have it, or if others have it, must we suppress or discountenance it? If Yes, then Why? Because we do not *know*, will you say? In my remarks on the belief in God I hope I have given reasons for holding that ignorance is no reason at all. But knowledge may forbid or discountenance a belief. Does it do this to the belief in a life-again? If so, how, and by what tokens? If, however, and as on all sides it seems to be confessed, knowledge neither forbids nor discountenances this belief, where is the justification for tearing it out of the hearts of those who cherish it? We ought, of course, to be honest. If we lack belief in this life-again we may not say we have it. Perhaps we may not even imply that we have it. If such conduct is calculated to shake the confidence of those who believe, as no doubt it is in greater or less degree, then our justification is found in our duty to be honest. We are, however, seldom really called upon to report the mere state of our belief. Unless we are so called upon no mere plea of honesty will avail to justify us for marring the faith of those who do believe. Because we are *honest* shall there therefore be no more rest and comfort? Usually, when the belief in a life-again needs to be spoken of, we may tell the truth in honesty, and when we tell the truth let us tell the whole truth and nothing but the truth, which is that, although we personally may be weak in the faith or wholly lacking in it, the same is neither forbidden nor discountenanced by knowledge. We may say we do not *know* and therefore it *may* be, notwithstanding our disbelief or misgivings. If we be in truth honest and sincere, that honesty and sincerity cannot possibly suffer any prejudice by so ordering our words.

But I think we may do vastly better than this. The belief in a life-again is warranted by the same reason that I gave for the belief in God. It fosters soul-life and soul-growth. It brings no prejudice whatever to knowledge while it gives scope to all the other *salutary* functions of the soul. It its atmosphere love, hope, and aspiration expand and thrive. It assuages the griefs and disappointments of life, and, under knowledge it need not cast any shadow of dread or fear. The exigences of ecclesiasticism have led it to make up a prospectus of the life-again that of necessity makes of death the King of Terrors. In so doing it has indicted itself of the most heinous crime against humanity that can be committed. But the hideous nightmare of this imposture is fast passing away, never more to return. We are now free to formulate our life-again according to nature and knowledge, and so to be as believable as possible. What though such beliefs be but dreams? Is it not well with us when we dream beautiful dreams? Who ordained it, and by

what warrant, that truth must be nothing but matter of fact?

Again, what is it that is *good*? Reckon it how you will, in the last analysis the only good thing must be seen to be *life*. All other good things are good only in virtue of their relation to *life*. So far as living beings are concerned the final cause of the All is *life*. Not mere existence, but *life*, fulness of *life*.

> "Whatever crazy sorrow saith,
> No life that breathes with human breath
> Has ever truly longed for death.
>
> "'Tis life of which our nerves are scant,
> Oh, life, not death for which we pant,
> More life, and fuller that we want."

Physical life. Mental life. Moral life. Length of life. Breadth of life. Depth of life. In short, manifoldness and amplitude of life, this and these sum up all that is good for us, and the privation thereof is the only evil.

If there comes to our souls the feeling that death need not finally part us from our lives, our loves, our hopes, and our aspirations; if such a feeling abides with others, shall we, because we are ignorant, because merely we do not *know*, shall we order ourselves and others not to guess, not to believe?

Voltaire used to say, that if God did not exist it would be well for man to invent him. So it may well be said that whether or not we shall live again, it is well, very, very well, for man to believe that such is the case. Let us live all we can. Knowledge is of not the slightest consequence but that it fosters life. When knowledge depresses life it is a bane to be rejected like any other evil.

Because we do not *know* the contrary let us believe in God, and if we possibly can, let us believe and make others believe, that we shall live again after death.

And let us not put knowledge to foreign uses, but while honoring it for its service to life let us use it as a citadel and not as a prison for the soul.

IMMORTALITY A SCIENTIFIC TRUTH.

In *The Agnostic Journal* (Vol. XXXIV, No. 26) Dr. Robert Lewins criticises the attitude of *The Open Court* on the question of Theism and Immortality as follows:

"In a late number of the above excellent and widely circulating serial[1] is a most genial and generous tribute to the memory of the late General Trumbull, a constant contributor to its pages, and who, by all accounts, seems to have been a grand fellow both with pen and sword. But, sincere as is my respect for its editor, whose cultured and genuine Freethought is as unexceptionable as it is rare, I desire in this letter to indicate a flaw in the presentation of the argument for the resurrection of the body for which Christianity is also responsible, which, in the present *fin de siècle* epoch, vitiates its conclusion by a reactionary principle characteristic of the eighteenth century. My arraignment applies to the claim made, not so much by the editor as by his contributors, to immortality for their dead hero, and, indeed, also for the resurrection of his body—a claim not more ghastly and grotesque than it is demonstrably absurd. For, if this world is only relative and phenomenal or phantasmal, how can it be possible to 'shake hands' (!) with General Trumbull, or any other man, in any other world but the present one? The assumption is utterly untenable, though held by Kant, Voltaire, Rousseau, and even, though more obscurely, by Frederick the Great and David Hume, whose influence on the literature, history, and politics of their age was so conspicuous. Spite of his vast culture, and probably as its consequence, a remnant of chromatic metaphysics still seems to cling to Dr. Carus—from which, more or less, barrier to achromatic reality, after much experience of Teuton thought, I never yet knew a German to be completely free. English thought, when genuine and straightforward, is much more exempt from such misleading substitutes. It seems thus perfectly clear and above board that, if the hylic hypothesis—to say nothing, on this occasion, of the hylo-ideal synthesis—be factual, all forms of Spiritualism or Animism, including Theism, Demonism, and posthumous human existence, must be relegated to the sphere, already so extensive, of our racial credulity and superstition. Theism, in any shape, is now what serpent-worship—at one time a much more universal creed than any extant or extinct faith, including that of Christendom—is represented to be in the Hexateuch—viz., Fiendism or *Kako*-demonism."

Dr. Lewins should have been more charitable in the interpretation of the words of the various speakers. Mr. Schilling said:

"And now, shall we never meet again? I think we shall."

He then added the poetical expression of the departed one's "extending a welcome hand on the opposite bank," and Colonel Sexton went so far as to describe how St. Peter calls out the guards to salute the General.

Dr. Lewins's remarks may well be compared with the comments of Mr. Francis C. Russell in his article "Prison or Citadel—Which?" (page 4153 of the present number) on Mr. Clarence S. Darrow's words, which affected his various listeners in various ways. While some were delighted with Mr. Darrow's fine sentiment of sympathy and love for his deceased friend, others found his agnostic mode of comfort depressing and not elevating.

Mr. Darrow said of General Trumbull, picturing him not as he was but as he thought he might have been:[1]

"He did not know and would not guess. . . . As to the great questions of a deity and immortal life, he meekly and reverently bowed his head in the presence of this infinite mystery and admitted that the wisdom of the sages was no more than the foolishness of babes; to these old questions he could answer neither yes nor no, but confessing his ignorance of the great problem of the ages, he refused to guess where he could not know."

The religion of *The Open Court* is in sympathy with Mr. Russell's sentiment of fostering life and the fulness of life; it is in sympathy also with Mr. Schilling's

[1] Meaning *The Open Court*.

[1] General Trumbull was no agnostic. We have only to remind our readers of his expression "agnostics and other sticks."

longing for the immortality of our dear ones, and at the same time with the demands of Dr. Lewins of rejecting all untenable assumptions. Yet we reject the basis upon which Mr. Russell grounds his faith in immortality; we are not satisfied with Mr. Darrow's surrender of the problem as either unsolved or unsolvable, and we cannot accept Dr. Lewins's conclusion of the annihilation of the soul in death. We claim that the religious problem which depends upon the recognition of the true nature of man's soul has been solved in the religion of science and that from this standpoint we can afford to be just toward all the various positions taken by honest searchers for truth. We remain in close contact with the old orthodoxy of traditional dogmatism not less than the radical principles of the boldest freethought, with the scientist's diffidence in creeds as also with the pious assurance of the faithful. There is always some point in which their aspirations are turned in the right direction, and in a certain sense we agree with all of them. Let us only be charitable and try to understand one another better; and we shall agree better than could be anticipated.

Mr. Russell says:

"Is it not well with us when we dream beautiful dreams? . . .

"Voltaire used to say, that if God did not exist it would be well for man to invent him. . . .

"Because we do not *know* the contrary let us believe in God, and, if we possibly can, let us believe and make others believe, that we shall live again after death."

No, it is not well for us when we dream beautiful dreams. Let us not dream, but let us search for the truth. And let us trust in truth. Let us cherish the confidence that the truth is best, that it is most beautiful, and that life is nothing unless its fulness be truth. When a dream that has no truth in it seems to us more beautiful, more comforting, more life-sustaining than the truth, let us revise both our notions of beauty, comfort, and life, and our conception of the truth. If our faith in God and immortality must be grounded upon the fact that we do not know the contrary, it is built upon sand.

However, although we disagree in this point of finding a negative argument in our not-knowing, we gladly indorse Mr. Russell's proposition to make a citadel of knowledge, and not a prison. Indeed, knowledge can never be a prison. Knowledge is power, and if anything can, knowledge must give us fulness of life.

Agnosticism makes an attempt to use ignorance as a citadel, but ignorance is, and will always remain, a prison. The agnostic's hope is so intrenched in pusillanimity that all comfort is gone. If that were the final word of science and philosophy, we should be shut up in eternal darkness, and our condition would be pitiable indeed. There would be no use of aspiring onward, of prospering, of learning, and of advancing to a higher plane, for the existence of light is denied, scientific insight into the central problem of life would have to be abandoned, and eternal ignorance would be our fate.

Dr. Lewins arraigns me, although he does it in a kind and sympathetic spirit, for "a remnant of chromatic metaphysics," because, taking my stand upon the revelation of the facts of nature and accepting nothing as truth except that which can be scientifically demonstrated, I speak of the continued life of our dead heroes and maintain the immortality of the soul.

Some time ago the following two questions were put to me:

"Do you believe in the survival of man as a distinct individuality after bodily dissolution?

"Do you believe that man after such bodily dissolution, can, as a distinct, conscious, intelligent being communicate with those who still live in the flesh?"

My reply was this:

"In answer to the first question I should say: I understand by individuality not only man's soul, viz., his sensations, thoughts, and ideals, but his entire existence, including his bones, muscles, sinews, and all the material particles of which at a given time his body consists. Accordingly, I believe in the final dissolution of his individuality, and count it no loss; but I believe at the same time in the survival of the most essential part of man's individuality, I believe in the survival of man's soul.

"To the second question I should answer: Not only do the souls of our dead continue to communicate with those who still live in the flesh, but they are present in their minds, and they will form parts of the souls of the generations to come. The relation between the dead and the living is too intimate to be called a communication. The souls of the dead form an ever-living presence in the souls of the living. Progress and evolution to higher stages is only possible because the souls of former generations continue to live If the souls of our ancestors were not with us and in us, what a wretched, and, indeed, merely amœboid existence would we lead."

Dr. Lewins can be assured there is not an iota of metaphysicism or animism left in this view of immortality. But perhaps he will say that this is no immortality; that this is a proposition which teaches the final annihilation of man's personality in death? If he does, he is blind to facts and fails to recognise the importance of that which survives of us, which is not a mere trace of it, but the essence of our being, our very soul, the substance and worth of our personality.

In one sense, transiency is the order of the universe, in another sense, permanency. The present changes into the past, never to be the present again; it passes away. Every happening in the physical world takes place never to happen again in exactly the same way and under the very same circumstances. But being embodied in the past, it remains an actual part of the constitution of the world. It has become a factor for all the future, and will be a determinant of any possible present to come. In the same way

every act of ours passes away, yet it is immortalised: it remains an indelible reality of our life, influencing and shaping our fate. Every thought of ours once thought and buried in the past of former years is, in a certain sense, gone forever, but in another sense, it remains an everpresent reality, and our soul is a grand structure consisting of the immortalised precipitate of the sentiments, ideas, and acts done in past years, dating back to the beginning of soul-life upon earth.

What is true of all events in the physical world and of the facts of our psychical existence, is true also of whole human lives. Nothing is lost in this world, least of all a human soul. To be gathered to our fathers does not mean to be buried in the ground, but to be embodied as a living element into the evergrowing organism of mankind. There we are preserved as a living presence with all our peculiarities and with the entire personality of our being. Death is a dissolution of our body; it is the end of our career; it is the discontinuance of our activity in this individuality of ours. Yet is it no annihilation of our thoughts, of our soul, of our spiritual existence, of ourselves. We continue after death as much as the memory of a useful knowledge which we have learned in the days of our youth remains a living presence with us throughout life.

Thus we may lament the premature cutting off of a valuable life by death, but we cannot complain about the annihilation of a man's soul; for it continues, it is here with us and in us. We might as well complain of the transiency of our school-years, forgetful of the fact that the knowledge we have acquired is permanent.

The past lives on in the present and the dead continue in the living. Every soul is and remains for ever a citizen of that invisible empire of spiritual existence which is always coming, always near at hand, and always developing and growing. This empire of spiritual life is not a phantom but an actuality. If anything is real, *it* is real. It is the kingdom of God of which Jesus said that it is within us.

Now, in the face of facts and in the face of the important part which the continuance of the soul plays in our life, shall we at the funeral of our dead step forward and preach the annihilation of their existence? Would Dr. Lewins advise us to say at the open grave of a friend that the belief in immortality is a remnant of metaphysics and animism to be relegated to the sphere of superstition? No! Spiritual facts are not less real than rocks and trees. Immortality is a truth as much as the existence of man's soul; and a denial of it will warp our entire world-conception.

As it is difficult for the uneducated mass of mankind to recognise the reality of the truth of immortality and to appreciate its paramount importance, the various religions have taught it in allegories which in Christianity have been crystallised into the dogma of resurrection. The doctrine of resurrection is a parable, and the parable contains allegorical expressions which are crude and inappropriate; but the idea contained in it is a truth. Science rejects the assumption of a ghost-soul and also of a ghost-immortality, but science establishes at the same time the reality of the continuance of man's soul after death.

The immortality of the soul as taught by the religion of science is as complete and full as any faithful Christian can reasonably expect. It is not less than the ghost-immortality of an impossible dualism; it is not ghastly, not grotesque, not absurd, but noble, elevating, and comforting.

The immortality of the soul, such as the religion of science proposes, is right here in this actual world of ours, not in a celestial Utopia; it is real and not illusory; it is a fact and not a dream; it is an undeniable truth and not, as Voltaire, Frederick the Great, and his friends thought, a grand *peut être*. P. C.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

THE PARABLES OF THE SISTERS.

Now in those days many came unto Jesus asking of him what they should do to be saved;

And while they were gathered together in one place a great multitude, the disciples also being among them, Jesus spake this parable unto them:

Behold there was a certain rich man which had two daughters, and one was named Martha, and one was named Mary.

The same was a just man and one who feared God and kept his commandments;

And he was righteous in all his ways unto his neighbor, and unto the stranger that was within his gates, and unto them of his own household.

Now Martha said in her heart, My father dealeth not aright with me, for he suffereth me not to go and come as I will.

And she asked of her father that he would suffer her to go into the city yet once again.

And her father answering, saith unto her, Nay, not so, my daughter, tarry at home, for afore time when thou wentest out saying, I will go to one place, behold thou didst go to seven places;

And when thou didst say unto me, I will return at the fourth hour, behold thou didst not return until the ninth hour.

And Martha was wroth, and saith unto her father, Who made thee to be lord over me? Am I not of full age?

Then saith the father unto her, Daughter, thy heart is not right in the sight of God.

But Martha reviled her father, and saith unto him, I know then that thou art an hard man.

And while she was yet speaking Mary came unto her father, saying, Father, suffer me, I pray thee, to go into the city for a brief space that I make merry in the house of my friend.

And her father saith unto her, Until what hour?

And Mary answered, Until the fourth hour.

Then saith her father, Go, my daughter, and make merry with thy friend. But and if thou desirest to go to yet another house, I bid thee go.

And I bid thee also when the fourth hour cometh, and thou desirest to tarry longer, that thou mayest tarry longer even until the ninth hour.

Then Martha lifted up her voice and reviled her sister, and saith unto her, Thou hypocrite, thou sayest these things for fear of thy father, or for a reward of thine hypocrisy.

And unto her father she saith, Am I not the elder? Why provokest thou me to wrath?

Then saith her father unto her, Martha, why revilest thou thy sister, calling her an hypocrite?

She feareth me not, nay, but rather loveth me, for she loveth the right. And whosoever loveth me loveth the right, and doeth right.

A house divided against itself is brought to desolation; but love endureth all things; submitteth to all things; obeyeth all things; and is made free of all things.

And this is the freedom with which I have made thy sister free, that inasmuch as she hath trusted me, do I trust her.

IN MEMORIAM.

TO GEN. M. M. TRUMBULL.

BY VOLTAIRINE DE CLEYRE.

Back to thy breast, O Mother, turns thy child,
He whom thou garmentedst in steel of truth,
And sent forth, strong in the glad heart of youth,
To sing the wakening song in ears beguiled
By tyrants' promises and flatterers' smiles;
These searched his eyes, and knew nor threats nor wiles
Might shake the steady stars within their blue,
Nor win one truckling word from off those lips,—
No—not for gold, nor praise, nor aught men do
To dash the Sun of Honor with eclipse,
O Mother Liberty, those eyes are dark,
And the brave lips are white and cold and dumb;
But fair in other souls, thro' time to come,
Fanned by thy breath glows the Immortal Spark.

BOOK NOTICES.

We announce the publication of the first number of Volume II of "The Religion of Science Library," which, as our readers will remember, is a bi-monthly publication, in book form, paper covers, of important articles which have appeared in *The Open Court* and of independent works before published by The Open Court Publishing Company. The number for July, 1894, consists of two half-numbers, namely, Dr. Alfred Binet's treatise on *Double Consciousness* (93 pages), and Dr. Paul Carus's essay on *The Nature of the State* (indexed, 56 pages), which appeared some time ago in the columns of *The Open Court*. Of *The Nature of the State* Mr. C. C. Bonney, the originator of the recent World's Parliament of Religions, writes:

"I greatly admire the clearness and strength of your style, "and strongly wish that the views you have so well expressed "could be printed in the public press from one end of our country "to the other. I think there is no other subject on which clear "thinking is more urgently needed than the Nature and Authority "of the Government."

"The Religion of Science Library," now contains Dr. Paul Carus's *Religion of Science*, F. Max Müller's *Three Lectures on the Science of Thought* and *Three Lectures on the Science of Language*, Th. Ribot's *Diseases of Personality* and *Psychology of Attention*, and Alfred Binet's *Psychic Life of Micro-Organisms*. (Yearly $1 50; whole numbers 25 cts.; half numbers 15 cts)

The Freethinkers' Magazine, editor, Mr. H. L. Green, formerly of Buffalo, has been transferred to Chicago, 150 Illinois street, where the readers and contributors of this enterprising magazine may now address their communications. The contents of the May and June number of *The Freethinkers' Magazine* are as follows: "John R. Charlesworth," frontispiece; "From Protoplasm to Man"; "The Glories of War," by Cyrus Coolridge: "Duty of the Community Toward the Unemployed," by Daniel K. Tenney; "Is There a God?" by Otto Wettstein. Strenuous endeavors are being made to increase the magazine's subscription-list, which the change of its place of publication will no doubt favor.

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THE FAILURE OF LOCAL GOVERNMENT.

BY PROF. E. D. COPE.

It is generally understood that government has been established for the purpose of securing safety to life and property, and the protection of mankind from interruption and loss while in the pursuit of their avocations. During the recent labor strikes there has been a lamentable failure on the part of numerous officials of the city and State governments where these strikes have occurred, to secure these necessary benefits for which government exists. This has resulted from incompetency on the part of these officials, and in some instances from sympathy with the criminal acts of the strikers. Under the head of incompetency I include that demagoguery which fears to execute the law, when law-breakers are sufficiently numerous to constitute an important body of voters.

Governor Waite of Colorado has displayed the most signal failure to protect the lives and property of his constituents. It never before occurred in the history of our country that a Governor of a State ordered out the militia to prevent a sheriff and his deputies from arresting law-breakers in open insurrection. Now that the people of Colorado have had a taste of what anarchism in office means, it is scarcely probable that such a usurpation can happen again. It is a fit termination of such a farce that the adjutant-general of the militia of the State was tarred and feathered! The general government stepped in and arrested without form of local warrant the people whom Governor Waite was protecting. The general government was the only resource of the people of Colorado, since their local government had completely failed.

Governor Pattison of Pennsylvania has not shown the anarchistic tendencies of Waite, but an imbecility, which may be interpreted as demagoguery or timidity. For several months riots of a most destructive character have taken place in the coke-burning and coal-mining regions of the interior of the State, with little hindrance. Thousands of dollars worth of property have been burned and many lives sacrificed by strikers. Many men who have been willing to work have been brutally abused and rendered incapable of supporting their families for longer or shorter periods. The deputy sheriffs, in spite of much courage and hard work, have been unable to suppress these destructive proceedings, although they have done good service on several occasions. Several of them have lost their lives. The only action that the Governor took for several weeks was to consult with somebody as to the possibility of settling the difficulty by arbitration. But the Governor well knew two things: first, that measures were not needed to terminate strikes, which are perfectly lawful proceedings; and, second, that measures were needed to protect life and property in certain parts of the State. It is not good government to propose to arbitrate with the murderer who has just killed your friend and who has just burned your house. After the riots had nearly spent themselves, the Governor, stimulated by the press, sent a few troops to another region, where the situation was not worse than it had been elsewhere for several weeks. It looks as though hunger had done more to suppress murder and arson in Western Pennsylvania than any other agency. But the lost lives and property cannot be restored. Justice requires that payment for these losses shall be made, but who shall be the payer? With such a man as Pattison in the presidential chair, one would tremble for the country.

In the same spirit of fear of something, Mayor Hopkins of Chicago, instead of promptly suppressing incendiarism, malicious mischief, and assaults on workingmen, wasted his time in talking about arbitration. Such a course of conduct shows either fundamental ignorance of the uses of government, or something worse. It makes no difference what the grounds of the strike, whether just or unjust; the question before the Mayor was a totally different one. The practical result was that the destruction went on unhindered, until, under the President's proclamation, the troops of the general government appeared on the scene. The tardy action of Governor Altgeld hardly counted for much in the result, except to show that local government in Chicago and in Illinois was as great a failure as in Colorado and in Pennsylvania. The destruction has occurred, lives have been lost, many men have been brutally assaulted, and immense loss has accrued to both the laboring and capitalistic classes. Of course, the capitalistic class can stand it better than the laborers. Now, Mayor Hopkins was

the candidate of the "people," which probably includes many of the workingmen of Chicago. Perhaps in future they will look a little more carefully into the qualifications of the man in whose hands they place the protection of their lives and properties!

But what shall we say of California? For a week the entire State was in control of a mob. Not a wheel turned on a railroad. The capital of the State was occupied by an armed insurrection. The Governor (Markham) humbly asked permission of the strikers to be permitted to ride on a train to San Francisco from his summer retreat. He was promptly refused. So he staid where he was, ignoring the water communication at his disposal. The conditions being too bad to be overlooked, he dispatched a few companies of militia to Sacramento. On being ordered to expel the rioters from the railroad property, one company promptly threw down its arms. The pretensions of the mob were up to the highest standard of old time California inflation. Having possessed themselves of the State; they would drive off the regular troops of the Government. The State government was a conspicuous failure; Governor and militia; mayor, sheriff, and deputies, were alike overawed. But mark the result. Before the United States regulars appeared at Sacramento, the boastful rioters had betaken themselves to safe retreats, and the rebellion was over. Their only act of resistance was a dastardly piece of cowardice; the tampering with a trestle, so that a train was wrecked, and two trainmen and three soldiers were killed. In California the failure of the local authorities was more general than elsewhere; while the mischief done by the rioters was not equal to their pretensions. Here as elsewhere the failure of the local government rendered the intervention of the national government necessary.

In striking contrast to the imbecility displayed by the local authorities already referred to, stands the conduct of Governor Brown of Maryland, and Governor Matthews of Indiana. Both these executives had sufficient force at the scenes of rioting so promptly, that little or no damage was done in Maryland, and the riots at Hammond, Indiana, were promptly suppressed.

It is to be hoped that no serious riots will occur in Detroit during the term of Mayor Pingree, as he appears to be afflicted with the Hopkinsian rickets. His desire to have the mayors of the chief cities of the country to join in a request to the Pullman company to arbitrate, shows that, should Detroit be fired by rioters, he may play the arbitration fiddle while the city burns!

The sum of the matter is that in four States of the Union, three of them of the most wealthy, life and property have not been safe at numerous points and over a considerable period of time. I have not referred to two other States, West Virginia and Ohio, where much destruction took place during the miners' strike, just prior to the railroad strike. In both States the suppression of the disorders was exceedingly slow, and in one or two cases in Ohio, the militia are reported to have proved inefficient.

It will be henceforth a question with some capitalists in the States in question, whether it will be safe to continue business there. Capital must seek regions where its enterprises are protected, and where life and property are safe. In such States population and wealth will increase, while in those where such protection is not assured, the reverse process will take place. It may also be confidently expected, that if in future, the local governments prove as incompetent, as they have done during the recent strikes, the national government will take their place. In fact it is demonstrated already that the local machinery of sheriffs and deputies is unfit to cope with serious disorder. And if governors must wait until a few deputies are killed before they grant them the support of the militia, it will be difficult to find men to serve as deputies.

Something may yet be done to save the repute of municipal and State government. If Pattison, Altgeld, Waite, and Markham, with Mayor Hopkins, are impeached, the future will be better assured. The court-martialing of the company that threw down its arms at Sacramento is absolutely necessary to convince the world that California is not governed by hoodlums. The rapidity with which their opponents disappeared on the approach of danger, renders the position of this unfortunate company all the more ridiculous. But let all be done that can be, it still remains that the democratic doctrine of State rights has received the severest blow it ever experienced. Even the results of the war have not such a potent effect on public opinion as this failure of the constituted authorities to protect the ordinary life of the communities.

There have not been wanting some humors of the situation. According to E. V. Debs, the strikers, after having lost their wages and their positions, have won "a great victory." This can only be predicated on the immense damage they have inflicted on the public, including the railroads. The proposition to arbitrate remains as absurd as ever it was; and the condition that the American Railway Union will not "consent to arbitration" until the strikers are reinstated, is one of the humors referred to. This is like a previous observation from the same source;—that "the strikers will not assist the military." A remark which is distinctly Chicagoesque, showing that E. V. D. & Co. imagine, like some of their fellow citizens, that they "possess the earth." When justice is done, however, by the courts both local and national, many cheerful destroyers of other people's property, will have found that they have pursued a wrong course. Property and life will be secure ultimately, no matter what vicissitudes

our government may pass through in order to secure it. Democrats and Republicans are alike agreed on this point, and those who differ with them form but a small part of the population. Laborers may strike or use any other lawful means of increasing their wages, but they must not interfere with men who are willing to work while they prefer to be idle.

Ultimately it will be discovered that the rate of wages, is like the price of commodities, subject to the law of supply and demand. This is a natural law, and if it works hardship, it only does so where too many men wish to perform the same kind of labor. The cure for this is to go into fields of work that are not already full; or if all be full, to migrate to new pastures, of which the world is full.

PAINE'S ESCAPE FROM THE GUILLOTINE, 1794, AND HIS ESCAPE FROM THE PIOUS PILLORY, 1894.

BY M. D. CONWAY.

I HAVE received many inquiries concerning the authenticity of the story of Paine's escape from the guillotine, through the accident of his cell-door being open and flat against the wall when the turnkey passed in the night, marking the doors of those doomed for the morning, the chalk-mark thus being brought inside. Most of Paine's biographers have been shy of this story, either because there is in it suggestion of a mythical derivation from the destroying angel, or because Paine's first narrative of his escape said nothing of the chalk-mark. Thomas Carlyle, for crediting the story in his "History of the French Revolution," has been sharply attacked by an English writer, J. G. Alger, who has gathered his articles from magazines in America and England into two volumes,—one "Englishmen in the French Revolution," published some years ago, the other "Glimpses of the French Revolution" (1894). In the first of these entertaining but uncritical and inaccurate books, Alger challenged Carlyle's statement, but revealed his ignorance of the source of the story. He had got hold of a legendary version of it in an obituary of Sampson Perry, printed in 1823, and says this "is the sole authority I have been able to find for the fable," etc. This story is certainly fabulous, for it makes out that Paine and Perry occupied the same room in Luxembourg prison, and that both escaped by the fortunately misplaced mark. "Later in the day," adds the Perry obituary, "the keeper came round again, was astonished to find Paine and Perry there, but before he could take any steps he was shot by an infuriated mob, who had burst open the prison and liberated the captives just as Robespierre was being led to the scaffold." Alger leaped to the conclusion that this fable was told by Perry, who was not lodged with Paine, and concluded that he had a clear case against Carlyle and the story. Unfortunately, however, he had not read Paine, who told the story twenty-one years before the Perry obituary. This Alger discovered before writing his new volume. He now attacks Paine's version also, but makes misquotations and comes to grief over the whole thing. The only point of importance made is the fact that in 1795 Paine expressed his belief that it was owing to a violent fever, in which he lay insensible, that he was not carried out to execution, and in 1802 explained his escape by the chalk-mark story. There is, however, no inconsistency, as Alger would have discovered had he read the documents recently published concerning Paine. In the Luxembourg prison Paine was placed in the same room with three others, one of these being a Belgian named Vanhuele. Paine was delirious with fever, and when he came to his senses Robespierre had fallen. His room-mates had disappeared. He learned from Barère, who had been one of Robespierre's committee-men, that a sentence had issued against him, and indeed the committee who after Robespierre's death examined his papers reported in the Convention an entry for Paine's "accusation." Paine wrote (Preface to the "Age of Reason," 1795): "From what cause it was that the intention was not put in execution I know not, and cannot inform myself; and therefore I ascribe it to impossibility on account of that illness." But because Paine was not informed in 1795 it does not follow that he could not be informed in 1802, when he first published the chalk-mark story. His comrade and fellow-prisoner, Vanhuele, became Mayor of Bruges, and in the year 1800 Paine paid him a visit there. The two then for the first time had an opportunity of talking over events in the Luxembourg, and there is little doubt that Paine learned from Vanhuele the curious incident by which their lives had been saved. There is no reason to doubt the truth of the story. It is not one that Paine could have invented. In saying that "the destroying angel passed by" his door Paine perceives the resemblance to the biblical story of Israel in Egypt, but this story, and the marking of the oil-jars in the tale of the "Forty Thieves," simply show how natural and universal was the method of identification used in the Luxembourg prison. Paine also says "it happened, if happening is the proper word." He was answering his theological antagonists, and may have meant that if anybody could show providential interposition he could; but he perhaps suspected that some of the prison officials had connived in an artifice to save him. However this may be, he published the story in a work which he knew would be at once republished in England and France, and that not only his three fellow-prisoners, but thousands would be able to contradict his statements if untrue. There were numerous religious enemies of Paine in England and

America who would certainly have ferreted out any inaccuracy in a story which Paine's friends were utilising against those who called him an "infidel." Providence, they said, seems to be on the side of infidelity. Apart from the fact that the story is intrinsically one which Paine could not have invented, it seems certain that unless true it could not have passed unchallenged through the life-time of thousands familiar with the events of the time and place, to be questioned only after ninety years by the hasty and inexact Mr. Alger. His aim was not Paine, but Thomas Carlyle. He will have reason to remember Emerson's advice to the young man who criticised Plato: "He who shoots at the king ought to kill him." Alger's arrow, after proving a pointer to Carlyle's historical carefulness, has recoiled on himself.

There are certain historical personalities by whom the movements of civilisation may be measured. Events have made them into ensigns. Lord Brougham said (I quote from memory) that political civilisation might be measured in any country by what men generally thought of George Washington. The Washington in his mind was not the individual as critically revealed, but a representative character. In the same sense I remark the present position of Paine in England as a sign of the time. And here I must give some experiences at the risk of appearing egotistical. I am continually asked to lecture about Paine, and though compelled by my occupations to decline many of these invitations, in the instances where I have complied, the audiences, to me strangers, have manifested the utmost enthusiasm for the outlaw of 1793. Paine has been the means of my first appearance in an orthodox chapel in London. Since the death of Spurgeon, the leading Baptist minister in London is the Rev. Dr. Clifford, who is eloquent, and much more generous in his sentiments towards heretics than Spurgeon, though quite orthodox. The young people of his society have a large Bible class, and have instituted courses of lectures from "representatives of various schools of thought." Not long ago they had a lecture from a Jewish rabbi, and were fiercely attacked in one or two Christian papers for that. But, unsubdued by that attack, they straightway requested me to lecture to them about Paine, without the slightest suggestion of any restriction on my liberty of utterance. On the contrary, it was made evident to me that they desired introduction to the genuine Paine, just as he was, and that I tried to give them. The beautiful Westbourne Park Chapel was filled. Dr. Clifford was in the pulpit with me; the usual prayer, hymns, and Scripture readings preceded; and the applause during the lecture, especially at passages read from Paine, and the speeches that followed from Dr. Clifford and others, showed that the demonstration was by no means to the lecturer but to the "doubly-damned Tom Paine." And although the event has elicited from the religious organ which jealously guards Baptist orthodoxy demands for disciplinary dealings with Dr. Clifford, I observe that it is all on my account, nothing at all being said against Paine. In fact, although most of the English papers have recently contained articles or reviews concerning Paine, I have not seen one which has assailed him as a religious heretic. His political principles cannot now be objected to, being really the present Constitution of England, or what liberal Englishmen wish it to be considered. Your readers will, I trust, understand that it is not merely the biographical interest of these gleanings concerning Paine which have induced me to occupy lately so much of your space with them. By history this Thetford Quaker has been set for the falling and rising of many, a sign to be spoken against, that thoughts out of many hearts should be revealed; and his epoch will not be quite closed so long as the world is without one genuine republic.[1]

Westbourne Park Chapel gave me a good point of view from which to inspect a collection of political coins and medals struck a hundred years ago, and now in the British Museum. One is a half-penny of January 21, 1793: *Obverse*, a man hanging on a gibbet, with a church in the distance; motto, "End of Pain." *Reverse*, an open book, inscribed "The Wrongs of Man." A token: Bust of Paine, with his name; *reverse*, "The Mountain in Labour, 1793." A farthing (1791) with Paine gibbeted; *reverse*, breeches burning, and legend "Pandora's breeches"; beneath, a serpent decapitated by a dagger, the severed head being that of Paine. Another farthing with Paine gibbeted; *reverse*, a number of combustibles intermixed with labels issuing from a globe inscribed "Fraternity"; the labels inscribed "Regicide," "Robbery," "Falsity," "Requisition"; legend, "French Reforms, 1797"; near by, a church with flag, on it the cross. Half penny, not dated, but no doubt struck in 1794, when the rumor reached London that Paine had been

[1] Some time ago I wrote for *The Open Court* an article pointing out the unrepublican nature of disproportionate representation as embodied in the United States Senate. I owe apologies to two respected writers who criticised my statement in your columns. Their estimates of the Senate seemed to me to require only a few sentences of reply, and these I did not doubt would be supplied in one of those admirable notes which were appearing in your columns from the pen of General Trumbull. Alas, I knew not that the pen was falling from that faithful hand in which it was wielded as bravely as the sword, and like it only for human welfare. As for the critics, I cannot see that they really touched the issue made by General Trumbull and myself. They assert that the Senate is essential to the State-system of America, but that does not prove the system to be good. There are large provinces in France (Brittany, Normandy, etc.) and in Great Britain (Scotland, Wales, etc.) but they do not require to be made into a legislative chamber. In a republic the unit of representation is the human individual, not a geographical province, like Scotland or Rhode Island. The theoretical utility of a second chamber is to restrain popular precipitation by graver, older (*Seniores* = Senators) revision. Is the Senate now doing that? It has never done that; and it is impossible for an assembly representing provincial pride and local self-interest to exercise any such influence. It must proceed from the conscience and patriotism of the whole nation.

guillotined: Paine on gibbet; above, a devil seated, smoking a pipe; *reverse*, a monkey dancing, with legend, "We dance, Pain swings." A farthing: three men hanging on a gallows; inscription, "The three Thomas's, 1796." *Reverse*, "May the three knaves of Jacobin clubs never get a trick." The three Thomases were Thomas Paine, Sir Thomas More, and Thomas Spence. (In 1794 Thomas Spence, an author, was imprisoned seven months for advocating the republican principles applauded in Westbourne Park Chapel, and especially for publishing some of Paine's political works at his press, which he called the "Hive of Liberty.") Among these coined curses, much repeated, there are two of an opposite character. One farthing represents Pitt on a gibbet, against which a ladder is resting; inscription, "End of P [here an eye] T." *Reverse*, face of Pitt conjoined with that of a devil, and legend, "Even Fellows." Another farthing resembles the last, the inscription on reverse being, "Such is the reward of tyrants, 1796." These anti-Pitt farthings were struck by Thomas Spence, 8 Little Turnstile, Holborn, a few steps from the bookstore of freethinking works long kept by the venerable Edward Truelove, who owns the table on which Paine wrote several of his republican works. Should there ever be a Paine Exhibition in London, it will bring forth many historical relics, and exhume strange facts and records that have never seen the light.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

CÆSAR'S TREASURE.

While Jesus tarried by the seaside, certain of the multitudes which had heard him came unto him.

And one of these asked him concerning the doctrine of the Kingdom of Heaven, saying unto him:

Rabbi, explain unto us this saying of thine that the last should be first and the first last, for many are called, but few are chosen.

Now, there were on the sea many ships; and as they sailed towards the haven where they would be, even unto where Jesus and they that questioned him stood.

Jesus lifted up his voice and saith, O men of Israel, behold yonder ships; which of them, I pray you, beareth the greatest treasure?

And they looked upon the ships; and when they had looked they said unto Jesus, How can we tell? Lo, every ship hath sails set alike, and every ship draweth nigh unto the land.

Jesus saith unto them, Look again. Are all the ships alike?

And they, having looked again, said, Nay, but some are greater and others are less.

Jesus saith unto them, Doth the greater ship bear the greater treasure?

They answered him, We cannot tell.

Jesus saith unto them, Look again. Though some of the ships be greater and some be less, are they yet all alike?

They answered him, Nay, but some be swifter than the others.

Jesus saith, Doth the swifter ship bear the greater treasure?

They answered, Nay, Lord; but the swifter ship hath, more likely, the lighter burden.

Jesus saith again unto them, Ye cannot tell which of the ships hath the greater treasure; for though some be greater, and some swifter; yet it may well be that not by greatness nor by swiftness can ye tell.

They said unto him, True, Lord; we cannot tell.

Now the ships drew nigh unto the land. And that ship which came first was empty.

And the next likewise. But others were laden; some with wheat and corn, and yet others with spices and fruits.

And when the last ship came unto the haven, behold, that ship was the least of all the ships.

But, as they stood by, the captain of that little ship called unto all the people, saying, Give room, for I bear a gift from Cæsar unto Pilate.

And all the people and all the other ships gave room for him who came with authority from Cæsar, even for him who bore Cæsar's treasure.

And Jesus saith unto them who were round about him: Learn a lesson of the ships. For the gift is not always in the great, nor the treasure in the swift.

And again, only they who be in the treasure-ship know of the treasure it doth bear,

Save only Cæsar, and him unto whom Cæsar sendeth the treasure.

THE LATEST DEVELOPMENT OF AN OLD DISEASE.

There was a man apparently in the best of health who on awaking one morning after a jolly evening of merry-making found the limbs on the right side of his body paralysed. The physician was sent for. He came and examined the patient; and considering all the symptoms shook his head deliberately and said, "There is some disturbance in the *capsula interna*, left side. It may be a tumor but it most probably is due only to the rupture of a small blood-vessel. You must have been extremely merry yesterday, flushed with liquor and hilarity. A number of blood-corpuscles in your brain got too much excited and, overconscious of its own importance, a vessel has burst, shedding its contents between the lenticular body and the nerve-fibres. If this is the case you will remain paralysed for about nine days, until the blood is reabsorbed by the surrounding parts of the capsule. But if the cause of the disturbance be a tumor you will be paralysed for life."

The patient looked aghast: "Paralysed for life—a whole life-time?" he interrupted the doctor's speech.

"Don't be alarmed," continued the physician patiently, "your case is not bad. A life-time under such circumstances won't be very long. The tumor will spread over the adjacent parts of the brain and that will end the whole sickness at once."

The patient did not feel comfortable. At last he queried: "What do you call this sickness of mine?"

"Interference with the United States Mails," said the doctor.

"That is a new sickness! Is it not?"

"Yes or no, as you may take it. It is the latest development only of an old and long-known malady. Thus it is not quite new; it is as old as the existence of complicated organisms upon earth. The sickness is critical but it is in the nature of its conditions that it never lasts long. It will either pass by as quickly as it has come and give the patient a lesson to be more careful should he become a trifle too jolly again, or it will terminate the life of the whole organism. In the latter case, viz., if the interference is of a malignant character caused by a tumor or cancer, the illness may be protracted for years, but the patient will be in most cases as good as dead; he will be intellectually dead, for he will live in a continuous stupor without pains and ignorant of his sad plight."

Stricken with this strange malady, the patient was anxious to hear more about it, and the doctor gave the following explanation:

Organisms are centralised and the centre of the human organism is the brain. Now almost all the sensory nerve-fibres which ascend from the skin of the various limbs of the body to the brain, and also almost all the motor nerve-fibres which descend from the brain to the various muscles converge in each hemisphere into a narrow passage which is called by physiologists a capsule. There are two capsules, one large one breaking through the lenticular body and the caudate body called capsula interna, and another small one passing down on the outside of the lenticular body. The arteries and veins of the lenticular body are unusually delicate and may easily be ruptured. Now, suppose a rupture takes place right where the inner capsule is, a spot of coagulated blood would compress all the nerve-fibres and prevent any message of the brain reaching the limbs. This is what may properly be called interference with the United States mails, for it is a meddling with the business of the federal government of the body.

If Menenius Agrippa had lived in our days he would not have told his fable of the stomach and the limbs to the striking coal-miners and the striking switchmen, but the story of the inner capsule.

The blood-vessels of the capsula interna, he would have said to the Miner's Union and to the American Railway Union, got it into their heads that their services were indispensable and that they could run the whole social body in matters economical and political, if they only would persistently cut off the bounties under their control. It was easy enough to do so, on the supposition that they themselves would discontinue to attend to their work and allow no one else to take their places. They would only have to seize the opportunity and hold it by all means, whatever might come of it, and the rest of the world would soon have to come to terms. The proposition is simple enough, but is it feasible?

The details of the story of the internal capsule strike are *mutatis mutandis* similar to those of the fable of the striking stomach, and the application is the same. The strike of the American Railway Union is new in its peculiar complications only, but the case is as old as society, and the first great satire that to our knowledge has been written on it is Aristophanes's ingenius comedy entitled "The Birds."

More than two thousand years ago the Athenians devised a pretty scheme for running the universe. If they could but seize Syracuse they would be masters of the strait of Messina, as it is now called, then the main artery of commerce in the Mediterranean. That would surrender to them Sicily and Magna Græcia, the southern part of Italy. Dominating Sicily and Magna Græcia and controlling the sea routes of the Mediterranean, they would be masters of all trade and commerce of the then known world. What a fine scheme! But it stood upon a slender basis, for these sea routes were in the hands of other powers, the various great cities and States, and these powers would not be willing to surrender without a fight that would necessarily be for life and death; and Athens had neither the power, nor the perseverance and indispensable self-control, nor the wisdom to seize and to hold all these opportunities.

There were so many suppositions taken for granted, so many an "if this were so" remained unconsidered when the people of Athens ventured into this bold enterprise, that the end of it was the saddest and most complete wreck of the greatest and best equipped expedition that ever left the harbor of Athens. Not one man who went out ever returned to his native city, and the decay of the republic dates from this sanguine enterprise.

Aristophanes saw the danger and decided to give a warning to his countrymen. This was the occasion of his writing the comedy of "The Birds."

Two Athenians, Peisthetairos, the persuader, and Euelpides, the sanguine hoper, leave their home to join the birds. They climb up as high as they can in quest of a world free from the tribulations of life [vv.

44, 45], and make the acquaintance of the hoopoe, who, according to a Greek fable, had formerly been a man, and was changed into a bird. To him they propose their plans, which if carried out will give to the birds unequivocal control of the universe. Their advice is to form a strong union, to build a city in the air, and to fortify it. This done, they will govern mankind like grasshoppers and starve the gods into obedience [vv. 185–186], "for," says Peisthetairos, "the air is in the middle between heaven and earth. When we want to go to the Pythian temple of Apollo, we ask the Bœotians, in whose territory Delphi lies, for permission. So, when men offer gifts to the gods, you must no longer allow the odor of the sacrifice to pass through your realm." [vv. 188–194.] A great mass-meeting of the birds is called. After some difficulty the two Athenians succeed in persuading the citizens of the air that the feathered world was prior to the gods and had, at the beginning, ruled the affairs of the world; even now they were in possession of the means to reassert their old rights, and should boldly take the government that belonged to them. The motion is made to unite all birds into one great city, to secure the air by walls, and boldly ask Zeus to abdicate his power. Should he refuse, the celestials should no longer be allowed to pass through the city of the birds [vv. 548–560]. That will soon bring the gods to terms and make the birds actual rulers of the universe [v. 565]. The motion is carried and acted upon. The name of the city is Cloudland (*νεφελοκυκκυΐα*, i. e., the cloud-cuckoo-town).

Iris, the messenger of the gods, sent down to mankind by Zeus, who begins to feel the effects of the interception of all sacrifices, is stopped by Peisthetairos and treated with contempt. "Should we," says Peisthetairos, "who rule the rest of the world, suffer your insolence? No, you must learn to obey us and recognise that we are more powerful than you."

When Iris threatens that Zeus will use his thunderbolts, Peisthetairos turns the tables and declares that his divine palace will be burned down, and the chorus of birds proclaims an injunction upon the gods not to pass through Cloudland.

Now the victory is gained. Men from the dark walks of life, a hungry poet, blackmailers, informers, parricides, and criminals, join the cause of the birds, and Peisthetairos has great trouble to get rid of them. Peisthetairos, it appears, is as unable as many of our modern strike leaders to lay the spirits whom they called.

At last an embassy from Zeus appears, consisting of Poseidon, representing the gods by birth, Hercules, representing the upstarts among the gods, and Triballos, representing the uncultured and barbarian deities. Following the advice of Prometheus, Peisthetairos demands unconditional surrender, and, isolating the old legitimatist Poseidon, he gains all his points by making the committee vote. Hercules and Triballos vote in favor of surrendering the sceptre of the gods and also Basileia or "Kingdom," the beautiful companion of Zeus.

Peisthetairos ascends to the gods to receive all power in heaven and earth, and the comedy ends with a pæan of glorification to the victor and master of demons.

The comedy is most ingenious and full of food for thought. It illustrates the clever idea of the Archimedian *Δός μοι πού στῶ καὶ κινήσω τὴν γῆν* (give me a place to stand on and I will move the world). There are, indeed, places from which you can move the whole world; there are pivots on which a child may turn a colossal mass, which, if it fell, would crush numberless people. But he who would keep that place at the pivot must not throw the machinery out of gear; he must not wage a war against gods and men, which in the end will prove a hopeless undertaking, but must serve society and attend to its needs. He must not destroy, but build. He must not cause confusion, but preserve order. He must not tap the resources of the livelihood of his follow-beings, but create more wealth and increase the possibilities of a higher life.

It is easy for the capsula interna to paralyse the limbs of the body; it is easy enough to throw a well-balanced turn-table, be it ever so heavy, off its fulcrum; it is still easier to misguide a number of half-educated men who have become aware of their power for mischief: but it is difficult to keep the body politic in good health, and to manipulate the easy-turning machinery. Yet most difficult it is to point out the path of social progress.

P. C.

CORRESPONDENCE.

MR. MARTIN'S PLEA FOR NON-SECTARIAN RELIGION

To the Editor of The Open Court:

In your issue of June 21 appears an article by Mrs. C. P. Woolley upon "Liberal Religious Affairs in the West," in which she comments upon my address as the "one discordant note" heard at the American Congress in Chicago. As a matter of justice and truth, let me say that I spoke reluctantly and merely as a member of the Committee on the Plan of Organisation, forced to submit a minority report because I could not indorse two phrases in the plan as finally formulated, viz.: (1) "*Other* non-sectarian churches," the implication being that Universalist and Unitarian churches, for example, are non-sectarian, and (2) "*absolute* mental liberty," because no churches can be organised on that basis without the surrender of their Christian or other sectarian connexions. No one regretted this enforced disagreement with the other members of the Committee more than myself. I made no "charge against the Congress of weakness and bad logic," but merely stated what, from my point of view, consistency required. Mrs. Woolley has wholly missed the *spirit* of my remarks

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as well as the friendly and fraternal attitude of my society at Tacoma towards the Congress. To assert that universal religion *must* be unsectarian, and that to represent it *consistently* one must be unsectarian as an individual, in his society, and in the fellowship of societies, seemed to me an obvious and irrefutable truth, and in no way implied any "self-assumption," or "ecclesiasticism," or "narrowness or bigotry"—particularly when asserted in the spirit of love and with deep regret because it seemed to detract from the glow of enthusiasm and rejoicing that prevailed throughout the sessions of the Congress. ALFRED W. MARTIN.

[Mr. Martin's proposition that the Unitarians, Universalists, the Jews, and other churches represented at the Congress, being, after all, sects, "should pay the full price of unconditioned freedom by sacrificing their fellowship, name, and connexion," was made on the last day, during the business transactions of formulating the by-laws and electing the various officers of the new organisation. The feeling of the audience was that the various churches, represented, had given up all those principles which tie them down to tradition; and especially the Unitarians, by choosing truth alone for authority, seemed conscious of having broadened into a church universal. It is neither the name nor the number of adherents which makes a religion unsectarian or catholic, but the spirit.

The Roman Church claims to be catholic, and might be judged so if the matter had to be decided among all Christians by a majority vote, for it outnumbers all other denominations. But is the Roman Church for that reason truly catholic? No, it is not; it is after all a large sect only, for it recognises the authority of councils and popes as final; it is still in the bondage of tradition and human authority.

There is but one catholic or universal religion: the religion of truth, which not only allows, but demands, a free investigation of its tenets, rejecting any and all personal authority, and accepting that which according to the strictest methods of science can be proved to be true. There is but one institution on earth which is truly catholic in principle: it is science, and we shall have no catholic religion until we have a religion of science.

It is a great pity that Mr. Martin's proposition was not made at a more seasonable time, so as to allow it a thorough discussion, for he touched the most vital point, which should not have been left in the dark. A ventilation of his proposition would have led to a clear and comprehensive statement of the nature of the bond of union of the various members of the Congress.

In our opinion all the churches can retain their names and continue their various connexions and fellowships; they can even cherish and revere their tradition, if they but adopt the principle to recognise scientifically provable truth as the highest authority. Should some of the customs and institutions be incompatible with the spirit of science, they will soon enough find it out themselves and abrogate their antiquated traditions.

Says Kant:

"Friends of mankind and of all that is holy to man, accept whatever, after a careful and honest inquiry, you regard to be most trustworthy, be it facts or rational arguments, but do not contest that prerogative of reason, which makes it the highest good upon earth, viz., to be the ultimate criterion of truth. Otherwise you will be unworthy of your liberty and lose it without fail." (Kant, "Was heisst: Sich im Denken orientiren." Edition Hartenstein, Vol. IV, p. 352.)

We do not mean to advocate the crude rationalism that for a long time prospered in Germany, which in its one-sided narrowness rejected the poetry of symbolism on account of its irrationality, and with it the religious truth contained in the symbols. We advocate a new and higher rationalism, all-sided enough to understand the spirit of religious mysticism without being oppressed by its darkness, but leading it out into the light.

Mr. Martin quotes F. E. Abbot, who says: "Friend, you must come out of your shanty. You must give up your Mohammedanism, your Judaism, your Christianity." This method is a cure after the recipe of Dr. Ironbeard of the German folk-song. He kills his patient to free him from pain. To relieve him of a headache he would cut off his head.

The various religions of mankind are not radically wrong; they contain good seeds, and these seeds can grow. We would therefore say:

Friend, investigate your religion, be it Mohammedanism, Judaism, or Christianity. Distinguish between the essential and the accidental, between the good and the bad, between that which is true and helpful and that which is false and injurious. Keep the former, drop the latter, and grow spiritually, intellectually, and morally. If you find that, in your conception, your religion was in all its essentials intended to be the religion of truth, keep its name; if not, drop it. In either case, you must know that not the letters of a name possess saving power, but the spirit of your religion.—ED.]

NOTES.

On page 4160 of the present number of *The Open Court*, Prof. E. D. Cope proposes the court-martialing of a company of California militia, which, in the face of the mob, threw down their arms. Professor Cope probably refers to a sensational newspaper report which made a statement to that effect but was promptly followed by a *dementi*. We know of no company of militia guilty of disobedience or treachery. The facts in the mooted case, if we are well informed, were that a company of militia, called out to restore order, was forbidden by the local authorities to shoot, whereupon the officers declared that under these conditions the soldiers could not be expected to do their duty, and the officers of the militia themselves ordered their men to withdraw.

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THE OPEN COURT.

A WEEKLY JOURNAL

DEVOTED TO THE RELIGION OF SCIENCE.

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THE VELOCITY OF LIGHT.

A POPULAR SCIENTIFIC LECTURE.[1]

BY PROF. ERNST MACH.

When a criminal judge has a right crafty knave before him, one well versed in the arts of prevarication, his main object is to wring a confession from the culprit by a few skilful questions. In almost a similar position the natural philosopher seems to be placed with respect to nature. True, his functions here are more those of the spy than the judge; but his object remains pretty much the same. Her hidden motives and laws of action is what nature must be made to confess. Whether a confession will be extracted depends upon the shrewdness of the inquirer. Not without reason, therefore, did Lord Bacon call the experimental method a questioning of nature. The art consists in so putting our questions that they may not remain unanswered without a breach of etiquette.

Look, too, at the countless tools, engines, and instruments of torture with which man conducts his inquisitions of nature, and which mock the poet's words:

> "Mysterious even in open day,
> Nature retains her veil, despite our clamors:
> That which she doth not willingly display
> Cannot be wrenched from her with levers, screws, and hammers."

Look at these instruments and you will see that the comparison with torture also is admissible.

This view of nature, as of something designedly concealed from man, that can be unveiled only by force or dishonesty, chimed in better with the conceptions of the ancients than with modern notions. A Grecian philosopher once said, in offering his opinion of the natural science of his time, that it could only be displeasing to the gods to see men endeavoring to spy out what the gods were not minded to reveal to them.[2] Of course all the contemporaries of the speaker were not of his opinion.

Traces of this view may still be found to-day, but upon the whole we are now not so narrow-minded. We believe no longer that nature designedly hides herself. We know now from the history of science that our questions are sometimes meaningless, and that, therefore, no answer can be forthcoming. Soon we shall see how man, with all his thoughts and quests, is only a fragment of nature's life.

Picture, then, as your fancy dictates, the tools of the physicist as instruments of torture or as engines of endearment, at all events a chapter from the history of those implements will be of interest to you, and it will not be unpleasant to learn what were the peculiar difficulties that led to the invention of such strange apparatus.

Galileo (born at Pisa in 1564, died at Arcetri in 1642) was the first who asked what was the velocity of light, that is, what time it would take for a light struck at one place to become visible at another, a certain distance away.[1]

The method which Galileo devised was as simple as it was natural. Two practised observers, with muffled lanterns, were to take up positions in a dark night at a considerable distance from each other, one at *A* and one at *B*. At a moment previously fixed upon, *A* was instructed to unmask his lantern; while as soon as *B* saw the light of *A*'s lantern he was to unmask his. Now it is clear that the time which *A* counted from the uncovering of his lantern until he caught sight of the light of *B*'s would be the time which it would take light to travel from *A* to *B* and from *B* back to *A*.

A————————*B*

Fig. 1.

The experiment was not executed, nor could it, in the nature of the case, have been a success. As we now know, light travels too rapidly to be thus noted. The time elapsing between the arrival of the light at *B* and its perception by the observer, with that between the decision to uncover and the uncovering of the lantern, is, as we now know, incomparably greater than the time which it takes light to travel the greatest earthly distances. The great velocity of light will be made apparent, if we reflect that a flash of lightning in the night illuminates instantaneously a very extensive region, whilst the single reflected claps of thunder arrive at the observer's ear very gradually and in appreciable succession.

[1] Graz, 1867. Translated by *μκρκ*.

[2] Xenophon, Memorabilia iv, 7, puts into the mouth of Socrates these words: *οὔτε γὰρ εὑρετὰ ἀνθρώποις αὐτὰ ἐνόμιζεν εἶναι, οὔτε χαρίζεσθαι θεοῖς ἂν ἡγεῖτο τὸν ζητοῦντα ἃ ἐκεῖνοι σαφηνίσαι οὐκ ἐβουλήθησαν.*

[1] Galilei, *Discorsi e dimostrazione matematiche.* Leyden, 1638. *Dialogo Primo.*

During his life, then, the efforts of Galileo to determine the velocity of light remained uncrowned with success. But the subsequent history of the measurement of the velocity of light is intimately associated with his name, for with the telescope which he constructed he discovered the four satellites of Jupiter, and these furnished the next occasion for the determination of the velocity of light.

The terrestrial spaces were too small for Galileo's experiment. The measurement was first executed when the spaces of the planetary system were employed. Olaf Römer, (born at Aarhuus in 1644, died at Copenhagen in 1710) accomplished the feat (1675-1676), while watching with Cassini at the observatory of Paris the revolutions of Jupiter's moons.

Let AB (Fig. 2) be Jupiter's orbit. Let S stand for the sun, E for the earth, J for Jupiter, and T for Jupiter's first satellite. When the earth is at E_1 we

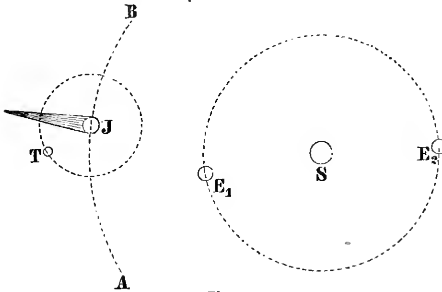

Fig. 2.

see the satellite enter regularly into Jupiter's shadow, and by watching the time between two successive eclipses, can calculate its time of revolution. The time which Römer noted was forty-two hours, twenty-eight minutes, and thirty-five seconds. Now, as the earth passes along in its orbit towards E_2, the revolutions of the satellite grow apparently longer and longer: the eclipses take place later and later. The greatest retardation of the eclipse, which occurs when the earth is at E_2, amounts to sixteen minutes and twenty-six seconds. As the earth passes back again to E_1, the revolutions grow apparently shorter, and they occur in exactly the time that they first did when the earth arrives at E_1. It is to be remarked that Jupiter changes only very slightly its position during one revolution of the earth. Römer guessed at once that these periodical changes of the time of revolution of Jupiter's satellite were not actual, but apparent changes, which were in some way connected with the velocity of light.

Let us make this matter clear to ourselves by a simile. We receive regularly by the post, news of the political status at our capital. However far away we may be from the capital, we hear the news of every event, later it is true, but of all equally late. The events reach us in the same succession of time as that in which they took place. But if we are travelling away from the capital, every successive post will have a greater distance to pass over, and the events will reach us more slowly than they took place. The reverse will be the case if we are approaching the capital.

At rest, we hear a piece of music played in the same *tempo* at all distances. But the *tempo* seems to be accelerated if we are carried rapidly towards the band, or to be retarded if we are carried swiftly away from it.[1]

Picture to yourself a cross, say the sails of a windmill (Fig. 3), in uniform rotation about its centre. Clearly, the rotation of the cross will appear to you more slowly executed if you are carried very rapidly away from it. For the post which in this case conveys to you the light and brings to you the news of the successive positions of the cross will have to travel in each successive instant over a longer path.

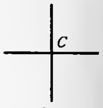

Fig. 3.

Now this must also be the case with the rotation (the revolution) of the satellite of Jupiter. The greatest retardation of the eclipse (16½ minutes), due to the passage of the earth from E_1 to E_2, or to its removal from Jupiter by a distance equal to the diameter of the orbit of the earth, plainly corresponds to the time which light requires to travel a distance equal to the diameter of the earth's orbit. The velocity of light, that is, the distance described by light in a second, as determined by this calculation, is 311,000 kilometres, or 193,000 miles. A subsequent correction of the diameter of the earth's orbit, gives, by the same method, the velocity of light as approximately 186,000 miles a second.

The method is exactly that of Galileo; only better conditions are selected. Instead of a short terrestrial distance we have the diameter of the earth's orbit, three hundred and seven million kilometres; in place of the uncovered and covered lanterns we have the satellite of Jupiter, which alternately appears and disappears. Galileo, therefore, although he could not himself make his proposed measurement, found the lantern by which it was ultimately executed.

Physicists did not long remain satisfied with this beautiful discovery. They sought after easier methods of measuring the velocity of light, which might be performed on the earth. This was possible after the difficulties of the problem were clearly exhibited. A measurement of the kind referred to was executed in 1849 by Fizeau (born at Paris in 1819).

[1] In the same way, the pitch of a locomotive whistle seems to rise as a rapidly moving train approaches a railway station, and to fall as the train passes away from it.—*Trans.*

I shall endeavor to make the principle of Fizeau's apparatus clear to you. Let *s* (Fig. 4) be a disk free to rotate about its centre, and perforated at its rim with a series of holes. Let *l* be a luminous point

Fig. 4.

casting its light on an unsilvered glass, *a*, inclined at an angle of forty-five degrees to the axis of the disk. The ray of light, reflected at this point, passes through one of the holes of the disk and falls at right angles upon a mirror *b*, erected at a point about five miles distant. From the mirror *b* the light is again reflected, passes once more through the hole in *s*, and, penetrating the glass plate, finally strikes the eye, *o*, of the observer. The eye, *o*, thus sees the image of the luminous point *l* through the glass plate and the hole of the disk in the mirror *b*.

If, now, the disk be set in rotation, the unpierced spaces between the apertures will alternately take the place of the apertures, and the eye *o* will now see the image of the luminous point in *b* only at interrupted intervals. On increasing the rapidity of the rotation, however, the interruptions for the eye again become unnoticeable, and the eye sees the mirror *b* uniformly illuminated.

But all this holds true only for relatively small velocities of the disk, when the light sent through an aperture in *s* to *b* on its return strikes the aperture at almost the same place and passes through it a second time. Conceive, now, the velocity of the disk so increased that the light on its return finds before it an unpierced space instead of an aperture, it will then no longer be able to reach the eye. We then see the mirror *b* only when no light is emitted from it, but only when light is sent to it; it is covered when light comes from it. In this case, accordingly, the mirror will always appear dark.

If the velocity of rotation at this point were still further increased, the light sent through one aperture could not, of course, on its return pass through the same aperture but might strike the next and reach the eye by that. Hence, by constantly increasing the velocity of the rotation, the mirror *b* may be made to appear alternately bright and dark. Plainly, now, if we know the number of apertures of the disk, the number of rotations per second, and the distance *s b*, we can calculate the velocity of light. The result agrees with that obtained by Römer.

The experiment is not quite as simple as my exposition might lead you to believe. Care must be taken that the light shall travel back and forth over the miles of distance *s b* and *b s* undispersed. This difficulty is obviated by means of telescopes.

If we examine Fizeau's apparatus closely, we shall recognise in it an old acquaintance: the arrangement of Galileo's experiment. The luminous point *l* is the lantern *A*, while the rotation of the perforated disk performs mechanically the uncovering and covering of the lantern. Instead of the unskilful observer *B* we have the mirror *b*, which is unfailingly illuminated the instant the light arrives from *s*. The disk *s*, by alternately transmitting and intercepting the reflected light, assists the observer *o*. Galileo's experiment is here executed, so to speak, countless times in a second, while the total result admits of actual observation. If I might be pardoned the use of a phrase of Darwin's in this field, I should say that Fizeau's apparatus was the descendant of Galileo's lantern.

A still more refined and delicate method for the measurement of the velocity of light was employed by Foucault, but a description of it here would lead us too far.

The measurement of the velocity of sound is easily executed by the method of Galileo. It was unnecessary, therefore, for physicists to rack their brains further about the matter; but the idea which with light grew out of necessity was applied also in this field. Koenig of Paris constructs an apparatus for the measurement of the velocity of sound which is closely allied to the method of Fizeau.

The apparatus is very simple. It consists of two electrical clock-works which strike simultaneously, with perfect precision, tenths of seconds. If we place the two clock-works directly side by side, we hear their strokes simultaneously, wherever we stand. But if we take our stand by the side of one of the works and place the other at some distance from us, in general a coincidence of the strokes will now not be heard. The companion strokes of the remote clock-work arrive, as sound, later. The first stroke of the remote work is heard, for example, immediately after the first of the adjacent work, and so on. But by increasing the distance we may produce again a coincidence of the strokes. For example, the first stroke of the remote work coincides with the second of the near work, the second of the remote work with the third of the near work, and so on. If, now, the works strike tenths of seconds and the distance between them is increased until the first coincidence is noted, plainly that distance is travelled over by the sound in a tenth of a second.

We meet frequently the phenomenon here presented, that a thought which centuries of slow and painful endeavor are necessary to produce, when once

developed, fairly thrives. It spreads and runs everywhere, even entering minds in which it could never have arisen. It simply can not be eradicated.

The determination of the velocity of light is not the only case in which the direct perception of the senses is too slow and clumsy for use. The usual method of studying events too fleet for direct observation consists in putting into reciprocal action with them other events already known, the velocities of all of which are capable of comparison. The result is usually unmistakable, and susceptible of direct inference respecting the character of the event which is unknown. The velocity of electricity cannot be determined by direct observation. But it was ascertained by Wheatstone, simply by the expedient of watching an electric spark in a mirror rotating with tremendous known velocity.

If we wave a staff irregularly hither and thither, simple observation cannot determine how quickly it moves at each point of its course. But let us look at the staff through holes in the rim of a rapidly rotating disk. We shall then see the moving staff only in certain positions, namely, when a hole passes in front of the eye. The single pictures of the staff remain for a time impressed upon the eye; we think we see several staffs, having some such disposition as that represented in Fig. 6. If, now, the holes of the disk are equally far apart, and the disk is rotated with uniform velocity, we see clearly that the staff has moved slowly from a to b, more quickly from b to c, still more quickly from c to d, and with its greatest velocity from d to e.

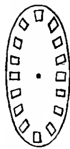

Fig. 5.

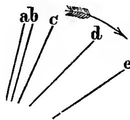

Fig. 6.

A jet of water flowing from an orifice in the bottom of a vessel has the appearance of perfect quiet and uniformity, but if we illuminate it for a second, in a dark room, by means of an electric flash we shall see that the jet is composed of separate drops. By their quick descent the images of the drops are obliterated and the jet appears uniform. Let us look at the jet through the rotating disk. The disk is supposed to be rotated so rapidly that while the second aperture passes into the place of the first, drop 1 falls into the place of 2, 2 into the place of 3, and so on. We see drops then always in the same places. The jet appears to be at rest. If we turn the disk a trifle more slowly, then while the second aperture passes into the place of the first, drop 1 will have fallen somewhat lower than 2, 2 somewhat lower than 3, etc. Through every successive aperture we shall see drops in successively lower positions. The jet will appear to be flowing slowly downwards.

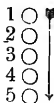

Fig. 7.

Now let us turn the disk more rapidly. Then while the second aperture is passing into the place of the first, drop 1 will not quite have reached the place of 2, but will be found slightly above 2, 2 slightly above 3, etc. Through the successive apertures we shall see the drops at successively higher places. It will now look as if the jet were flowing upwards, as if the drops were rising from the lower vessel into the higher.

You see, physics grows gradually more and more terrible. The physicist will soon have it in his power to play the part of the famous lobster chained to the bottom of the Lake of Mohrin, whose direful mission, if ever liberated, the poet Kopisch humorously describes as that of a reversal of all the events of the world; the rafters of houses become trees again, cows calves, honey flowers, chickens eggs, and the poet's own poem flows back into his inkstand.

* * *

You will now allow me the privilege of a few general remarks. You have seen that the same principle often lies at the basis of whole classes of apparatus designed for different purposes. Frequently it is some very unobtrusive idea which is productive of so much fruit and of such extensive transformations in physical technics. It is not different here than in practical life.

The wheel of a waggon appears to us a very simple and insignificant creation. But its inventor was certainly a man of genius. The round trunk of a tree perhaps first accidentally led to the observation of the ease with which a load can be moved on a roller. Now, the step from a simple supporting roller to a fixed roller, or wheel, appears a very easy one. At least it appears very easy to us who are accustomed from childhood up to the action of the wheel. But if we put ourselves vividly into the position of a man who never saw a wheel, but had to invent one, we shall begin to have some idea of its difficulties. Indeed, it is even doubtful whether a single man could have accomplished this feat, whether perhaps centuries were not necessary to form the first wheel from the primitive roller.[1]

History does not name the progressive spirits who constructed the first wheel; their time lies far back of the historic period. No scientific academy crowned their efforts, no society of engineers elected them honorary members. They still live only in the stupendous results which they called forth. Take from us the wheel, and little will remain of the arts and industries of modern life. All disappears. From the spinning-wheel to the spinning-mill, from the turning-

[1] Observe, also, the respect in which the wheel is held in India, Japan, and other Buddhistic countries, as the emblem of power, order, and law, and of the superiority of mind over matter. The consciousness of the importance of the wheel seems to have lingered long in the minds of these nations.—*Trans*.

lathe to the rolling-mill, from the wheelbarrow to the railway train, all vanishes.

In science the wheel is equally important. Whirling machines, as the simplest means of obtaining quick motions with inconsiderable changes of place, play a part in all branches of physics. You know Wheatstone's rotating mirror, Fizeau's wheel, Plateau's perforated rotating disks, etc. Almost the same principle lies at the basis of all these apparatus. They differ from one another no more than the pen-knife differs, in the purposes it serves, from the knife of the anatomist or the knife of the vine-dresser. Almost the same might be said of the screw.

It will now perhaps be clear to you that new thoughts do not spring up suddenly. Thoughts need their time to ripen, grow, and develop in, like every natural product; for man, with his thoughts, is also a part of nature.

Slowly, gradually, and laboriously one thought is transformed into a different thought, as in all likelihood one animal species is gradually transformed into new species. Many ideas arise simultaneously. They fight the battle for existence not differently than do the Ichthyosaurus, the Brahman, and the horse.

A few remain to spread rapidly over all fields of knowledge, to be redeveloped, to be again split up, to begin again the struggle from the start. As many animal species long since conquered, the relicts of ages past, still live in remote regions where their enemies cannot reach them, so also we find conquered ideas still living on in the minds of many men. Whoever will look carefully into his own soul will acknowledge that thoughts battle as obstinately for existence as animals. Who will gainsay that many vanquished modes of thought still haunt obscure crannies of his brain, too faint-hearted to step out into the clear light of reason? What inquirer does not know that the hardest battle, in the transformation of his ideas, is fought with himself.

Similar phenomena meet the natural inquirer in all paths and in the most trifling matters. The true inquirer seeks the truth everywhere, in his country-walks and on the streets of the great city. If he is not too learned, he will observe that certain things, like ladies' hats, are constantly subject to change. I have not pursued special studies on this subject, but as long as I can remember, one form has always gradually changed into another. First, they wore hats with long projecting rims, within which, scarcely accessible with a telescope, lay concealed the face of the beautiful wearer. The rim grew smaller and smaller; the bonnet shrank to the irony of a hat. Now a tremendous superstructure is beginning to grow up in its place, and the gods only know what its limits will be. It is not different with ladies' hats than with butterflies, whose multiplicity of form often simply comes from a slight excrescence on the wing of one species developing in a cognate species to a tremendous fold. Nature, too, has its fashions, but they last thousands of years. I could elucidate this idea by many additional examples; for instance, by the history of the evolution of the coat, if I were not fearful that my gossip might prove irksome to you.

* * *

We have now wandered through an odd corner of the history of science. What have we learned? The solution of a small, I might almost say insignificant, problem—the measurement of the velocity of light. And more than two centuries have worked at its solution! Three of the most eminent natural philosophers, Galileo, an Italian, Römer, a Dane, and Fizeau, a Frenchman, have nobly shared its labors. And so it is with countless other questions. When we contemplate thus the many blossoms of thought that must wither and fall before one shall bloom, then shall we first truly appreciate Christ's weighty but little consolatory words: "Many be called but few are chosen."

Such is the testimony of every page of history. But is history right? Are really only those chosen whom she names? Have those lived and battled in vain, who have won no prize?

I doubt it. And so will every one who has felt the pangs of sleepless nights spent in thought, at first fruitless, but in the end successful. No thought in such struggles was thought in vain; each one, even the most insignificant, nay, even the erroneous thought, that which apparently was the least productive, served to prepare the way for those that afterwards bore fruit. And as in the thought of the individual naught is in vain, so, also, it is in that of humanity.

Galileo wished to measure the velocity of light. He had to close his eyes before his wish was realised. But he at least found the lantern by which his successor could accomplish the task.

And so I may maintain that we all, so far as inclination goes, are working at the civilisation of the future. If only we all strive for the right, then are we *all* called and *all* chosen!

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

PAUL'S EPISTLE TO THE DAMASCENES.

Dearly beloved, this epistle write I unto you, for as much as it hath been told me how ye receive not with meekness the truth as it is in Christ Jesus:

But are puffed up with your own conceits, relying upon your traditions, saying one to another and to him whom I sent unto you, that a priest must be of the sons of Levi.

Know ye not that ye all are a royal priesthood,—a peculiar people?

Verily I say unto you in Christ Jesus is neither priesthood nor tradition, neither tithes nor burnt-offerings, neither temples nor altars, neither circumcision nor uncircumcision;

But ye are all free, made free with the freedom with which Christ hath made you free.

For now hath light come into the world that ye need walk no longer in darkness, neither stumble any more, nor seek any more, nor doubt any more.

Was it not said of old, even by David, King of Israel, Thou art a priest forever after the order of Melchizedek.

And this Melchizedek was a type of Him who should come, even the very Truth, who was first pure, being King of Righteousness, then peaceable, being King of Peace.

And the same was without father or mother, having neither beginning of days nor end of life; but was truly like unto the Son of God, abiding a priest continually.

Who is made, not after the law of a carnal commandment, but after the power of an endless life.

Behold it came to pass that this same Melchizedek preached unto your fathers this doctrine;

But their hearts were hardened against him, and they understood him not, but reviled him,

For Melchizedek came unto your city. And beheld standing in the market-place thereof images of gold of the gods of the people,

Of the Canaanites and the Moabites and the Midianites, aye and of the Israelites also, whose seed ye are.

Behold there he saw and beheld an image of Baal, even a golden image, and an image of Ashteroth, even a golden image,

And an image of Jahweh also, even a golden image.

And they all fell down before the images and did worship them.

Then Melchizedek called with a loud voice and saith, O ye children of Israel, why are ye gone after a strange god?

Then saith the Israelites, Behold the image that we have set up is not the likeness of Baal nor of Ashteroth.

For the gods of the Canaanites and the Moabites and the Midianites be false gods.

But He, whose image we have made, is the true God, even Jahweh, who brought us out of the land of Egypt, even Him do we worship.

Look now upon the image of Baal and the image of Ashteroth. Is not the image, even the golden image that we have set up, comlier of form than they?

Then was Melchizedek wroth and saith unto the Israelites:

Behold God, even the God of Moses, is not a god made with hands like unto the image that ye have set up.

Neither is He made in the likeness of anything that is on the face of the earth;

For God, even the true God, hath no form nor comeliness, that ye should desire his likeness.

And Melchizedek took the image, even the golden image that the Israelites set up, and cast it into the fiery furnace.

And there were of the children of Israel in number about ten thousand.

And Melchizedek turned the golden image into money, even into ten thousand pieces of gold, and every piece of gold was in the form of a lamb.

And he gave unto the Israelites the pieces of gold, even the golden lambs; to every man his piece; to every one of the children of Israel one lamb.

And the image was made an end of, but the gold remained.

Behold now I say unto you, O men of Damascus, that as it was in the days of old it is now.

And this same Jesus, whose gospel I have preached unto you, is now become your great High Priest.

The priest forever after the order of Melchizedek,

Who hath made a new covenant with his people in a greater and more perfect tabernacle, saying,

I will put my laws in their mind and write them upon their hearts.

For the law is a shadow of good things to come and not the image of the things.

Behold the lamb of God which taketh away the sins of the world.

KIDD'S "SOCIAL EVOLUTION."

BY DR. LEWIS G. JANES.

Though over-rated by some critics, Mr. Benjamin Kidd's recently published work on "Social Evolution" has one supreme merit—that of venturing boldly upon the frontier-line of thought concerning the grave problems pertaining to the relations of the individual to society. It is probable that the author, himself, would hardly claim that he had furnished the solution of these problems. The general impression produced by his book, indeed, is that in the opinion of the author there is no rational solution. Social adjustments must be made in the future, as they have been in the past, according to his understanding of the philosophy of societary progress, by the complete subordination of the rational nature to the super-rational sanctions of what he sometimes calls the "ethical" and sometimes the "religious" motive. This conception constitutes the key-note of Mr. Kidd's doctrine cf social evolution.

The conclusions of the author are largely vitiated by the dependence of his argument on certain underlying and undemonstrated assumptions, as well as by annoying vagueness and inaccuracy in the use of terms. He apparently uses the words "rational" and "intellectual," for example, implying egoistic hedon-

ism as the supreme motive of human action. The admitted altruistic tendency in our modern civilisation is traced to the conception of human equality, which is assumed to be the product of the "super-rational" teachings of Christianity. Religion and morality, apparently regarded as identical in their origin and character, and as antithetical to the rational nature, are traced to this super-rational source.

These erroneous assumptions doubtless arise from insufficient acquaintance with the natural history of the evolution of the religious and moral sentiments, and in part from a common misconception of the essential character of the early Christian doctrine. To the student of human origins, nothing can be clearer than the fact that religion and morality were distinct in their origin and earlier evolution, and have only become united in our thought by a gradual process of mental association. The earlier stages of human progress were characterised by the dominance of the religious sentiment, and by great feebleness of the ethical impulse. Most savage tribes are still dominated by super-rational or super-natural motives to a degree almost inconceivable by the modern rational thinker. The progress of civilisation, indeed, has been marked by the gradual supplanting of supernatural or religious by ethical and rational motives in the government of conduct. This substitution has unquestionably been the result, mainly, of intellectual progress in the race.

This is no less true of the progress of Christianity itself than it is in those lands where Christianity has supplanted earlier and cruder manifestations of the religious sentiment. That which differentiates Christianity from the religions which preceded it is not the supernatural substratum which it holds in common with Judaism, Buddhism, Zoroastrianism, and the polytheistic cults of Greece and Rome, but certain ethical and intellectual conceptions which are readily traceable to their historical antecedents in intellectual speculation. To say nothing of the teachings of Paul and the Alexandrian school, dominant in the earlier as well as the prevailing schools of Christian theology, largely based on Greek philosophical ideas, there is an intellectual element, too little recognised, in the teachings of Jesus himself. The very "repentance" (*metanoia*), which lies at the foundation of his ethical teaching, was not a mere emotional "change of heart" as taught by Protestant divines; still less was it the "doing of penance" (*agite pœnitentiam*) of the Romish creed; it was a purely intellectual act of thinking through to the results of one's action, and thus initiating a rational change of motive.

Nor is it less evident that the movement of modern thought beginning with the Italian Renaissance and the Protestant Reformation, was essentially intellectual—a revival in its deeper motives of Greek and pagan ideas; though Mr. Kidd boldly assumes the contrary. He interprets the Reformation as a return to the primitive "super-rational" religion of the Gospels. But every theologian is aware that the Pauline and Alexandrian, as well as the later Augustinian elements in Christian doctrine were never more strongly emphasised than in the theologies which marked the period of the Protestant revival. The Christian doctrine of the Brotherhood of Man which Mr. Kidd refers to the super-rational teachings of Christianity, has in reality been of slow growth in the Christian consciousness, and has blossomed into deed *pari passu* with man's intellectual enfranchisement. The Gospel teaching, backed by no explicit condemnation of slavery by the founder of Christianity, and hindered by the countenance given to the "peculiar institution" by Paul and the almost universal custom of Christian peoples for fourteen centuries, failed to break the bonds of the heavy laden. In our own country economic conditions first rid the Northern States of the curse of slavery; climatic influences built up an opposing civilisation, and pagan powder and shell rather than Christian ethics did the rest.

We cannot think that Mr. Kidd is doing a real service to the world by asserting that the true interests of the "power-holding classes" are antagonistic to those of the people. In so far as popular rights have been secured with the consent of the "power-holding classes," it is because the latter have been intellectually convinced that their own true interests are favored by the liberation, education, and improvement of the masses.

The economic lever is to day the potent instrument by which the standard of living is being raised and the condition of the poor and oppressed is being ameliorated; and its fulcrum is in the growing intelligence of the people—capitalists and wage-laborers alike. To this power we must look for the peaceful correction of existing social inequities, not to sentimental declamation concerning the brotherhood of man; still less to an alleged super-rational sanction for this humane sentiment.

Mr. Kidd's identification of morality and religion with "super-rationalism" must give joy both to the rigid orthodox defenders of Christianity and to the crude "liberal" dogmatist who holds that the world has no further use for religion. If this assertion were well founded, the effort to establish religion on a scientific basis would be preordained to failure, and for rational minds the logical conclusion must be the entire rejection of religion. If, however, religion be understood as the reverent recognition of man's dependence upon the Supreme Reality, it may have a scientific and rational as readily as a "super-rational" sanction.

Mr. Kidd argues with much force and reason, in opposition to Mr. Herbert Spencer, that a condition of "social equilibrium," such as Mr. Spencer's ethical system contemplates, could only exist as a prelude to social degeneration. Differences in function and capacity, the competitive struggle for existence, are essential conditions to selection and must permanently prevail amongst every form of life which is not actually retrograding. This consideration should constitute a corrective of all extreme socialistic experimentation, which aims, as Mr. Kidd truly affirms, to create artificially the conditions for such a state of social equilibrium.

Though not devoid of serious faults, Mr. Kidd's work, on the whole, is a wholesome stimulus to thought and merits the perusal of all who are interested in the serious problems of our modern civilisation.

SCIENCE AND REFORM.

REGICIDE REMEDIES.

On the Plain of Prayer, south of Mecca, the traveller Burton saw an isolated rock, known as the Harrat el Sheytan, or "Devil's Head," on account of a bowlder which the enemy of mankind is supposed to have placed on the summit of the crag. Pious pilgrims endeavor to enhance the merit of their journey by flinging stones at that top-rock, and Bedouins often use it as a target to try the range of their long muskets. When the Emir of El Obid was offered the throne of the Caliph, he raised his hands in horror and then pointed to the fear-haunted rock. "Friends and brethren," said he, "I have always welcomed an opportunity to serve you, but, as for your present request, I would really as soon camp on top of the Harrat." The successors of the Prophet had, indeed, special reasons to consider a common turban preferable to a crown, but Jeremy Bentham's remark holds good that the establishment of social authority always implies the retrenchment of other rights, and that it is impossible to assert that authority in practice without incurring the open or secret enmity of malcontents. And though tyrannicide may be the last resource of the oppressed, it is equally true that under certain circumstances a mania for visiting a nation's sins upon its rulers may take the form of a moral epidemic. "Build an almshouse and save the expenses of your bodyguard," was the advice of Sultan Bajazet's vizier; but Henri Quatre's liberality could not placate the rancor of fanaticism, and President Carnot's generous confidence in the affection of his

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countrymen did not save him from the dagger of conspirators who hated him as the representative of authority, with absolute indifference to his qualities as a man. The attempt to extirpate such mutineers against the principle of law and order has overtaxed even the resources of the Russian autocrat, but it would be less impossible to improve the present plan for preventing the peculiar methods of their propaganda. "The garotting epidemic of the English metropolis," said Deputy Bergeaud, "was suppressed in a month by treating brutal offenders of that sort to a dose of the whipping post, and the mania of our political amuck-runners could undoubtedly be cured by a similar prescription. The prospect of the guillotine has no terror for those wretches, a large plurality of our butcher-knife assassins and dynamitards are men at war with themselves, as well as with society in general,—desperadoes who engage in murderous enterprises with the deliberate resolution of risking the consequences of their crimes. Their recklessness is, in fact, a modified form of suicide; they are weary of life, but dread direct modes of self-destruction, and enjoy the idea of preparing the finale of their life's tragedy with a few weeks of excitement: notoriety, the gratitude of newsmongers and the applause of their fellow fanatics. The last act of expiation, they know, will be swift and almost painless; they are insensible to shame, and exult in the thought that society is unable to hurt their feelings. It would be a good plan to dispel that illusion."

THE NEMESIS OF REFORM.

It is true that reformers are specially apt to step on the sore toes of some contemporary dreading invasion of his hereditary prerogatives, and that every change of political institutions tends to provoke the vendetta of conservative bigots. But that circumstance only emphasises the necessity of forestalling the risk of assassin epidemics, f[illegible] no dou[illegible]t that the history of the next twenty decade[illegible] [illegible] an age of reform. The world does not [illegible] of a superstition-disturbing truth:

> [illegible]rav, vergehens tüchtig,
> [illegible], man will sogar dich nichtig,"

but it is enough that the leaders of emancipation have to fight the harpy-brood of envy, bigotry, and stupidity, without unchaining the furies of nihilistic fanaticism—that hatred of social order directs its blind rage against *aristocracy* even in the sublime original sense of the word—the Rule of the Best.

SAM JONES'S PRECURSORS.

There is nothing new under the sun, even in the way of burlesque pulpit orations, and several hundred years ago the Vienna court chaplain, Abraham de Santa Clara, moved his hearers by turns to tears and paroxysms of laughter. Most of his jokes were pointed by his talent of mimicry, exerted at the expense of small and great transgressors; but some of his sermons are wholly untranslatable and would nowadays be apt to scatter even a congregation of South Carolina darkeys. Dr. Luther and his chief opponents, Eck and Hochstraten, vied in the use of grotesque invectives, and various extravaganzas of English slang have been traced to the sermons of Bishop Latimer, who, e. g., used the phrase "Going to pot," in the sense of being on the road to Dante's picnic-grounds.

THE AMERICAN SCAPEGOAT.

Four hundred years ago every public calamity was blamed on the Jews. In America the prowling tramp has taken the place of the mediæval back-alley bugbear. Unaccountable fires, murders, and dam-breaks are all booked to his credit, and even during the recent strike some fifteen different railway disasters evolved the theory that malicious vagrants must have tampered with the switches and air-brakes.

AN ANCIENT INSTITUTION.

Two hundred years ago the English Puritans would have mobbed a man for hinting that the world could possibly be more than eight thousand years old. Now Sir Archibald Gerkie demonstrates that certain rock formations of our planet indicate an age of at least 85,000,000 years. The length of what zoölogists call the mammalian era is another question, but there are reasons to believe that in the valleys of the French Jura, men, or man-like apes, existed 15,000 years ago.

A KNOUT MANUAL.

The Grand Duke Constantine is going to publish a treatise on the "Principles of Education." The work will be distributed in the Russian normal schools, and is almost sure to prove a hit, as the distinguished author is known to have a bias in favor of striking arguments.

FELIX L. OSWALD.

NOTES.

A misprint occurs on pape 4147 of *The Open Court* at the close of the article "In Memoriam of Gen. M. M. Trumbull. The phrase "the supernatural God of science," should read "super-personal God of science."

With reference to the article "The Latest Development of an Old Disease," a reader gives us the information that the name of the disease is *Debs*omania, but we are not informed whether Mr. Keeley is able to cure it.

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WHY HAS MAN TWO EYES?

A POPULAR SCIENTIFIC LECTURE.[1]

BY PROF. ERNST MACH.

Why has man two eyes?

That the pretty symmetry of his face may not be disturbed, the artist answers. That his second eye may furnish a substitute for his first if that be lost, says the far-sighted economist. That we may weep with two eyes at the sins of the world, replies the religious enthusiast.

Odd opinions! Yet if you should approach a modern scientist with this question you might consider yourself fortunate if you escaped with less than a rebuff. "Pardon me, madam, or my dear sir," he would say, with stern expression, "man fulfils no purpose in the possession of his eyes; nature is not a person, and consequently not so vulgar as to pursue purposes of any kind."

Still an unsatisfactory answer! I once knew a professor who would shut with horror the mouths of his pupils if they put to him such an unscientific question.

But ask a more tolerant person, ask me. I, I candidly confess, do not know exactly why man has two eyes, but the reason partly is, I think, that I may see you here before me to-night and talk with you upon this delightful subject.

Again you smile incredulously. Now this is one of those questions that a hundred wise men together could not answer. You have heard, so far only, five of these wise men. You will certainly want to be spared the opinions of the other ninety-five. To the first you will reply that we should look just as pretty if we were born with only one eye, like the Cyclops; to the second we should be much better off, according to his principle, if we had four or eight eyes, and that in this respect we are vastly inferior to spiders; to the third, that you are not just in the mood to weep; to the fourth, that the unqualified interdiction of the question excites rather than satisfies your curiosity; while of me you will dispose by saying that my pleasure is not as intense as I think, and certainly not great enough to justify the existence of a double eye in man since the fall of Adam.

[1] Graz, 1867. Translated by μκρκ.

But since you are not satisfied with my brief and obvious answer, you have only yourselves to blame for the consequences. You must now listen to a longer and more learned explanation, such as it is in my power to give.

As the church of science, however, debars the question "Why?" let us put the matter in a purely orthodox way: Man has two eyes, what *more* can he see with two than with one?

I will invite you to take a walk with me? We see before us a wood. What is it that makes this real wood contrast so favorably with a painted wood, no matter how perfect the painting may be? What makes the one so much more lovely than the other? Is it the vividness of the coloring, the distribution of the lights and the shadows? I think not. On the contrary, it seems to me that in this respect painting can accomplish very much.

The cunning hand of the painter can conjure up with a few strokes of his brush forms of wonderful plasticity. By the help of other means even more can be attained. Photographs of reliefs are so plastic that we often imagine we can actually lay hold of the elevations and depressions.

But one thing the painter never can give with the vividness that nature does—the difference of near and far. In the real woods you see plainly that you can lay hold of some trees, but that others are inaccessibly far. The picture of the painter is rigid. The picture of the real woods changes on the slightest movement. Now this branch is hidden behind that; now that behind this. The trees are alternately visible and invisible.

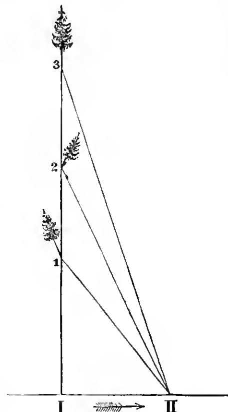
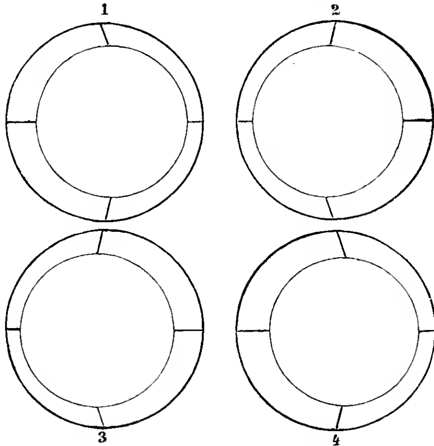


Fig. 1.

Let us look at this matter a little more closely. For convenience sake we shall remain upon the highway, I, II. (Fig. 1.) To the right and the left lies the

forest. Standing at I, we see, let us say, three trees (1, 2, 3) in a line, so that the two remote ones are covered by the nearest. Moving further along, this changes. At II we shall not have to look round so far to see the remotest tree 3 as to see the nearer tree 2, nor so far to see this as to see 1. *Hence, as we move onward, objects that are near to us seem to lag behind as compared with objects that are remote from us, the lagging increasing with the proximity of the objects.* Very remote objects, towards which we must always look in the same direction as we proceed, appear to travel along with us.

If we should see, therefore, jutting above the brow of yonder hill the tops of two trees whose distance from us we were in doubt about, we should have in our hands a very easy means of deciding the question. We should take a few steps forward, say to the right,



(Fig. 2.)

and the tree-top which receded most to the left would be the one nearer to us. In truth, from the amount of the recession a geometer could actually determine the distance of the trees from us without ever going near them. It is simply the scientific development of this perception that enables us to measure the distances of the stars.

Hence, from change of view in forward motion the distances of objects in our field of vision can be measured.

Rigorously, however, even forward motion is not necessary. For every observer is composed really of *two* observers. Man has *two* eyes. The right eye is a short step ahead of the left eye in the right-hand direction. Hence, the two eyes receive *different* pictures of the same woods. The right eye will see the near trees displaced to the left, and the left eye will see them displaced to the right, the displacement being greater, the greater the proximity. This difference is sufficient for forming ideas of distance.

We may now readily convince ourselves of the following facts:

1. With one eye, the other being shut, you have a very uncertain judgment of distances. You will find it, for example, no easy task, with one eye shut, to thrust a stick through a ring hung up before you; you will miss the ring in almost every instance.

2. You see the same object differently with the right eye from what you do with the left.

Place a lamp-shade on the table in front of you with its broad opening turned downwards, and look at it from above. (Fig. 2.) You will see with your right eye the image 2, with your left eye the image 1. Again, place the shade with its wide opening turned upwards; you will receive with your right eye the image 4, with your left eye the image 3. Euclid mentions phenomena of this character.

3. Finally, you know that it is easy to judge of distances with both eyes. Accordingly your judgment must spring in some way from a co-operation of the two eyes. In the preceding example the openings in the different images received by the two eyes seem displaced with respect to one another, and this displacement is sufficient for the inference that the one opening is nearer than the other.

I have no doubt that you, ladies, have frequently received delicate compliments upon your eyes, but I feel sure that no one has ever told you, and I know not whether it will flatter you, that you have in your eyes, be they blue or black, little geometricians. You say you know nothing of them? Well, for that matter, neither do I. But the facts are as I tell you.

You understand little of geometry? I shall accept that confession. Yet with the help of your two eyes you judge of distances? Surely that is a geometrical problem. And what is more, you know the solution of this problem: for you estimate distances correctly. If, then, *you* do not solve the problem, the little geometricians in your eyes must do it clandestinely and whisper the solution to you. I doubt not they are fleet little fellows.

What amazes me most here is, that you know nothing about these little geometricians. But perhaps they also know nothing about you. Perhaps they are models of punctuality, routine clerks who bother about nothing but their fixed work. In that case we may be able to deceive the gentlemen.

If we present to our right eye an image which looks exactly like the lamp-shade for the right eye, and to our left eye an image which looks exactly like a lamp-shade for the left eye, we shall imagine that we see the whole lamp-shade bodily before us.

You know the experiment. If you are practised in

squinting, you can perform it directly with the figure, looking with your right eye at the right image, and with your left eye at the left image. In this way the experiment was first performed by Elliott. Improved and perfected, its form is Wheatstone's stereoscope, made so popular and useful by Brewster.

By taking two photographs of the same object from two different points, corresponding to the two eyes, a very clear three-dimensional picture of distant places or buildings can be produced by the stereoscope.

But the stereoscope accomplishes still more than this. It can visualise things for us which we never see with equal clearness in real objects. You know that if you move much while your photograph is being taken, your picture will come out like that of a Hindu deity, with several heads or several arms, which, at the spaces where they overlap, show forth with equal distinctness, so that we seem to see the one picture *through* the other. If a person moves quickly away from the camera before the impression is completed, the objects behind him will also be imprinted upon the photograph; the person will look transparent. Photographic ghosts are made in this way.

Some very useful applications may be made of this discovery. For example, if we photograph a machine stereoscopically, successively removing during the operation the single parts (where of course the impression suffers interruptions), we obtain a transparent view, endowed with all the marks of spatial solidity, in which is distinctly visualised the interaction of parts normally concealed.[1]

You see, photography is making stupendous advances, and there is great danger that in time some malicious artist will photograph his innocent patrons with internal views of their most secret thoughts and emotions. How tranquil politics will then be! What rich harvests our detective force will reap!

* * *

By the joint action of the two eyes, therefore, we arrive at our judgments of distances, as also of the forms of bodies.

Permit me to mention here a few additional facts connected with this subject, which will assist us in the comprehension of certain phenomena in the history of civilisation.

You have often heard, and know from personal experience, that remote objects appear perspectively dwarfed. In fact, it is easy to satisfy yourself that you can cover the image of a man a few feet away from you simply by holding up your finger a short distance in front of your eye. Still, as a general rule, you do not notice this shrinkage of objects. On the contrary, you imagine you see a man at the end of a large hall, as large as you see him near by you. For your eye, in its measurement of the distances, makes remote objects correspondingly larger. The eye, so to speak, is aware of this perspective contraction and is not deceived by it, although its possessor is unconscious of the fact. All persons who have attempted to draw from nature have vividly felt the difficulty which this superior dexterity of the eye causes the perspective conception. Not until one's judgment of distances is made uncertain, by their size, or from lack of points of reference, or from being too quickly changed, is the perspective rendered very prominent.

On sweeping round a curve on a rapidly moving railway train, where a wide prospect is suddenly opened up, the men upon distant hills appear like dolls.[1] You have at the moment, here, no known references for the measurement of distances. The stones at the entrance of a tunnel grow visibly larger as we ride towards it; they shrink visibly in size as we ride from it.

Usually both eyes work together. As certain views are frequently repeated, and lead always to substantially the same judgments of distances, the eyes in time must acquire a special skill in geometrical constructions. In the end, undoubtedly, this skill is so increased that a single eye alone is often tempted to exercise that office.

Permit me to elucidate this point by an example. Is any sight more familiar to you than that of a vista down a long street? Who has not looked with hopeful eyes time and again into a street and measured its depth. I will take you now into an art-gallery where I will suppose you to see a picture representing a vista into a street. The artist has not spared his rulers to get his perspective perfect. The geometrician in your left eye thinks, "Ah ha! I have computed that case a hundred times or more. I know it by heart. It is a vista into a street," he continues; "where the houses are lower is the remote end." The geometrician in the right eye, too much at his ease to question his possibly peevish comrade in the matter, answers the same. But the sense of duty of these punctual little fellows is at once rearoused. They set to work at their calculations and immediately find that all the points of the picture are equally distant from them, that is, lie all upon a plane surface.

What opinion will you now accept, the first or the second? If you accept the first you will see distinctly the vista. If you accept the second you will see nothing but a painted sheet of distorted images.

It seems to you a trifling matter to look at a pic-

[1] I have employed this method for obtaining transparent stereoscopic views of anatomical structures.

[1] This effect is particularly noticed in the size of men on high chimneys and church-steeples—"steeple Jacks." When the cables were slung from the towers of the Brooklyn bridge (277 feet high), the men sent out in baskets to paint them, appeared, against the broad background of heaven and water, like flies.—*Trans.*

ture and understand its perspective. Yet centuries elapsed before humanity came fully to appreciate this trifle, and even the majority of you first learned it from education.

I can remember very distinctly that at three years of age all perspective drawings appeared to me as gross caricatures of objects. I could not understand why artists made tables so broad at one end and so narrow at the other. Real tables seemed to me just as broad at one end as at the other, because my eye made and interpreted its calculations without my intervention. But that the picture of the table on the plane surface was not to be conceived as a plane painted surface but stood for a table and so was to be imaged with all the attributes of extension was a joke that I did not understand. But I have the consolation that whole nations have not understood it.

Ingenuous people there are who take the mock murders of the stage for real murders, the dissembled actions of the players for real actions, and who can scarcely restrain themselves, when the characters of the play are sorely pressed, from running in deep indignation to their assistance. Others, again, can never forget that the beautiful landscapes of the stage are painted, that Richard III. is only the actor, Mr. Booth, whom they have met time and again at the clubs.

Both points of view are equally mistaken. To look at a drama or a picture properly one must understand that both are *shows*, simply *denoting* something real. A certain preponderance of the intellectual life over the sensuous life is requisite for such an achievement, where the intellectual elements are safe from destruction by the direct sensuous impressions. A certain liberty in choosing one's point of view is necessary, a sort of humor, I might say, which is strongly wanting in children and in childlike peoples.

Let us look at a few historical facts. I shall not take you as far back as the stone age, although we possess sketches from this epoch which show very original ideas of perspective. But let us begin our sightseeing in the tombs and ruined temples of ancient Egypt, where the numberless reliefs and gorgeous colorings have defied the ravages of thousands of years.

A rich and motley life is here opened to us. We find the Egyptians represented in all conditions of life. What at once strikes our attention in these pictures is the delicacy of their technical execution. The contours are extremely exact and distinct. But on the other hand only a few bright colors are found, unblended and without trace of transition. Shadows are totally wanting. The paint is laid on the surfaces in equal thicknesses.

Shocking for the modern eye is the perspective. All the figures are equally large, with the exception of the king, whose form is unduly exaggerated. Near and far appear equally large. Perspective contraction is nowhere employed. A pond with water fowl is represented flat, as if its surface were vertical.

Human figures are portrayed as they are never seen, the legs from the side, the face in profile. The breast lies in its full breadth across the plane of representation. The heads of cattle appear in profile, while the horns lie in the plane of the drawing. The principle which the Egyptians followed might be best expressed by saying that their figures are pressed in the plane of the drawing as plants are pressed in a herbarium.

The matter is simply explained. If the Egyptians were accustomed to looking at things ingenuously with both eyes at once, the construction of perspective pictures in space could not be familiar to them. They saw all arms, all legs on real men in their natural lengths. The figures pressed into the planes resembled more closely, of course, in their eyes the originals than perspective pictures could.

This will be better understood if we reflect that painting was developed from relief. The minor dissimilarities between the pressed figures and the originals must gradually have compelled men to the adoption of perspective drawing. But physiologically the painting of the Egyptions is just as much justified as the drawings of our children are.

A slight advance beyond the Egyptians is shown by the Assyrians. The reliefs rescued from the ruined mounds of Nimrod at Mossul are, upon the whole, similar to the Egyptian reliefs. They were made known to us principally by Layard.

Painting enters on a new phase among the Chinese. This people have a marked feeling for perspective and correct shading, yet without being very logical in the application of their principles. Here, too, it seems, they took the first step but did not go far. In harmony with this immobility is their constitution, in which the muzzle and the bamboo-rod play significant functions. In accord with it, too, is their language, which like the language of children has not yet developed into a grammar, or, rather, according to the modern conception, has not yet degenerated into a grammar. It is the same also with their music which is satisfied with the five-toned scale.

The mural paintings at Herculaneum and Pompeii are distinguished by grace of representation, as also by a pronounced sense for perspective and correct illumination, yet they are not at all scrupulous in construction. Here still we find abbreviations avoided. But to offset this defect, the members of the body are brought into unnatural positions, in which they appear in their full lengths. Abridgements are more frequently observed in clothed than in unclothed figures.

A satisfactory explanation of these phenomena first

occurred to me on the making of a few simple experiments which show how differently one may see the same object, after some mastery of one's senses has been attained, simply by the arbitrary movement of the attention.

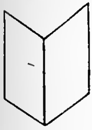


Fig. 3.

Look at the annexed drawing (Fig. 3). It represents a folded sheet of paper with either its depressed or its elevated side turned towards you, as you wish. You can conceive the drawing in either sense, and in either case it will appear to you differently.

If, now, you have a real folded sheet of paper on the table before you, with its sharp edges turned towards you, you can, on looking at it with one eye, see the sheet alternately elevated, as it really is, or depressed. Here, however, a remarkable phenomenon is presented. When you see the sheet properly, neither illumination nor form presents anything conspicuous. When you see it bent back you see it perspectively distorted. Light and shadow appear much brighter or darker, or as if overlaid thickly with bright colors. Light and shadow now appear devoid of all cause. They no longer harmonise with the body's form, and are thus rendered much more prominent.

In common life we employ the perspective and illumination of objects to determine their forms and position. Hence we do not notice the lights, the shadows, and the distortions. They first powerfully enter consciousness when we employ a different construction from the usual spatial one. In looking at the planar image of a camera obscura we are amazed at the plenitude of the light and the profundity of the shadows, both of which we do not notice in real objects.

In my earliest youth the shadows and lights on pictures appeared to me as spots void of meaning. When I began to draw I regarded shading as a mere custom of artists. I once drew the portrait of our pastor, a friend of the family, and shaded, from no necessity, but simply from having seen something similar in other pictures, the whole half of his face black. I was subjected for this to a severe criticism on the part of my mother, and my deeply offended artist's pride is probably the reason that these facts remained so strongly impressed upon my memory.

You see, then, that many strange things, not only in the life of individuals, but also in that of humanity, and in the history of general civilisation, may be explained from the simple fact that man has two eyes.

Change man's eye and you change his conception of the world. We have observed the truth of this fact among our nearest kin, the Egyptians, the Chinese, and the lake-dwellers; how must it be among some of our remoter relatives,—with monkeys and other animals? Nature must appear totally different to animals equipped with substantially different eyes from those of men, as, for example, to insects. But for the present science must forego the pleasure of portraying this appearance, as we know very little as yet of the mode of operation of these organs.

It is an enigma even how nature appears to animals closely related to man; as to birds, who see scarcely anything with two eyes at once, but since their eyes are placed on opposite sides of their heads, have a separate field of vision for each.[1]

The soul of man is pent up in the prison-house of his head; it looks at nature through its two windows, the eyes. It would also fain know how nature looks through other windows. A desire apparently never to be fulfilled. But our love for nature is inventive, and here, too, much has been accomplished.

Placing before me an angular mirror, consisting of two plane mirrors slightly inclined to each other, I see my face twice reflected. In the right hand mirror I obtain a view of the right side, and in the left-hand mirror a view of the left side, of my face. Also I shall see the face of a person standing in front of me, more to the right with my right eye, more to the left with my left. But in order to obtain such widely different views of a face as those shown in the angular mirror, my two eyes would have to be set much further apart from each other than they actually are.

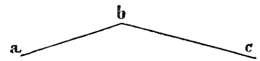


Fig. 4.

Squinting with my right eye at the image in the right hand mirror, with my left eye at the image in the left-hand mirror, my vision will be the vision of a giant having an enormous head with his two eyes set far apart. This, also, is the impression which my own face makes upon me. I see it now, single and solid. Fixing my gaze, the relief from second to second is magnified, the eyebrows start forth prominently from above the eyes, the nose seems to grow a foot in length, my mustache shoots forth like a fountain from my lip, the teeth seem to retreat immeasurably. But by far the most horrible aspect of the phenomenon is the nose.

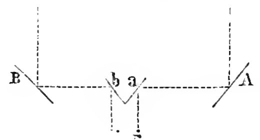


Fig. 5.

Interesting in this connexion is the telestereoscope of Helmholtz. In the telestereoscope we view a landscape by looking with our right eye (Fig. 5) through the mirror a into the mirror A, and with our left eye through the mirror b into the mirror B. The mirrors A and B stand far apart. Again we see with the widely separated eyes of a giant. Everything appears

[1] See Joh. Müller, *Vergleichende Physiologie des Gesichtssinnes*, Leipsic, 1826.

dwarfed and near us. The distant mountains look like moss-covered stones at our feet. Between, you see the reduced model of a city, a veritable Liliput. You are tempted almost to stroke with your hand the soft forest and city, did you not fear that you might prick your fingers on the sharp, needle-shaped steeples, or that they might crackle and break off.

Liliput is no fable. We need only Swift's eyes, the telestereoscope, to see it.

Picture to yourself the reverse case. Let us suppose ourselves so small that we could take long walks in a forest of moss, and that our eyes were correspondingly near each other. The moss-fibres would appear like trees. On them we should see strange, unshapely monsters creeping about. Branches of the oak-tree, at whose base our moss-forest lay, would seem to us dark, immovable, myriad-branched clouds, painted high on the vault of heaven; just as the inhabitants of Saturn, forsooth, might see their enormous ring. On the tree-trunks of our mossy woodland we should find colossal globes several feet in diameter, brilliantly transparent, swayed by the winds with slow, peculiar motions. We should approach inquisitively and should find that these globes, in which here and there animals were gaily sporting, were liquid globes, in fact that they were water. A short, incautious step, the slightest contact, and woe betide us, our arm is drawn by an invisible power irresistibly into the interior of the sphere and held there unrelentingly fast! A drop of dew has engulfed in its capillary maw a manikin, in revenge for the thousands of drops that its big human counterparts have quaffed at breakfast. Thou shouldst have known, thou pygmy natural scientist, that with thy present puny bulk thou shouldst not joke with capillarity.

My terror at the accident brings me back to my senses. I see I have turned idyllic. You must pardon me. A patch of greensward, a moss or heather forest with its tiny inhabitants have incomparably more charms for me than many a bit of literature with its apotheosis of human character. If I had the gift of writing novels I should certainly not make John and Mary my characters. Nor should I transfer my loving pair to the Nile, nor to the age of the old Egyptian Pharoahs, although perhaps I should choose this time in preference to the present. For I must candidly confess that I hate the rubbish of history, interesting though it may be as a mere phenomenon, because we cannot simply observe it but must also *feel* it, because it comes to us mostly with supercilious arrogance, mostly unvanquished. The hero of my novel would be a cockchafer, venturing forth in his fifth year for the first time with his newly grown wings into the light, free air. Truly it could do no harm if man would thus throw off his inherited and acquired narrowness of mind by making himself acquainted with the world-view of allied creatures. He could not help gaining incomparably more in this way than the inhabitant of a small town would in circumnavigating the globe and getting acquainted with the views of strange peoples.

* * *

I have now conducted you, by many paths and byways, rapidly over hedge and ditch, to show you what wide vistas we may reach in every field by the rigorous pursuit of a single scientific fact. A close examination of the two eyes of man has conducted us not only into the dim recesses of humanity's childhood, but has also carried us far beyond the bourne of human life.

It has surely often struck you as strange that the sciences are divided into two great groups; that the so-called humanistic sciences, belonging to the so-called "higher education," are placed in almost a hostile attitude to the natural sciences.

I must confess I do not overmuch believe in this partition of the sciences. I believe that this view will appear as childlike and ingenuous to a matured age as the want of perspective in the old paintings of Egypt do to us. Can it really be that "higher culture" is only to be obtained from a few old pots and palimpsests, which are at best mere scraps of nature, or that more is to be learned from them alone than from all the rest of nature? I believe that both these sciences are simply parts of the same science, which have begun at different ends. If these two ends still act towards each other as the Montagues and Capulets, if their retainers still indulge in lively tilts, I believe that after all they are not in earnest. On the one side there is surely a Romeo, and on the other a Juliet, who, some day, it is hoped, will unite the two houses with a less tragic sequel than that of the play.

Philology began with the unqualified reverence and apotheosis of the Greeks. Now it has begun to draw other languages, other peoples and their histories, into its sphere; it has, through the mediation of comparative linguistics, already struck up, though as yet somewhat cautiously, a friendship with physiology.

Physical science began in the witch's kitchen. It now embraces the organic and inorganic worlds, and with the physiology of articulation and the theory of the senses, has even pushed its researches, at times impertinently, into the province of mental phenomena.

In short, we come to the understanding of much within us solely by directing our glance without, and *vice versa*. Every object belongs to both sciences. You, ladies, are very interesting and difficult problems for the psychologist, but you are also extremely pretty phenomena of nature. Church and State are objects of the historian's research, but not less phenomena of nature, and in part, indeed, very curious phenomena.

If the historical sciences have inaugurated wide extensions of view by presenting to us the thoughts of new and strange peoples, the physical sciences in a certain sense do this in a still greater degree. In making man disappear in the All, in annihilating him, so to speak, they force him to take an unprejudiced position without himself, and to form his judgments by a different standard than that of the petty human.

But if you should now ask me why man has two eyes, I should answer:

That he may look at nature rightly and accurately; that he may come to understand that he himself, with all his views, correct and incorrect, with all his *haute politique*, is simply an evanescent shred of nature; that, to speak with Mephistopheles, he is a part of the part, and that it is absolutely unjustified,

> "For man, the microcosmic fool, to see
> Himself a whole so frequently."

CORRESPONDENCE.

UNIVERSAL RELIGION.

To the Editor of The Open Court:

In your editorial remarks upon my plea for pure unsectarianism, kindly published in the issue for July 26th, you make the powerful declaration that

> "There is but one catholic or universal religion: the religion of truth, which not only allows, but demands, a free investigation of its tenets, rejecting any and all personal authority, and accepting that which according to the strictest methods of science can be proved to be true. There is but one institution on earth which is truly catholic in principle: it is science, and we shall have no catholic religion until we have a religion of science."

But what *Christian* church from the Roman Catholic to the Unitarian can claim to have "broadened into a church universal"? Does not the very name *Christian* indicate that the Christian confession of the *lordship of Jesus* constitutes the ultimate authority to which appeal must be made? To be sure, Christianity, like all the other ethnic faiths, contains a *universal* element and a *special* element. But it is the latter and not the former that gives it its name and character. Christianity is a religion in virtue of its universal element, it is the *Christian* religion by reason of its special *distinctive* claim, namely that Jesus is the Christ, the Lord and Master of mankind. Here then we have the very antithesis of the method of science in determining truth, for Christianity makes the authority not of reason, but of the spiritual Lord, the Christ, ultimate and supreme.

If then a church retains its Christian name and connexions while it professes to stand for "scientifically provable truth as the *highest* authority," it simply occupies a contradictory position in the eyes of the world. It does no good to *talk* free trade if one *votes* protection. Our ideas should not be compromised by our practical connexions. This is what *consistency* demands and it was with a view to occupying such a *consistently un*sectarian position that the Tacoma Unitarian Church *changed its name* and *surrendered its Christian connexions* when it once decided to stand for universal and unsectarian, free religion. Not "numbers" nor "the name" nor even the "spirit" makes a religion unsectarian but the *quality of its principle*, its aim to work for *universal and not sectarian* ends. The little Tacoma Free Church is therefore not a sect at all, while Christianity with its millions is distinctly sectarian. When the churches of the ethnic religions *thoroughly* believe in brotherhood they will no longer wish to retain sectarian, excluding names, but give them up for the sake of love. The *special* element in all religions is their transient element, yet also the element which makes them *what they are* as distinguished from one another. The universal in them all is permanent. This we must cherish and it can be discovered by the scientific method, the only method whereby truth can be successfully obtained. Alfred W. Martin.

[Mr. Alfred W. Martin pleads again for a universal religion not tainted by the sectarian dogmas of traditional Christianity, and from this standpoint rejects the name "Christian." Mr. Martin is right in rejecting the name Christian for himself and the members of his congregation who think like him. For him it would be wrong to call himself a Christian so long as he understands by Christianity the blind acceptance of the doctrines which Jesus Christ, according to the belief of the Christian churches, is supposed to have taught. So far we agree with Mr. Martin, and at the same time we heartily support his demand for discussing the basic principle of our convictions, which alone can give character to our religion. But we object to his request for others to drop the names "Unitarian" or "Christian" because to *him* it has ceased to be appropriate. There are people, and I have met many of them, to whom the word Christian does not mean what it means to Mr. Martin, and it appears to me that these people have a right to call themselves Christians and to define their understanding of Christianity as they think fit.

In my childhood I was taught that Christianity was the doctrine of Christ, and the doctrine of Christ that body of truths and ethical injunctions which is taught by the Church; it had been corrupted by the pagan influence of the Romish clergy, but Luther and other reformers had restored it to its primitive purity. Only he who accepts the Christianity thus warranted by appointed authority to be genuine, had a proper right to call himself a Christian; others had no right to adopt the name. This seemed to me very plausible, and as I could not accept the Christianity of any of the churches, I saw fit to drop the name and to denounce Christianity as a superstition that was to be discarded.

In the meantime I met many people who rejected the dogmas of the churches not less vigorously than myself, yet continued to call themselves Christians; and, saying that a Christian could only be one who held a view patented by at least one of the Christian churches, I attempted to convince them of their inconsistency and to prove to them that, even granting their sincerity, their position would be misunderstood. But by and by, in my attempts to convince liberal Christians of the impropriety of their calling themselves Christians, I came to the conclusion that they had as much right to interpret the name as any church, pope, or synod.

The question has often been raised, who is a Christian, and it has been answered in many different ways. One theologian says he who believes in the œcumenical symbols, especially the Apostle's creed. That sounds logical enough, but how few are the Christians of to-day who believe it still? Another one says, he who believes that Jesus Christ died on the cross for our sins and rose again from the dead. A third says, he who is an exemplification of Christian ethics, who loves his fellow-beings as himself and leads a life of righteousness. This last test of Christianity has found a strong supporter in Lessing, who with unanswerable criticism and rigorously logical acumen proves to his dogmatical antagonists that Christianity existed long before the creeds and even the gospels, and that no written document can be regarded as more than a special conception and interpretation of Christianity as held by its author and by those who adopt his views.

Lessing's Christianity, which he expounded so admirably in his grand religio-philosophical drama, "Nathan the Wise," cannot be accused of sectarianism; it is as broad as the universe and as catholic as truth, and when the Christian finds a Jew whose actions are what he is accustomed to call Christian, he exclaims: "Nathan, you are a Christian!" Whereupon Nathan replies: "That which makes me to you a Christian, makes you to me a Jew."

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Mr. Martin must not say that Lessing "occupies a contradictory position" in the eyes of the world. Lessing considers "the universal element" as essential in Christianity, while Mr. Martin declares that "its special element gives it its name and character." There is a difference of definition, and what definition will in the long run be adopted by "the world" is not for us to say. The world may after all retain the name Christian and fill, as has been done over and over again, its old bottles with new wine.

Christianity and Judaism are so near to us that it is difficult to be impartial, especially if we have just succeeded in emancipating ourselves from the egg-shells of dogmatism. We may be fairer to other religions, the superstitions of which are not so strongly brought home to us.

It is now a year ago since I met the venerable representatives of several Buddhistic sects at the Parliament of Religions in Chicago, and I was astonished both at their earnest desire to preach to the Americans the good law of Buddha and at their broadness in standing solely upon scientifically provable truth. They revered Buddha as their teacher and worshipped him as the incarnation of the moral law of the world. They praised him as their saviour because by his pure example and impressive teaching he had shown them the way of salvation. He had explained that egotism was a disease and hatred a malicious fever, that love embracing all life with benevolence and goodwill was the healthy state of mind, and that the peace of Nirvâna is attainable here upon earth by all who would obey his noble exhortations. Now, it is an indubitable fact that the great mass of Buddhists are much more superstitious than the worst Roman Catholic saint-worshippers. But shall we on that account forbid those few Buddhists whose views are purified and elevated to call themselves Buddhists? It appears to me that they are at liberty to call themselves whatever they think best.

Buddhists recognise the lordship of Gautama Siddhârtha and call themselves after his title of honor without thereby renouncing the universality of truth or suppressing the duty of rational inquiry. Thus a follower of Kant may call himself a Kantian because he recognises in Kant his teacher who taught him the truth, but not because the *ipse dixit* of his master supersedes demonstrated truth itself.

Now my position is that we should be very crucial in stating the principles and the substance of our convictions, but that we should leave people unbounded liberty in retaining or rejecting names. The truth is one, but the names which the disciples of truth may choose to be known by are many.

It appears to us that the Liberal Religious Congress could not expect its members to cut themselves off from their connexions, fellowship, and historical traditions, but it should have proclaimed in a pithy and unmistakable way the principle of the views they hold in common and their conception of religious truth. And this, it seems to us, was the purport and esoteric meaning of Mr. Martin's proposition, which should have received more consideration and ample time for discussion.—Ed.]

BOOK NOTICES.

Mr. Horace P. Biddle, of Logansport, Indiana, sends us two works entitled *The Musical Scale* and *Prose Miscellany*, together with several pamphlets on the subject of harmony. In these books Mr. Biddle impugns the theory of harmony generally accepted in the scientific world (see, for example, the lecture of Professor Mach published in No. 358). Mr. Biddle denies that every musical note contains certain of its harmonics; if this theory were true, he says, the harmonics of every concord would produce a mass of discord: results which he claims to prove by simple and easily repeated experiments. Curious readers of these subjects, who are disposed to examine all views with impartiality, must be referred for the full exposition of the theory to Mr. Biddle's own works, which are easily accessible.

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BUDDHISM IN JAPAN.

I. THE RELIGIOUS COMPOUND IN JAPAN.

BY NOBUTA KISHIMOTO, M.A.

Some fourteen centuries ago when Buddhism was first introduced to Japan, it met with strong opposition, mainly on the ground that the natives of Japan ought to worship their own gods and ought not to adopt a foreign religion. It is a strange fact that at the present time there are many Japanese Buddhists who use just the same kind of argument against the introduction of Christianity. They say that the Japanese must adhere to their old religions and must not adopt Christianity—a foreign religion. They seem to forget the fact that Buddhism itself is as much a foreign religion as Christianity is, or else they seem to ignore the fact purposely in order to oppose the spread of Christianity. Once it was the followers of Shintoism that opposed the entrance of Buddhism into Japan, and now it is mainly the adherents of Buddhism that oppose the introduction of Christianity.

This is a strange fact indeed, but this fact shows at once the extent and strength of the influence of Buddhism among the present Japanese. Japan is often spoken of as a Buddhist country, and its whole population is counted among the Buddhist believers. In one sense this is true, but in another sense it is not. With the exception of some extreme cases, there will be found few Japanese who are *exclusive* Buddhists, that is, who believe in Buddhism alone, to the entire exclusion of Shintoism and Confucianism. Indeed even among monks and priests there are not a few who worship the gods of Shintoism. Thus on the one hand the Japanese nation, as a whole, cannot be regarded as belonging to Buddhism, if by this it is meant that all Japanese are exclusive believers in Buddhism; but on the other hand, the greatest majority of the Japanese people can safely be regarded as Buddhists, or at least Buddhistic, so far as the general influence of Buddhism is concerned.

To make this point more intelligible, I must say a few words about the different systems of religion and morality which exist together in modern Japan and their attitude towards one another. There are three different systems of religion and morality in Japan, Shintoism, Confucianism, and Buddhism. Shintoism consists of the worship of the powers of nature, under the different forms of Ancestor-worship, Heaven-worship, Nature-worship, Fetish-worship, and so forth. From another point of view it is a religion of purity and gayety. This is the native religion, and no doubt it is as old as the nation itself. Then Confucianism made its way to Japan from the Asiatic continent some sixteen centuries ago, and it was welcomed because it inculcated nothing incompatible with Shintoism, its essential teaching being obedience and faithfulness, justice and mercy.

In Japan Confucianism was never understood as a religion. It simply supplied the rules of life. While the integration of these two systems was going on, Buddhism was introduced in the middle of the sixth century of the Christian era, that is about three hundred years after the introduction of Confucianism. At first it met with pronounced opposition, owing to the strong national feeling against foreign religions. But in the course of time its real nature became gradually known. Men came to realise the truth of the teaching of the misery of the present world and the consequent need of salvation. Thus once despised Buddhism became at last a popular religion of Japan. But in this it did not drive out Shintoism and Confucianism. Shintoism supplied the objects of worship; Confucianism furnished the rules of life; while Buddhism pointed out the way of salvation. Severally these three systems were defective, each representing, as it were, only one of the three corners of a triangle. But together, they were able for the first time to satisfy all the religious and moral wants of our countrymen. Thus when we say there are three systems of religion and morality in Japan, this does not mean that each one has its own distinct and exclusive body of believers. On the contrary, the tenets of the adherents of these three different systems so frequently overlap that, generally speaking, one and the same Japanese plays in his religious life a *triple* part, worshipping the Shinto gods, adopting the Confucian rules of life, and believing in the Buddhist salvation in the blessed Nirvâna.

If one asks, *Which* of these three elements, that together form what I have elsewhere called the Jap-

anese *religious compound*, is the most influential and most important, there can be but one answer. Buddhism has been and is the most influential and the most important. One or two facts will indicate how much influence was exerted by Buddhism in moulding Japanese thought and life. One striking evidence of the influence of Buddhism is the almost complete abolition of animal food, not only among the Buddhist monks and priests, the majority of whom are strict vegetarians, but also among the people of Japan in general. In our early ages animal food seems to have been very common. Even in the Shinto rituals collected in the tenth century of the Christian era, there is mention of "the things rough of hair and the things soft of hair," that is, animals, among the offerings made to the Shinto gods. We have, too, evidence that at that time animal milk also was used. Compare this with the present state of things. We look in vain for the explanation of such a great change in the principal food of the Japanese people, in anything else than in the deep religious influence of Buddhism.

Additional proof is found also, in the fact that Buddhism pessimised Japan, although it is true, on the other hand, that Japan optimised Buddhism. As far as the evidences go, the early Japanese must have been of a merry temperament. They seem to have lived mainly in the present. To live happily with their gods and fellowmen seems to have been the end of their life. Their religion was nothing but the means of enjoying their present life to its utmost extent. This primitive temperament of the early Japanese still lingers to some extent with the present Japanese. But in spite of this, the deep and general pessimistic tendency is also plainly recognisable. Take almost any novel of Japan to-day. You will find in it a great deal of Buddhistic phraseology and a certain melancholy running throughout the work.

You might ask why such a pessimistic religion as Buddhism became so prevalent in Japan as almost to overwhelm the original joyous character of the people? I think there are three things at least in Buddhism which made it prevail. First, Buddhism appeals to the consciousness of sin and to the misery of this world. The consciousness of sin is found in one form or another among all the peoples of the world. It was found, too, among the early Japanese. Hence Shintoism has certain forms for the purification of sin. But Shintoism is a primitive religion, very simple and very crude. It has no satisfactory way of meeting or removing this consciousness of sin, nor does it offer an explanation of the misery of the present world. Whereas, Buddhism explains the misery of the present world, tracing its cause to our sin, our sin to our desire, and our desire to our ignorance. Secondly, Buddhism emphasises very vividly the rewards and punishments of the future world. Both Shintoism and Confucianism either ignore or are ignorant of a future existence. This is one of the reasons why neither of these two systems has a strong influence upon the minds of men. Buddhism, on the contrary, teaches not only the future but also the past existence. When human intelligence makes some progress, the first question, at least one of the first questions, which arrest man's attention, is the problem of death and the condition after death. It is quite natural that this problem was one of the centres around which superstitions arose and grew almost everywhere. The early Japanese were in such a condition when they came in contact with the Buddhistic doctrines of paradise and hell and of the transmigration of the soul. Thirdly, Buddhism offers the way of salvation. Even though we know both the cause of the misery of the present world and the existence of future life, happy or miserable, yet if we were not supplied with the way to escape from this world of sin and secure the future happiness, this knowledge would be worse than none. Buddhism supplies both this knowledge and also the way of salvation.

As to the nature of this way of salvation, the different sects of Buddhism differ in their opinions, as we shall see in a subsequent paper, some ascribing salvation to the merit of our own discipline, others to the saving mercy of the Amitabha Buddha. But whatever these differences may be, these sects all agree in offering *some* way of salvation, the essence of which consists in the liberation of man from the misery of the present life and also from the weary circuits of birth and death, and in the final attainment of the blessed Nirvâna.

These three, in brief, are the reasons, so far as I can see, which made Buddhism the most important and the most influential element of our religious compound. It is all the more interesting to know that just these were the points which were most strange and repugnant to the Japanese mind when Buddhism first entered Japan.

HUMANITY'S TANGLED STRANDS.

BY IRENE A. SAFFORD.

It is impossible to help feeling that in some way the ends of Providence in creating man "male and female" have been defeated. It is beyond credence that it was ever intended to pit the two halves of the human race against each other in such a way that, even in our enlightened nineteenth century, no subject, however grave or general, can quite escape the fire of their artillery, nor any living creature flee from that apparition of "the coming woman," or "the passing man," which, in one form or another, haunts every stage of life and literature. No one who believes in the benefi-

cent ends of life can possibly suppose that, for beings of the same interests and destiny, there was meant to be "the man's age" and "the woman's age" and the long centuries clashing over the rights of one and the wrongs of the other.

It is difficult to tell when in the cycles of time—in what matriarchal or patriarchal period—the trouble began, or from what gardens of peace and innocence it expelled its first victims. It is certain, however, that it must have taken more than one bite of the forbidden fruit of the tree of knowledge to make man and woman so painfully conscious that they were man and woman as to set up that black wrangle over the matter that has followed them down the ages; and it is one of the curious things in the subsequent history of that knowledge, that, despite the trouble of it, man has in no wise been invited to forget it or leave it to the gentle gods of love and nature, to whom it was first committed, but rather encouraged by the "higher lights" of society to tangle it up with every remotest question of law, politics, or religion. Thus grave legislators and Christian teachers, instead of devoting themselves to fundamental principles of truth and justice, have turned aside to declare upon what days a man might kiss his wife, or what covering a woman should wear on her head. And, in one way or another, the profane work has gone on, till truths and relations that should be sacred to the highest gods have become the sport of political campaigns, the planks in party platforms.

The old Greeks, who touch the key note in about everything, gave us the droll comedy wherein men and women were in the beginning literally and physically one. And it was only when, in the whirl of life, they were torn apart from each other that the trouble began in the efforts of the two halves to come together again and getting hopelessly mixed up in the operation.

Whether the point of the satire was meant to touch the general or domestic relations of mankind, it certainly contained a primal truth in regard to the whole case, and that is, that it is not in their divided but united capacity that men and women are to conserve the peaceful ends of life and find the "harmony that dwells in immortal souls." And hence, any cause which presents itself as the cause of one, or the cause of the other, instead of the cause of humanity, weakens its best claims. It may be with some comprehension of this truth that politicians attempt to throw the odium of the "woman question, or the "female suffrage movement," upon matters which should be only question of popular government and general weal, and it is strange enough that woman herself has fallen into the snare and will rise up at national celebrations and religious congresses, where questions of eternal truth and import are before the meeting, and express her pleasure that "women are allowed a place on the platform," and proceed to set forth their individual claims and achievements. The earnest colored woman who at the late Parliament of Religions spoke for her benighted race, as "we, the colored people of America," without an intimation that there was any distinction of male or female, bond or free, in the great tribunal of souls to which she appealed, could have taught her white sisters some wholesome lessons on the subject.

"Do you believe in the higher education for woman?" asks the complaisant youth. "Oh, yes, and even for man," replies the sarcastic maiden, and if all women would treat the troublous question in that neat fashion, the difficulty in the case might sooner be adjusted.

It is the eternal posing as the man or woman in the play that keeps the grand drama of humanity from moving on to its full action. When all parties recognise that any advance step must be general and can in no sense include one sex without the other they will cease to talk of "progressive woman" or "aggressive man," and turn their attention to the progressive civilisation and on-marching truth which are surely bringing the spirit forces to the front and resolving the battle to whomsoever holds them. The degrees of goodness and spirituality are as marked between man and man as between man and woman, and whoever possesses the higher degree in any case has the angelic privilege of helping the one of lower up to it, whether as the waiting Mary or the beloved John in the kingdom of righteousness. The higher either sex can climb in that direction the better it will be for the other, for it is certain that, with all the ado that has been made about it, there is nothing to fear from the superiority of either but much every way from the inferiority. As stated, however, it does not seem to be the economy of nature to grade its saints and sinners in that way. There are good men and bad men, good women and bad women, and the attempt to fling the distinction of sex into the question is altogether an unnatural and injurious one. So is it, too, with the virtues which go to make up good men and good women. It is not necessary to run the sex line into them for any purpose whatever, and wherever it is done it proves a mistake. Everybody knows the havoc that has been made with all standards of right and wrong in this way, and it is not difficult to discern that even the gentler graces and courtesies of life have been turned astray by it. The kindly consideration, due everywhere from one human being to another, the help that should be given everywhere, where it is needed, have been made matters of gallantry or social etiquette, depending mainly upon well-preserved lines of demarcation between man and woman, so that, by the nice

logic of the position, if one woman in Kansas began, as a Western editor classically puts it, to "whoop it up" for feminine rights and equality, another woman in Illinois, just off a sick-bed perhaps, might find herself compelled to stand for weary miles in a street-car, while stalwart men held the seats, the natural and kindly principle of giving the seat to the one who needed it most, whether man or woman, having become so hopelessly lost in the obnoxious question as to whether the frail creature in the case "wanted to be man or woman."

Now if only society, politics, and religion would entrust the "man and woman" part of life's problem more to sweet nature's care and turn their attention to the establishment of those principles of truth, righteousness, and love which are at the heart of all life it may be that the clash of arms would cease and any distinguishing qualities of grace or gentleness, strength or skill in either sex find their true place in ministering to the exaltation of both.

Certainly the wretched spectacle of women "going up and down the land, clamoring for their rights," as the newspapers have it, and Christian ministers and lawyers rising up and calling them "Andro-maniacs" and "howling dervishes" for doing it, could no longer disgrace humanity and, in the calmer atmosphere, it might be possible for mankind to discern some really sweet and beneficent ends for which they were made man and woman, and cease to twist the double strand into unnecessary knots and tangles.

THE EMANCIPATION OF WOMAN FROM WOMAN.

BY WILLIAM SCHUYLER.

In many things the emancipation of women is now complete—at least in America and in some European countries—although the most essential thing is not yet achieved. Our women are no longer locked up and guarded by slaves. They are free to go and come as they please, to dress as they please, and, as far as men are concerned, to talk as they please. The laws that concern property are notoriously in women's favor. They may also undertake any form of work they desire—they may be lawyers, doctors, preachers, or journalists; they may and do displace men in any position where they are willing to take lower wages. Even the ballot is in their power, whenever a sufficient majority of the women really want it, and in several places they have already obtained it; though what they will do with it, without the physical force to put the laws they vote for into execution, passes my comprehension. In short, women can get from the men whatever they want—that is, if their minds are fully made up as to what they wish, and they go about it the right way.

This is no new idea. The truth of it has been recognised by thinking men for ages. The old Roman orator, Hortensius, is reported to have said: "It is utterly impossible to get along with women, and as utterly impossible to get along without them." And the Athenian, Aristophanes, in his inimitable "Lysistrata," has drawn a broadly comic, but altogether probable picture of how the males could be quickly brought to terms by a well-conducted strike of the females. For man has always felt his incompleteness without his feminine complement—it is only the women who believe that they can get on without the males. The mystic, Swedenborg, put the case neatly, when he said that in Heaven it takes two persons of opposite sex to make one angel. In short, from the earliest days of creation it has been admitted that "it is not good for man to live alone." And the poor male has done everything in his power to make his necessary female complement satisfied and agreeable.

And yet woman is enslaved. To be sure, a large majority of the male sex, even in civilised countries, are also still enslaved in various ways; yet there is no doubt that male beings are, as a whole, much freer than the female portion of humanity. There is no doubt, also, that woman needs emancipation—but not from men's tyranny. What she needs is emancipation from women.

In all parts of the world she is held in a more or less grinding slavery, but it is the women who do most to check her rising aspirations. Travellers tell us that in Mohammedan countries the women are the strongest supporters of the harem. A wife of a well-to-do Mussulman would think that her husband did not value her sufficiently, unless he locked her up and placed a guard of eunuchs over her. In Nubia, young girls are subjected to unnamable atrocities in order to preserve their virtue intact, but the awful torments are inflicted entirely by feminine hands. A writer in *The Monist* says: "In New Caledonia, when the men wish to punish a woman, they turn her over to her companions, who inflict upon her horrible tortures. Sitting on her body, they cut her flesh with sharpened stones." In our country a similar practice prevails. Here also the women sit upon an unfortunate sister, only, our females being much more intelligent, have discovered that the tongue is by all odds the sharpest weapon.

And this weapon is used to enforce the most grinding oppression—a chain of rigid conventions, which hold poor woman fast in cringing terror. Who have made them? Women say, the men; but certainly it is not the men who enforce them. Who has ever heard of a *Mr.* Grundy? But where is the woman who has not at some time quailed before the terrible tongue of the redoubtable *Mrs.* Grundy?

It will not do to say that women do these dreadful things because they are forced to do so by the men, for this would be a confession of essential inferiority,

which no woman clamoring for emancipation should allow herself to make. To be sure, some women do say so, but it is not true.

Let us look at the matter somewhat in detail.

To begin with the important matter of dress. Women do not dress for men. Few men notice the details of a woman's dress, and in their case it is the result of feminine training. Most males are impressed by the *tout ensemble*. If a woman is neatly and tastefully attired, they care little about the material or the style. While men ruled the world, woman's attire was simple and tasteful, and styles changed gradually with the centuries. Now that woman's day has come, we have new and utterly opposed fashions every season, each one more senseless, more bizarre than the other. Only one thing has remained for the most part unchanged—the corset. Men's bodies have always remained free and untrammelled as Nature made them; but women's fragile forms are forced into unyielding stays to remould them into woman's idea of the human figure, far removed from the model furnished by Mother Nature. And not only is their bodily freedom destroyed by these contrivances; but their mental and moral freedom is cramped by the strait-laced corsets of conventionality, warping and stunting woman's life in almost every phase.

In her special business of housekeeping, woman is also enslaved by women. Few men notice "good housekeeping." Give them a good dinner, a cosy room, an easy chair, and a smiling bit of femininity, and the low fellows are content. But the moment a woman enters the house of one of her friends, she peers about to see if there is dust in the corners, if a book or a cushion is misplaced, if—any one of the infinite and infinitesimal details of "good housekeeping" is neglected. And her unfortunate hostess immediately feels that all her trifling shortcomings are deadly sins.

An honest woman once said to me, "I don't mind how often my husband brings his bachelor friends to dinner. They seem perfectly satisfied with what is set before them, and with the way it is served, if only they get enough to eat, and have a good place to smoke in after dinner. But to invite one of my women friends—that is an altogether different matter."

Then, too, in their conversation, women talk for women. For their life they dare not say what will bring down upon them the disapproval of their sex. This has been my experience, even with women of most advanced ideas. To me, in *tête-à-tête*, after having assured themselves of my discretion, they would talk in the frankest and most emancipated manner; but let a woman come in, all liberty of thought and expression would vanish in an instant, and the conversation would take a strictly proper and conventional turn.

Women are the unscientific sex. For though many women are fond of a certain superficial knowledge of popular science, yet—with very few exceptions—they lack the genuine scientific spirit which ever follows the truth, no matter where it may lead. It is utterly impossible, where several women are present, to discuss many subjects completely—especially if the line of thought tends to enter certain highways of physiology tabooed by womankind, which are, however, absolutely essential to any really scientific discussion of anthropological and sociological subjects—above all essential to this very subject of woman's proper place in human society.

So, women dress for women, keep house for women, talk for women, live for women, and wear themselves out for women—to the endless discomfort of the men. And what makes this all the more exasperating, is that these same women allow many things to men, especially if they happen to like them, which they will not endure in each other. A woman will lean on the shoulder of a man who is strongly perfumed with tobacco, and even bring him a match for his horrid pipe or cigar. But let her once see another woman light a dainty cigarette, and she is filled with horror and loathing. If a man, as is often the case with this imperfect being, makes a slip or falls, there is nearly always some good woman to help him up, and stand by him till he gets a firm foothold again. But let some sister woman deviate a hair's breadth from the strict rules of Mrs. Grundy; and this tender, yielding, compassionate being becomes as hard as steel and as relentless as death.

I know of a case where an innocent girl was basely slandered, and, of course, was given no opportunity of justifying herself, but was summarily dropped by all the virtuous members of her sex who knew her—by all except one, a marvellous exception, her intimate friend, who, happening to be thoroughly acquainted with all the facts in the case, and besides having a deep affection for her friend, still stood by her. But this staunch friend was also finally dropped by the paragons of virtue, because she refused to treat an innocent woman as if she were a hardened and unrepentant sinner. And, as everybody knows, this case is by no means an exceptional one.

Let a woman once try to be really emancipated, to make her own way in the world, and whom must she fear, the men or the women? I can but give the answer by quoting from an article written by a woman, Mrs. Amelia C. Barr, which is an excellent statement of woman's attitude in such cases:

> "Society has laid down positive rules regarding the modesty of a woman, and, apart from these rules it is hard to believe that modesty can exist. For all conventional laws are founded on principles of good morals and good sense, and to violate these destroys nicety of feeling, sweetness of mind, and self-respect."

Now, what is this modesty? Physical as well as moral modesty is the product of circumstances which change with every age, with every clime, and are generally founded on some irrational basis, some antiquated tradition. In one country it is immodest to uncover the face in public, in another, the leg. In our enlightened land, let a woman put on a short skirt or kilt for comfortable walking, and who would object? Certainly not the men—if she were pretty.

Let a woman try to be free and equal with men, to have no nonsense, but only a frank comradeship, such as men have with each other, and what would be the result? Here again I let Mrs. Barr speak the woman's view:

"In all stations of society, it is a dangerous thing for two people of the opposite sex to chant together the litany of Plato. Those who enter into 'friendships' of this kind with what they think are the most innocent intentions, should sharply arrest themselves as soon as they are talked about. For in social judgements, the doctrine that, 'people talked about generally get what they deserve,' is true, however unjust it may appear to be."

In the last lines of the above quotation we have the gist of the whole matter, the cause of woman's enslavement by women. Women, as a class, do not know what justice is. You may expect kindness, pity, or mercy from woman, but never justice.

Yet justice is the basis of all true freedom, and women can never be really emancipated till she learns to be just.

But what is the cause of this injustice from which all women suffer? Injustice always arises from a feeling of caste, from the idea of one class of human beings that it is essentially superior to another. A good example of this was the kind but unjust slaveholder of *ante bellum* days. It is true that for the most part he treated his slaves very well, and that they had under him far more comfort than most of them now enjoy. They experienced kindness and consideration; but not justice, for justice meant emancipation.

And the trouble with woman is that she considers herself a superior being. In that farrago, "The Heavenly Twins," a certain Ideala says, "The Spirit of God, it is in us women." A woman once quoted to me with evident appreciation the words of a little girl, "The worstest woman is better than the bestest man." And lately, another told me of a little girl who asked her mother, "What good are boys for anyway?" Before her mother could answer, her brother entered, carrying an armful of wood and a pail of water. "Oh," said the little girl, "I know. Boys are good to bring in wood and water." And it must be admitted that this is the idea which many women have of the function of the male sex.

It is a sad truth that women believe that though they may be a little lower than the angels, yet *morally* they are vastly superior to men. It is probably on account of this belief that they are so cruel to any woman who may happen to fall from this lofty position.

But is this correct? Is it not rather that each sex is about equal morally, each with its own special virtues and its own pet vices. To be sure women as a rule are chaster than men, as is natural from their physical constitution, and then they do not allow themselves many indulgences that men give way to. But are they more honest, more just, more charitable?

It is well known that men get along with each other much better than women do. The inside history of any woman's club will testify to this.

Man's life in the world continually calls for the exercise of the virtue of charity. In order to live at all in the world of business he must pass by many things which he cannot indorse. Daily he is called upon to make compromises, and to say, "Let him who is without sin first cast a stone." A man, in order to be himself free, must allow liberty to others. But woman, on the contrary, is absolute mistress of her domain, the household. Her children and servants obey her implicitly. So it is very hard for her to give way to the rights of others, to allow to her sister women the same liberty which men every day must accord to their fellows.

If rigidity is morality, then women are far more moral than men; and I fear that this is woman's conception of morality.

In talking over this point with a bright woman once, when I asked her why women did not treat each other as men did, she replied with great disdain, "Would you have us come down to your level?"

But why not come up—or rather come *out*—come out from the narrow bonds in which woman has been held for so many centuries, and be really equal and free?

For all progress has been in the direction of equality, in the wiping out of class-distinctions, that is, in the diminution of injustice. And only in that way can any real advance be made. Let women learn to understand freedom, that is, equality. Let them learn to bear with each other, to pardon each other, to endure cheerfully what they cannot change, even if they do not agree with it. Let them learn to discuss freely and thoroughly every question, even if it should lie in the domain of physiology. Let them learn to be just.

Woman's chief difficulty is that she is not generally willing to see *all* things as they really are, and so try to understand them thoroughly. Too many important subjects are forbidden to her—forbidden by her own sex. And above all, she has so high a consideration for the Ideal Woman, that she has no room left for sympathy with the individual woman who may need her aid.

What use would the ballot be in the hands of those who understand not freedom, who understand not equality, who understand not justice? How can woman be emancipated from man's control before she emancipates herself from herself? She must learn that

> "They are slaves, who dare not be
> In the right with two or three."

But the day of woman's real freedom is dawning—though it will not come by way of the ballot-box. The desire for freedom is here. The actuality must follow. For woman has ever had what she really wanted—from the apple in the Garden of Eden to the ballot in the State of Wyoming.

And the true path to woman's liberty has naturally been pointed out by men. For it is through men that women have always achieved their desires. Auerbach, in "On the Heights," signalises Irma's emancipation by this entry in her journal:

> "'What will people say?' In these words lies the tyranny of the world. This question makes the mind homeless. Do right and fear no one. Rest assured that with all thy consideration for the world thou wilt never satisfy the world. But if thou goest on thine own way, never heeding the friendly or unfriendly glances of mankind, thou hast conquered the world. But when thou regardest the words, 'What will people say?' then thou hast become subject to the world."

And Ibsen, that mighty champion of the true rights of women, has pointed out the same road to freedom. In "The Doll's House," Nora announces to her husband her emancipation in these words:

> "I think that before all else I am a human being, just as much as you are—or, at least, I will try to become one. I know that most people agree with you; but henceforth I cannot be satisfied with what most people say. I must think things out for myself, and try to get clear about them."

And then comes the ringing defiance of the truly emancipated woman. When her husband says, "You talk like a child, Nora. You don't understand the society in which you live," Nora replies, "No, I don't. But I shall try to. *I must make up my mind which is right—Society or I.*"

SCIENCE AND REFORM.

DEFINITIONS OF LIBERTY.

The manager of a Yankee settlement in northern Mexico gives an amusing account of his experience with the caprices of the would-be colonists. They found fault with the color of the water and the dress of the natives, and a farmer from North Carolina announced his intention to leave because the soil proved unsuitable to the production of a kind of tobacco known as Durham Bull Broadleaf. "Won't you try some other crop before leaving this land of genial sunshine?" asked the manager. "What's the use of the sun if you can't raise Bull tabacker?" was the indignant reply. That view of the solar system is rivalled by many current definitions of liberty. About a week ago the Polish and Bohemian miners of Connelsville, Pa., took out a young woman and beat her within an inch of her life for having encouraged the attentions of an unorthodox suitor. The American residents of the place put the matter in the hands of a detective, and the friends of the indicted Slavs convoked another indignation meeting. "What's the use of a free country," exclaimed one of their orators, "if we cannot enforce morality according to our own customs!" "That's what those wretches call freedom," shrieked Herr Most, when the police adjourned one of his instructive lectures on the manufacture of dynamite bombs, and the opponents of the A. P. A. scream themselves hoarse because their Jesuitical machinations have provoked counter-intrigues: "What's the use of freedom if we can't enforce Papal bulls!"

MONGOL MANHUNTERS.

The revival of Napoleon-worship has crowded the art-shops of Paris with battle-pictures, but a moral apologist of the "Satanic Corsican" demonstrates that the diatribes against his unprecedented thirst of conquest were not warranted by statistical facts. The territory ravaged by the hordes of Attila was eleven times larger than the scene of all the Napoleonic wars from Lodi to Waterloo, and Timur the Tartar in the course of his forty years' manhunts fought more battles than all the French marshals of the nineteenth century. In his zigzag gallopade from China to Syria he demolished nearly three thousand cities and diminished the population of the earth about 5,500,000. The aggregate of his conquests was more than 3,000,000 square miles to 240,000 which the victories of Bonaparte subjected to the direct or indirect sway of France.

MORAL ASSASSINS.

It has often been observed that the failure of an attentate upon the life of a ruler tends to strengthen his power, and a similar result often follows the attempt to injure the cause of a political or religious party by falsehood and slander. Signor Crispi probably owes his present prestige to the reaction against the cowardly calumnies of his opponents, and it may be questioned if all the oratorical efforts of Charles Bradlaugh have done as much to promote the cause of free thought in Old England as a little pamphlet published a year ago by the Rev. Hugh Price Hughes, and pretending to record the deathbed conversion of an "Atheistical Shoemaker." The sensational episodes, the quotations, the entire biographical framework of the story were exposed as fictions of the St. Jerome and St. Gregory type. A tract-form publication of the pious fraud had been spread far and wide as a campaign argument, and could not be retracted in time, and boomeranged back with disastrous effectiveness. The title of Mr. Foote's counter pamphlet, "A Lie in Two Chapters," became a cuckoo-call all over Great Britain and was soon taken up by the mocking-birds of the satirical press, till the clerical journals in stress of better means of retaliation, had to resort to the risky expedient of personal abuse. "The record of the author is a sufficient refutation," said the *Mona Herald*; "he is a convicted blasphemer and we defy him to deny it." "I never proposed to deny it," replied Mr. Foote; "it is as true as a bigot judge and a packed jury could make it."

PRECURSORS OF SCHOPENHAUER.

The grim champion of modern pessimism spent years in collecting the literary analogies of his tenets, but died too soon to enjoy the discovery of a precursor in far-off Syria. Six years ago Professor Ackermann of the Vienna Philological Society called attention to fragments of a Turkish manuscript, the original version of it has since been added to the Arabian library of the British Museum. The work in question was first published A. D. 998, under the title Sikta-es-Zend, the "Tinder-Spark" and would

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certainly have kindled an auto-da-fe blaze of the first magnitude if the Eastern Chalifs had been as intolerant as their trinitarian contemporaries. The author, Abu-il-Ala, was not only a sceptic but a pessimist of the most radical type and explains the universal belief in the existence of a better hereafter by the wretched condition of the present world—"just as paupers console themselves with day-dreams of golden times to come." "What belongs to the body," he writes, "returns to dust; but no one can tell us where souls go," True-believers bewailed the popularity of his poems, but never persecuted him in the inquisitorial sense of the word. "You need not dread their wrath," said his fellow-poet, Al Manazi, "what can they do to one who has already renounced both earth and heaven?" Like Schopenhauer, he remained unmarried, and prepared for his last resting-place a rock-tomb with the characteristic inscription: "To my father I owed the sorrows of an existence which no one owes to me."

THE KORAN FETICH.

Abu-il-Ala also denied the inspiration of the prophet, and ridiculed the argument founded on the alleged preternatural literary merits of the Koran. "I can write better myself," said he, "and admire the perseverance rather than the good taste of the men who have read that book to the end. The endeavor to imitate their example has made me very weary." In a stronghold of Islam an admission of that sort must have required the courage of Sidney Smith's "literary desperado who in the presence of witnesses confessed that he preferred Byron to Shakespeare."

OUR DAILY RICE.

Bread, as a daily article of food, is used by only about one third of the fifteen hundred millions that constitute the present population of the earth. In the coast-districts of Spanish America the staff of life is the banana, on the Pampas dried beef, and in Eastern Asia rice, either in the form of a soup or a thick gruel. "He has eaten his last rice," say the Chinese in anticipation of a funeral.

TESTS OF CIVILISATION.

The sales of soap and printing-paper are usually considered the chief criteria of culture, but a still higher type of civilisation appears to be indicated by the demand for railway passes. Previous to the recent invasion of North American tourists, ninety-five per cent. of travellers on the Mexican railroads were primitive enough to pay their own fares. FELIX L. OSWALD.

SONNET.

BY MARY MORGAN (GOWAN LEA).

O let me to the sound of music die!
To one grand strain may life's sweet spark go out!
Not as with trembling fear, nor e'en with doubt,
But as a soldier walks triumphantly

From one achievement to another; still
Fresh courage gathering as he onward moves;
Naught seeing but the ideal which he loves;
Believing Time shall somewhere all fulfil.

But oh, most solemn hour, come not to-day!
For love's alluring voice is whispering low,
Commanding reverently, "Thou must not go!"

Whilst friendship nigh divine binds me so fast
(Clasping a future hope to a loved past),
O Death, whatever you may be, delay.

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NO VOTERS WITHOUT REPRESENTATIVES.

BY F. M. HOLLAND.

Our present Congress does not represent the people. This is not merely because there were five million and a half of voters, of various parties in 1892, who could not elect a single candidate. The worst of it is that the party which conquered at the election has been defeated in Congress. It got even more than its share of the seats; but it could not fill them with men who would be true to its principles. Needless to state how far Congress has failed to carry out the people's command, that raw materials be set free, protective duties generally reduced, and the tariff reformed thoroughly. The heaviest blame belongs to the Senate, as was the case a year ago, when our citizens, of both the great parties, had to wait, for month after month of general distress, before they could get back to honest money. We should not have such Senators if the members of our State Legislatures really represented their constituents. Is this government by the people?

Part of the trouble is the smallness of the districts. This has kept the South solid against the Republican party, and some of the northern States almost solid against the Democrats. It often causes the defeat of an able candidate, who could easily have been elected in other parts of the State. McKinley himself did not carry his own district in 1890; but he carried Ohio last fall. Massachusetts failed, in November, 1892, to give a seat in Congress to either Williams, Everett, or Andrew, though Everett got one subsequently. Each of the three had more than fourteen thousand votes; but a less popular representative of the same party in that State was elected by less than ten thousand. Third parties and independent candidates have little chance under this system. The contest is often decided in the caucus; and if it is not, the voter may be obliged to choose between two candidates, both of whom are objectionable in character, and are openly opposed in one way or another to his principles. A large part, presumably the majority, of our citizens want low tariffs and honest government; but they may not be able this fall even to vote, in the largest of our States, for a single congressional candidate who represents both reforms. Why force them to choose between high tariff and Tammany's tools?

To make the districts as large as the States would be even worse, if all the delegates were to be chosen by the majority. That would enable New York to rule Congress as uniformly as she now rules the electoral college, which makes our presidents, and which voted down the choice of the majority at the polls in 1876 and 1888. There is too much temptation to bribery in that State already. We need to enlarge the districts, and at the same time to increase the probability that each party will get its full share of the delegations, while the worst candidates nominated can be defeated by the purer section of their own party, without weakening that party's numerical strength.

A reasonably fair method of dividing the seats in the Illinois House of Representatives between the two great parties has been in use since 1870. Each district sends three delegates; and each citizen, duly qualified, has three votes which he can concentrate on one candidate or else distribute among two or three, as he likes. Before the adoption of this plan, which is called the cumulative, one part of the State could elect only Republicans, and another only Democrats. Now both parties get very nearly their just share; and twenty-seven Independents were chosen at one election. A committee of senators of the United States reported, in 1869, that if such a plan was used for electing members of Congress, they could devote more of their time to public business; for they would not have to keep busy doing jobs for individuals in order to secure renomination. It was also stated, that if the Union-men of the South had thus been able to get adequate representation before the war, it would not have taken place. Party managers have too much power, however, in so small a district; and making it larger, as is proposed in the New York Constitutional Convention, might lead to great loss of votes. Thus in 1870, when seven members of the School Board were to be chosen in one district in London, a lady who needed only 8,000 votes for election got 47,858; and nearly 40,000 were thus thrown away.

Such losses might easily be prevented by what are called preferential methods. The best known was adopted by Denmark in 1855, and has since been advocated by Mill, Lubbock, Hare, and other noted Englishmen, as well as in this country by Miss Spence.

The voter can name on his ballot one or more candidates to whom his vote will be transferred in case the man of his first choice gets too many or too few votes to be elected by his aid. This seems perfectly fair; but there must be many cases like this. Suppose it needs 30 votes to elect a man, and Brown has 60, of which 44 have Jones as second choice, and 16 have Robinson. The question, whether Jones or Robinson is elected, will depend entirely on the order in which the ballots happen to be counted. Jones's chance is better than Robinson's, but you are no more able to tell what the exact result will be, than you are to tell what sort of a hand will be dealt you at your next game of whist. Moreover, if one of Robinson's partisans should do the shuffling, it is only necessary to get his ballots down to the bottom of the pile. Then he will be elected, because all his 16 votes are counted; but Jones will be defeated, because 30 out of his 44 are used for Brown. Of course, this would not often happen, but why make it possible, when there are better ways of saving votes from being lost? One bad thing always would happen, and that is that too much time would have to be consumed in counting the votes. This practical and necessary defect of the method proved intolerable, when it was used for election of overseers of Harvard University by the graduates. This inconvenience could, however, be avoided, if Massachusetts were to adopt the ingenious method proposed by Mr. William H. Gove of Salem, who has already had it brought before the Legislature of that State. It is one of the two systems which found much favor at the meeting of the American Proportional Representation League[1] last summer, and a bill has been prepared for its use in electing Representatives in Congress. The main feature is that each candidate shall publish, some weeks before the election, the names of those other candidates to whom his surplus votes are to be transferred. No man can vote for more than one candidate; and every ballot is to be counted according to the arrangement already published. The objection is, that many of the candidates would set to work, as soon as they were nominated, making secret bargains at the expense of the public good for such votes as are likely to be transferred. This danger might be avoided by requiring the conventions to adopt plans for transfer of the votes for every candidate.

Finally, there are a number of variations of what is called the free-list system. This permits any party or other number of citizens, sufficiently large to deserve serious consideration, to hand in a list of as many candidates as there are seats to be filled, for instance, thirteen Congressmen in Massachusetts or Indiana, thirty-four in New York, and ten in Tennessee, Virginia, or Wisconsin. Then, if the Republicans in Wisconsin cast sixty per cent. of the votes, that would elect the first six men on their list; and the other four will be allotted according to the way in which the remaining forty per cent. are distributed among the different lists. The ten per cent. is in this case called the quota; and it would be only five per cent. if twenty members were to be elected. All the variations agree in trying to give each list the exact number of Representatives corresponding to its number of votes. Comparison of that number with the whole number of votes for all the lists determines the question, how many of the whole number of candidates to be elected shall be taken from that one list. This system greatly facilitates the choice of independent candidates. Such a one might, for instance, be elected in the State of New York by three per cent. of the voters. It is to be hoped that even that number could seldom be obtained by cranks, but it is safer to give them a seat now and then in Congress than to let them think they can have no redress but dynamite. What is most certain is that the best men on each of the lists of the great parties would be raised to the top, while the notoriously unfit candidate would sink out of sight.

This plan was suggested fifty years ago by a Philadelphian, named Gilpin; and it has recently come into use in Switzerland, where our little district plan worked so badly as actually to bring about a revolution. The Liberals in Ticino found they got less than a third of the deputies, though they cast nearly half the votes. Their petition for reform was disregarded. On September 11, 1890, they took possession of the public buildings, rifle in hand; and the free-list system was soon introduced, not only in that canton, but in Geneva and Neufchatel. Here the form is essentially that which was recommended last summer, in addition to Mr. Gove's, by the League. All the names are to be on one ballot; and each voter is to mark for as many as there are candidates to be elected. He cannot mark more than once for the same candidate, but he can scatter his votes among several lists; and if he does not give them all singly, he can state to which list the balance shall be applied. The candidate thus placed highest on any list will be the first to be taken from it; and the question, how many are to be elected from any one list, will be determined as has just been described. It is hoped that many a citizen will give a few of his numerous votes to the best men nominated by the opposite party or on the independent list; and this possibility will favor the nomination of candidates of high character and broad views.

The only question about this plan, and one which I have not seen discussed, is whether it is necessary to give each individual quite so many votes. The bill which has been presented at Washington offers him as

[1] This league was founded in Chicago in August last. Its office is at 170 Madison street.

many votes for Congressmen as there are delegates to be sent by his State. This means that a New Yorker can vote for thirty-four different candidates. He probably will not, unless he marks indiscriminately for every name on the list presented by his party. Which reader wants to vote thirty times at one election in Pennsylvania, or twenty-two in Illinois, or even thirteen in Massachusetts or Indiana? Who can estimate the excessive amount of time which will be required, first for marking and then for counting the ballots? The friends of this plan must excuse my asking why three votes would not be quite enough. Surplus ones might be transferred from list to list.

The Gove plan seems to me the best, because it is the easiest to carry out. Candidates might be nominated, each for a district, as at present. The only difference would be that a number of districts would be grouped together on the Australian ballot, and each voter would be allowed to mark for any name in the group. Or the Myers machine might be used to count the votes for each candidate as fast as handed in. Any one who knew this result and the order of transfer could easily find out who had been elected. The most popular men would have the best chance ; each party would get its just share of the seats ; and every vote, even for an independent candidate, would help to elect some representative of the voter's principles.

Any of these plans would permit election of postmasters by the people. Seven offices of the same grade might form the district ; and the only special provisions necessary would be these. If two candidates should be elected in the same town, the office ought to go to the man with the larger vote. There would then be an office in some other town without a postmaster ; and it should be filled with the resident candidate who should have the largest vote. Thus each town would choose her postmaster from among her own citizens ; any voter who disliked all the candidates in his own town might vote for a good man elsewhere ; and a notoriously bad nomination would ensure defeat.

Many more methods have been proposed, but most of them are too complicated for use. The great weakness of this reform at present is that it has too many irons in the fire. Until very recently it was a party with almost as many platforms as members. At present, it might be compared by its opponents to the two-headed snake, which could not get through a hedge, because each of the heads tried a different gap, or to the Democratic party in 1860, when it was said to have two platforms, and to be on the way to Waterloo. The trumpet gives an uncertain sound, and who will prepare himself for the battle? There are a great many people who are ready, like me, to do something in this cause, but who want to have the leaders unite on some one practical plan. Some progress was made at the Chicago meeting in giving a preference to two plans ; but this is one too many; and neither of these methods seems as good as it might be made. There is great need of more discussion, and also of many experiments on a large scale. The editor of *Farm, Field and Fireside*, a Chicago weekly paper, set a good example by publishing four lists of Representatives of as many parties, and asking each reader to mark for ten different names. It would be very instructive to be able to compare the number of mistakes and the length of time needed for counting the ballots at such an election with those at one where only three marks could be made, and also a third under the Gove plan. Any of the new plans described in this article would be a great improvement on the primitive way. The present difficulty of the reformer is that he is in the position of a wooer who wants to marry an heiress, and meets her in company with her poor cousin. Both are charming, but he cannot tell which is which.

JOHN PECHVOGEL

"How do you do, Colonel Anderson, old boy, how do you do? We have not met since the battle of Shiloh. You were Captain at the time and advanced very soon to Major, and afterwards to Colonel. How do you do? And you have scarcely grown older. Your eyes are as beaming, and young, and full of fun as ever. Do you remember when we sat together in the evening, before the battle, in your tent drinking a bottle of hock and toasting all the good spirits in the world to love and good luck and future prosperity, and John filled the glasses? Do you remember, old boy? I see that bumpkin still before me. What was his name? What did you call him? Pitchforrel or Pekfogle? I forget. What has become of him?"

Thus a burly old officer, formerly a Brigadier-General in the army, addressed one of his old war comrades at a grand reunion which took place in one of the great cities of the North.

"Hush," said the Colonel, shaking hands with his friend, "don't speak of John contemptuously. Don't mention him. I am deeply in his debt and cannot repay him. As to myself, I am very well! Excellent, indeed. Business is fairly good. I am a lawyer, you know, and am busy day and night. Sit down, General, I am glad to see you again."

"Well, well," said the General, "I'll take this chair. But what is the matter with John? Tell me, Charles, what's the matter with that stupid clown of a Pekfogle? Whence this sober face? Why, that night —I shall never forget it—you swore at him, and you swore like an old soldier in the face of the rebel bullets, so that even such an old sinner as myself was painfully conscious of the danger to which you exposed

us by calling down upon our innocent heads the wrath of the good Lord!"

"Hush, General," repeated Colonel Anderson, "I am serious. I regret every oath I swore at John from the bottom of my heart. You do not know either the fellow or his sterling character, but I know him, and if you will sit down and listen patiently, I shall tell you his story—so far as I know it. But please do not call him a clown, or bumpkin, or fool again, for my sake, I pray you."

The General sat down and offered his friend a cigar. And while the blue clouds rose in the air the Colonel began his story of John Pechvogel.

"John joined us," he said, "on the very first day that Colonel Smith organised the regiment, and he became my servant. He was tall and strong, but awkward. He was faithful and enduring, but clumsy. He was kind and thoughtful, as dear and tender in his sentiments as a girl. Excuse me"—here the Colonel wiped a tear from his eye and stopped a moment—"yet he was ridiculously comical. He could do nothing right. He was—I do not like to say it—he was stupid. No, that was not it: he was too good-natured. He never suspected that there were rogues in the world. He was innocence in masculine incarnation. And this is the story of his life.

"John was born in some German village, I do not know which, nor where it is situated, it may have been in the South or in the North, but never mind. I am too ignorant in geography, except in the geography of the United States. He was a German, and his parents settled somewhere in the State of Wisconsin. His real name was Johann Caspar Vogel, but because he always met with misfortunes, the farmers' boys used to call him Pechvogel—which means 'an unlucky wight.' When his classmates in school played the schoolmaster a trick of which he was perfectly innocent, Pechvogel would join them out of pure sociability, and while they in a moment of danger skilfully escaped, he was sure to be caught. He swore that he knew nothing about the broken window, or whatever else the joke was, and, of course, received a double thrashing; one for the deed which he had not done, and the other for lying of which he was not guilty. He was always the scapegoat and in time came to be considered by the teacher as a mischievous boy. The temper of others would have soured through so many bitter experiences, but Pechvogel remained good-natured. Educated by a pious mother of the Moravian Brotherhood, he felt confident 'that all things work together for good to them that love God.' John was a jack-of-all-trades, for he had tried his hand at everything. But no master kept him long, for he was sure to make some blunder which would arouse the temper of his employer and cause his speedy dismissal. At the carpenter's he wasted the precious mahogany; at the blacksmith's he lamed the horses he shod; at the tailor's he burned a hole in a silk gown which he was ironing. The poor fellow was doomed to ill-luck; he thought the world was wrong, while the world suspected that he was wrong—in his head.

"I made his acquaintance at one of the smaller hotels in New York, where he was engaged as a hostler. He lost his job and found employment at a fashionable Episcopal Church, where he had to blow the bellows for the organist and to perform all kinds of menial services.

"At that time the war broke out and I joined Colonel Smith. One morning when I was just about to leave for the recruiting office, there was a knock at the door, and John stepped in. 'I have lost my job at the church,' he said, 'and want to enlist in your regiment.' 'What is the matter, John,' said I, 'did you not like your work or did you not perform your duties satisfactorily?'

"'I liked my work very well,' said he frankly, 'but I met with an accident last Sunday, and the organist suspected me of having done it intentionally and discharged me at once. I love music, you know; and when blowing the bellows I do it with conscientiousness, for I know that without the wind in the pipes the organist could not play. So after church when the organist had played a glorious Hallelujah, I said to him: "Didn't we play well to-night?" "Shut up, you fool," says he, "I play the organ and you blow the bellows." It was not fair of him to call me names, for we must all work together and the organist cannot do without the bellows-blower. He should not despise me because my station in life is lower. In the eyes of a higher One we are all equal.'

"But that was no cause for discharge," I interrupted John.

"No," replied he, "the cause for discharge happened the day before yesterday, on last Sunday. While I was blowing the bellows I thought of the organist's haughtiness, and was sorry for him; for haughtiness is a blemish in a man's character and will be punished. And sure enough the punishment came. For while I was thinking I observed that the bellows went quickly down when I trod upon them, and that they rose slowly, quite slowly, when I let go. Rising in life and growing takes time, but humiliation or downfall is the work of a moment. And what is the conceit of the world but wind. All our bragging is as hollow and empty as the bellows of the organ, and the music that is produced is not for the organist's glory, but serves higher ends. While I was thus thinking, the beams of the bellows upon which I trod began to bear the features of the organist, and I saw quite plainly his ugly sneer of contempt, and I thought, 'he has offended

me and now it is my lot to bring him down again and again'; and then again I thought 'I won't do it. I will love my enemies and bear no grudge against any one.' In that sentiment I felt so happy that I forgot the organ and fell a dreaming, when all of a sudden the organ stopped with a whistling sound as if gasping for breath. I resumed my work at once, but the organist, instead of continuing to play, came out in a fury and made matters worse than they were. Oblivious of his station and the holiness of the building in which we were, he began to scold and to swear, and gave great offence to the people who heard him, saying that I had done it on purpose. He would not allow me to touch the bellows again, but asked a young man of the choir to blow the bellows, and discharged me on the spot. Now the truth is, I had not done it purposely, but had forgiven him. It was quite a scene. Everybody blamed me, but the organist was blamed too, and Bob, the sexton, told me this morning that the pastor and the members of the board thought of discharging the organist, too."

"Now you are out of work again," said I, and John replied: 'Never mind, I'll join the regiment and fight the rebels.' Pechvogel joined the regiment and became my servant. He was always good-natured but constantly met with accidents; it is quite impossible to exhaust all the stories of this ill-fated boy. I shall tell only one or two.

"While we stayed at Fort Monroe we organised among ourselves a theatrical company to pass away the time, and the people seemed to enjoy it, for we always played before crowded houses. John was our messenger boy and had to assist in putting up the stage, and to attend to other work.

"One night we played Pizarro, against my protest, for I knew the play was too much for an amateur company; but Captain Miller, our stage manager, was ambitious to shine as Rolla, the Peruvian, a part which he admitted he could play as well as Edwin Forrest, and so to gratify him Pizarro was put upon the stage, regardless of expense. Millar was not a good actor, but he was better than the rest of us, and liked to pose before the public; so he assigned the best parts to himself, and was always anxious that everything should co-operate to increase his own glory, and he cared nothing for the rest of us. If he could make a 'point' as he called it, and get a 'round' of applause, that was enough for him.

"I was cast for the part of Las Casas, the good priest, and after the death of Rolla it was my duty to lead the funeral procession, chanting a solemn dirge, the Peruvian mourners joining in the chorus. The dead Rolla was arrayed in state upon a properly decorated bier, and the procession started round the stage. The march and the dirge were so timed that they ended together just as the procession reached the front of the stage, where the bearers deposited the bier while the mourners formed a 'picture' facing the audience, the coffin just in front between the mourners and the footlights; and this was the critical moment when the curtain was to fall slowly and sadly as became the solemn scene. And now I want to show how the expense of getting up the play and the labor of weeks were lost by the over-carefulness of John's stupidity.

"Captain Millar was fearful that his funeral would not end in a blaze of glory unless the curtain was lowered in a mournful manner at the precise moment of time; and to prevent all possibility of a mistake he hired John with special instructions to perform the special duty of lowering the curtain, and he was to attend to that and nothing else. Every night at rehearsal Millar gave John a drill in the tactics of lowering the curtain, until the faithful soldier was 'letter perfect' in the part. Millar overdid it, for he made poor John believe that lowering the curtain was the most important part of the play, and the result was a state of nervous anxiety in John that wrecked our enterprise.

"All through the scene, John stood manfully at his post with the curtain-rope in his hand, but unfortunately he had taken a drink of whiskey about every five minutes during the evening to steady his nerves and keep his intellect clear so that he might not 'lose the cue,' and that precaution muddled him. Millar was careful to impress it upon John that he must not lower the curtain 'too soon,' and the fear of doing so rumbled the brain of John.

"Well, Rolla was dead, and I led the funeral procession on the stage. We marched around singing the dirge, and we placed our precious burthen in its proper place, and stood facing the audience, expecting the curtain to fall, but no curtain came down. For two or three minutes we stood there waiting for the curtain, but we looked so silly gazing at the audience and saying nothing that some irreverent persons on the back seats began to titter, and I saw that the corpse was getting red in the face with rage. Fearing that an explosion of laughter would soon take place I gave the bearers a wink to pick up the bier, and striking up the dirge we started round again. As we passed John standing in the flies, I shook my head at him to remind him of his duty, but I think this muddled him all the more, for when our journey was done, the curtain remained as obstinate as before. After standing for a while foolishly gazing at the people, the tittering began again, but louder and bolder than before, and I saw that the corpse was boiling mad. So I gave the bearers the wink again, and again we started round, but the more mournfully we sang the louder the audience laughed, and when we formed the 'picture' this

time, the house was in a roar. Then the corpse lifted up his head and shouted in a stage-whisper, 'John drop the curtain'; and instantly the curtain fell, not slowly but with a sudden flop, and what was worst of all we had meandered around with the body so much, that we laid it at last too near the footlights, and when the curtain fell, Rolla was left outside, and this misfortune set the house wild with delight, and they actually fell over on their seats when the dead man jumped out of his coffin, and with a yell of rage broke through the curtain and rushed upon the stage. There he attempted to murder John, and when some of us interfered, thinking that death was too large a penalty for the offence, he turned upon us, and insisted that we were all in a conspiracy; that we were jealous of him, and had hired John to bring about the catastrophe that had brought him a round of ridicule instead of a round of applause.

"The next night we tried it again, but whenever any of us appeared upon the stage and said anything, the audience gave us so much ironical applause, and laughed so heartily at the tragic parts, that we gave up the attempt in despair; and we played Pizarro no more.

"John met constantly with similar misfortunes. I remember that on another occasion this same theatrical company of ours had arranged a concert. A famous piano virtuoso happened to be in town and he was engaged as the star of the evening. The artist ordered John to procure a Steinway piano, and made the mistake of giving him more explanation than necessary. He said: 'It is the piano on which I always play, I am used to it and cannot play on any other.' John went to the hotel instead of to a piano dealer and asked for the piano on which the artist used to practise. This happened to be a mute piano, and as he had received it of the manufacturers free of charge as an advertisement for the makers, it bore in big letters the inscription: 'The Mute Piano, a Boon to Mankind.' The mute piano was placed on the stage, and as everybody minded his own business, it passed unnoticed. The artist who was always in the habit of arriving at the last moment, or a little later, had no anticipation of the fate that awaited him. The curtain rose and the public began to whisper. When the artist appeared on the stage, finding himself confronted with the mute piano, the legend of which was squarely displayed before the audience, the whisper grew into loud laughter; shouts of bravo were heard and our artist was flushed with anger. He tried to address the audience and complain of the insult which he had suffered in the intrigue of some scoundrel but it was impossible to restore order. It broke up the whole concert. The artist left the stage full of indignation, threatening to sue the company, or the committee at whose invitation he had accepted an engagement to play, and the public clamored for the return of their money. Poor John was the innocent cause of all the confusion, and his blunder sealed the fate of our company. We had to give up and never dared again to announce a performance of any kind.

"On the night before the battle of Shiloh, you will remember, John broke a bottle of wine and spilled its contents, and I upbraided him for it rather severely; but on the day of the battle I had every reason to be satisfied with him. I intended to reconnoitre a part of the field and advanced as far as I could towards the enemy, taking shelter behind a row of shrubs. I saw John following me. I understood his motive. He anticipated danger and in his good-naturedness he wanted to be near me in case of emergency. While I gave him a sign to retire as his mere presence seemed to indicate ill luck, three rebels on horseback, who appeared from some ambuscade as if rising out of the ground, dashed upon me brandishing their sabres. My horse stumbled, and a blow from one of the fellows struck off my hat. I gave myself up as lost, when John came to the rescue and with his unusual strength laid my adversary low before he could repeat the blow which would have been fatal to me. He courageously turned on the other two, shot one of them, while the third one made his escape. 'Well, Captain,' he said with beaming eyes, as he helped me off my fallen horse, 'am I indeed good for nothing in the world? I happen to have more ill luck than other folks, that is all; but to-day I am in luck and you are in luck, too, that I was near.'

"I stretched out my hand to grasp his, but before I could make a reply a bullet whizzed through the air and struck him right in the back of the head. He fell into my arms and I laid him gently upon the ground. The bullet would have unfailingly killed me had not the luckless chap happened to stand between the rifleman and myself. He could hear me no longer, yet I replied to his question and said: 'Yes, John, I owe you my life, and I shall not forget it as long as I live.'

"This is the story of John Pechvogel, and I cannot think of him without emotion. There are a great number of persons in the world like him. They are fated to ill-luck in whatever they undertake, and as a rule find fault with the world instead of themselves. But I have, since John died in my arms on the battlefield of Shiloh, become very patient with men of his type, provided they show good-will in their awkwardness. If you call them names and scold them, you only irritate them uselessly and render their case worse. Treat them in the right way with firmness but in kindliness, and they will be less liable to make blunders. I have adopted the maxim of considering myself co-responsible for the stupidities of my underlings, and have, I am sure, in this way anticipated many evil results that otherwise would have occurred." P.C.

BUDDHISM IN JAPAN.

II. NORTHERN AND SOUTHERN BUDDHISM.

BY NOBUTA KISHIMOTO, M.A.

It is customary among the modern scholars to divide Buddhism into two great schools, Northern and Southern. By Southern Buddhism is meant the Buddhism found in Ceylon, Burmah, Siam, and Anam, while Northern Buddhism is that which has its home in Nepal, Thibet, China, and Japan. It is also customary among Western Buddhistic scholars to regard Southern Buddhism as a purer and more original representation of the system founded by Buddha, than Northern Buddhism, which, they say, is not free from later foreign elements. But, according to the Japanese Buddhists, Buddha is regarded as having taught the doctrines of both the Southern and Northern schools. I myself cannot find any historical grounds for this assertion of our Buddhist scholars. If there are any grounds at all, I can mention only two.

The first ground for the assertion on the part of the Japanese Buddhists that Buddha taught both of these doctrines is that Buddha was the "Great Physician," who came to cure all the sins and miseries of the world, and therefore gave the remedy according to the nature of the disease. He accommodated his teaching to different circumstances. He taught his doctrine in different forms to suit the needs of every case. He was the Great Physician, wise and experienced. Expedience, together with knowledge and compassion, were the three great virtues of Buddha. This, according to the Japanese Buddhists, explains the co-existence of these two apparently contradictory aspects of the teaching of Buddha. "*Expedience*," to which Buddha resorted, then, is the first assumed ground that he really taught the apparently inconsistent doctrines of these different branches of Buddhism.

The second ground is that the teaching of the Hinayâna (Southern) school is too narrow and too superficial for such an enlightened person as Buddha to teach. The fundamental teaching of the Southern school consists in the final attainment of the annihilation of both the body and the soul, and this teaching of annihilation, as important as it is in this school, is the very thing which the Japanese Buddhist scholars regard as too narrow and too superficial for Buddha to teach. They recognise three things as the distinguishing marks of the teaching of the Southern school, viz., (1) the "impermanence of all things," (2) the "non-reality of the ego," and (3) the "ultimate annihilation of the body and the soul." But at the same time they ask: If the reality of all things is the result of ignorance and delusion, and if the putting an end to every form of existence is the ultimate purpose of Buddha's teaching, how did this ignorance arise, where did this delusion come from, how did all phenomenal existences of the present world come to be, why did change and transmigration begin at all, how did the thought and need of annihilation arise? Every change needs some reason for it. Everything that changes or even seems to change needs some adequate cause. Can it be consistently affirmed that Buddha, who was the teacher of gods and men, and whose knowledge extended infinitely into the past and the future, did not think of these difficulties, or did not teach anything about their solutions? Hence our Buddhist scholars conclude that Buddha cannot have stopped at nihilism and must have taught in addition to the Southern doctrine of self-discipline and the annihilation of self, the Northern doctrine of faith and salvation. Hence the "real existence of the Perfect," the eternal and immanent principle, in and beyond all the phenomenal existences, is regarded as the distinguishing mark of the teaching of the Northern school. Such, then, is the second ground on the part of the Japanese Buddhists for assuming that the Northern doctrine is just as much the original teaching of Buddha as the Southern doctrine.

But in spite of all this, the Japanese Buddhist scholars all admit that during the first six hundred years after the death of Buddha the teaching of the Southern school alone flourished. They also admit that about one hundred years after Buddha, on the occasion of the Vaisâli heresy, the believers were divided into two bodies, the "elders" and the "great congregation." Afterwards, the former school became subdivided into eleven sects, and the latter into nine sects, so that towards the close of the fourth century after Buddha there were twenty different schools among the believers of Buddhism. These schools all belonged to the Southern or Hinayâna Buddhism, being known as the "twenty schools of the Hinayâna." Some six hundred years after Buddha, that is, about the middle of the first century of the Christian era, Ashvagosha rose as a teacher in Middle India. He is the author of that famous work called the "Treatise on the Revival of the Faith," in which he presented the teaching of the Southern school. Hence he is regarded by the Japanese Buddhists as at once the restorer and promulgator of the Southern or Mahâyâna system. After Ashvagosha, this school began to gain in power and influence, as has been shown by the appearance of many able Buddhist scholars who followed him in his explanation of the doctrine. About a century after Ashvagosha, that is, seven hundred years after Buddha, Nâgârjuna, the author of the famous "Treatise on the Middle," appeared. Again a century later, Vasubandhu wrote many important books. These two last-mentioned scholars are very important. "The doctrine of the Mahâyâna," says a Japanese Buddhist

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writer, "grew and flourished, owing to the influence of the two teachers, Nâgârjuna and Vasubandhu."

In the reign of the Emperor Ming, who reigned during the middle of the first century of the Christian era, Buddhism was introduced into China. The Emperor, we are told, being informed in a dream of a divine person born in the West, called Buddha, sent an embassy in quest of this personage. The embassy penetrated into India, and after collecting books, pictures, and relics of Buddha, returned home in A. D. 67, accompanied by two priests. A temple named the White-horse-temple was built in the then capital of China, Loyang, to supply a home for these Hindu priests and to keep their sacred things. For the next two hundred years Buddhism made little headway in China; but from the middle of the third century, it spread and became very popular. Gradually many "scholars of the Dripitakas" came to China from India and translated the sacred books of Buddhism into Chinese, while on the other hand many Chinese Buddhist pilgrims went from China to India in search of the sacred writings and relics of Buddha.

The formal introduction of Buddhism into Japan is generally put at the middle of the sixth century of the Christian era, or more definitely, at the year 552 A. D., when the king of Kudara, one of the three ancient divisions of Corea, presented to the Japanese emperor an image of Buddha and some sacred books of Buddhism.

At present there are ten principal sects of Buddhism in Japan. I say *ten*, because I think it is more proper to regard the three sub-sects of the Zen-sect as one than to count them as three distinct sects, as is usually done, thus making the number of all the present Japanese Buddhist sects *twelve* instead of ten. Ten, accordingly, is the number of all the present Buddhist sects of Japan. But if all the Buddhist sects which have ever appeared in Japan were counted together, the number of the sects would be fourteen.

These fourteen Buddhist sects can be divided into three groups, ancient, mediæval, and modern, according to the chronological order of their establishment. This is one way of their classification. The "Ancient" sects are six in number, generally known as the "six sects of Nanto," because they were first established in Japan when Nanto or Nara was its capital. Of these six "Ancient" sects, only two exist now, thus reducing the total number of the present sects to ten. The "Mediæval" sects are only two in number, the Tendai and the Shingon. These "Mediæval" sects are also called the "two sects of Kyoto," because they were introduced when Kyoto was the capital of Japan. The "Modern" sects are six in number, the Jodo, the Zen, the Shin, and the Nichiren being the most important ones.

Another way of classifying these Buddhist sects of Japan is to divide them into two groups, according to the place of their origination, whether they were introduced from abroad or were of native origin. Out of the ten existing sects, six were introduced from China, while the remaining four, all of which belong to the "Modern" sects, originated on Japanese soil. Still another way of their classification is to divide them into two groups, with reference to the means or ground of salvation. All the "Modern" sects with the single exception of the Zen-sect, teach that men are saved not by their own power but by a power other than and superior to their own, while the remaining five sects emphasise one's own effort after righteousness and enlightenment as one of the necessary means or grounds of attaining salvation. The latter are known as the "self-power" sects, while the former are known as the "other-power" sects."

NOTES.

It will be of interest to the readers of *The Open Court* to know that the author of "John Pechvogel" is indebted for the comical episode of "Pizarro" to his late friend Gen. M. M. Trumbull. This episode is a real occurrence of the General's life, and he used to tell the story with all the dramatic vigor of reality, eliciting roars of laughter from his hearers.

It will be welcome intelligence to the friends and readers of the late Prof. George J. Romanes that the second part of his "Darwin and After Darwin," treating of post-Darwinian questions, is to be edited by his friend, the famous naturalist, Prof. C. Lloyd Morgan of the University College, Bristol, England, whom Professor Romanes appointed his literary executor. Professor Morgan will take up the second volume of "Darwin and After Darwin" in September. It may be expected that this will be the most valuable part of the work.

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THE PAINE CLUB IN PARIS.

BY MONCURE D. CONWAY.

Thomas Carlyle has remarked the tremendous ado made over the lives sacrificed in the French Revolution, whereas the number was so small compared with that of those slain in most wars of the time. Little is said of the comparatively vast numbers fallen in the struggles of the leagued monarchs to crush the Republic. Nevertheless, the historical imagination is right in regarding the scenes of the French Revolution with especial horror. For one thing, because that Revolution devoured its own children; for another thing, because they were such noble children,—men and women whose murder threw back the cause of liberty into a darkness and disgrace, which previously had been monopolised by royal despotism. The people have never emerged from that shadow. It was not the massacre of uniformed and hireling soldiers, but of great and devoted leaders of the people. Whenever the historian fixes his scrutiny on one or another of those victims, he is pretty certain, in a majority of cases, to discover some great heart, some sublime and self-devoted enthusiasm, struck as by lightning in that black storm. The circle which in Paris gathered around Paine, as the exponent of republican principles, were animated by a passion for liberty so ardent that no sacrifice was withheld, but all was given with joy. Men like Duchâtelet, Lafayette, Condorcet, Anacharsis Clootz, and others threw away their titles and wealth as trifles. There were Englishmen eager to do the like. White's Hotel, where Paine resided, was a glowing centre of English enthusiasm. On November 18, 1797, a banquet was held there at which Sir Robert Smith and Lord Edward Fitzgerald—intimate friends of Paine—formally renounced their titles. Sir Robert proposed the toast: "A speedy abolition of all hereditary titles and feudal distinctions." Another toast was: "Paine,—and the new way of making good books known by a royal proclamation and a King's Bench prosecution." Sir Robert was long a prisoner, and died of an illness contracted in prison. Lord Edward Fitzgerald was slain while struggling in Ireland for a revolutionary cause kindled from that in France.

I have not been entirely successful in identifying the hotel in the Passage des Pétits Pères. At the close of 1793 its name had been changed to "Philadelphia House," probably because Paine's residence there had drawn so many Americans. The house which I believe to have been the one, now comprises business offices, one room being occupied by a liberal club,—possibly the same as that in which the Paine Club gathered. The character of this club, formed in the latter part of 1792, may be gathered from debates of the time in another club, namely, the English House of Commons. For at that time the only reign of terror was in England. The Ministry had replied to Paine's "Rights of Man" by a royal proclamation against seditious literature. In consequence of this the Tory gentry became mobocrats; they collected and paid roughs throughout the country to burn Paine in effigy, and to harry the religious Nonconformists. A handbill was everywhere distributed and posted, entitled: "One pennyworth of truth from Thomas Bull to his brother John." In it were such sentences as the following: "Have you not read the Bible? Do you not know that it is there written that kings are the Lord's anointed? But whoever heard of an anointed republic?—Our national debt, for which we are now paying such heavy taxes, was doubled by the troubles in America, all brought upon us from the beginning by the Dissenters here and there. Did not Dr. Price write for them? And did not the Birmingham Doctor (late one of the 'kings' elect of France) encourage them and write mob principles of government to justify them?"

The Birmingham Doctor (Priestley) had his house gutted by the mob. Mr. Fox (December 14, 1792) reminded the House of Commons that these mobs had "church and king" for their watchword, never the "Rights of Man." Paine's work, he declared, had never produced one riot, but this invective against Dissenters, unless stopped, would endanger the personal safety of "that great man, Dr. Priestley, and every other Dissenter." Among the other Dissenters menaced was William Vidler, the second minister of our South Place Society,—a society originally founded in 1793. Fox appealed to the government to prosecute such libels against Dissenters as they were prosecuting Paine's "Rights of Man." But so far from doing this, the ministry utilised the mobs fomented by its

own adherents to justify surrounding London with militia, and calling a meeting of Parliament out of season, just before the trial of Paine. Erskine, Paine's lawyer, amid the furious denunciations of Paine, said that "such reflexions are not fair against a work now under prosecution. The trial is at hand, and the cause ought not to be prejudged." Burke, who now for the first time took his seat on the Treasury Bench, found it necessary to protest that he had not come over to that side by promise of a pension (Paine had charged him with already being a secret pensioner). He (Burke) was reminded of how he had once "exulted at the victories of that rebel Washington," and welcomed Franklin. "Franklin," he said, "was a native of America; Paine was born in England, and lived under the protection of our laws; but, instigated by his evil genius, he conspired against the very country which gave him birth, by attempting to introduce the new and pernicious doctrines of republicanism." Burke alluded to the English and Irish deputations then in Paris, which had congratulated the Convention on the defeat of the invaders of the Republic, and mentioned among those on the deputations J. Frost, Lord Semphill, D. Adams, and "Joel—Joel, the Prophet,"—i. e. Joel Barlow, who, by the way, formally became a French citizen February 17, 1793.

We may, therefore, assume that the men thus named were members of the Paine Club at Philadelphia House. Another certainly was Lord Edward Fitzgerald, who wrote to his mother (October 30, 1792): "I lodge with my friend Paine—we breakfast, dine, and sup together. The more I see of his interior the more I like and respect him. I cannot express how kind he is to me; there is a simplicity of manner, a goodness of heart, and a strength of mind in him that I never knew a man before possess." Another was Sir Robert Smith, Baronet, who, under Napoleon I., suffered a year's imprisonment, of which he died. There was also Franklin's friend, Benjamin Vaughan, a Member of Parliament, who, compromised by an intercepted letter, fled to France, and resided near Paris under the name of Jean Martin. Other Englishmen were Jeremiah Joyce, a Unitarian minister and author (coadjutor of Dr. Gregory in his "Cyclopædia"); J. Frost, who assisted Paine in his escape from England; Redhead Yorke, who, after imprisonment under Pitt, afterwards became one of his agents, yet loyal to Paine; Robert Merry, who in later years went with his wife, the actress (her stage name "Miss Brunton"), to Baltimore, where he died in 1798. Other Englishmen in the club were Sayer, Rayment, and Macdonald. These men were refugees from a reign of terror in England, which was filling its prisons with its best men. It is historically correct to say that at the close of 1792 that which would now be called a real English government held its Parliament not at Westminster, but at Philadelphia House, Paris, its members being the Paine Club.

Among the homes in which Paine found warm welcome was that of Gen. Achille Duchâtelet, son of the duke, grandson of the authoress. This noble family, in every sense of the word, lived at Auteuil, a beautiful suburb of Paris, an extension of Passy, where, in a house not yet identified, Franklin had resided. There also lived the Abbé Moullet, who preserved the arm chair in which Franklin used to sit, with the inscription, *Benjamin Franklin hic sedebat.* These friends of Franklin took Paine to their heart, and could talk to him in English. For, although Paine could read French with ease, he would never trust himself to converse on matters of political importance in any language but his own. Auteuil is now reached in forty minutes by the omnibus, but in those days it was a rural village. Paine was a guest of the Duchâtelet's soon after he had got to work in the Convention, as I have just discovered by a letter of his not hitherto brought to light. It is addressed "To Citizen Le Brun, Minister of Foreign Affaires, Paris."

"Auteuil, Friday, the 4th December, 1792. I enclose an Irish newspaper which has been sent to me from Belfast. It contains the address of the Society of United Irishmen of Dublin (of which society I am a member) to the volunteers of Ireland. None of the English newspapers that I have seen have ventured to republish this address, and as there is no other copy of it than this which I send you, I request you not to let it go out of your possession. Before I received this newspaper I had drawn up a statement of the affairs of Ireland which I had communicated to my friend, General Duchâtelet at Auteuil, where I now am. I wish to confer with you on that subject, but as I do not speak French, and as the matter requires confidence, General Duchâtelet has desired me to say that if you can make it convenient to name a day to dine with him and me at Auteuil, he will with pleasure do the office of interpreter. I send this letter by my servant, but as it may not be convenient to you to give an answer directly, I have told him not to wait. Thomas Paine."

A French translation of the Irish address is bound up with this letter in the State Archives at Paris. It is violent enough to be reproduced by the Parnellites. Although Paine's letter to the minister is Quakerlike in its lack of complimentary phrases, this was a gesture of the time towards "Equality." A portrait of Paine as a "Conventionnel" shows him in elegant costume, and it will be noticed by the above note that he now has a servant.

Alas, it is mournful even at this distance to reflect that only a little later both Paine and his friend, Gen-

eral Duchâtelet, were prisoners. The latter poisoned himself in prison (1794).

Sampson Perry of London, having attacked the government in his paper, *The Argus*, fled from an indictment and reached Paris in January, 1793. In 1796 he gave an account of his visit to Paine, which has never, I believe, been printed in America.

"I breakfasted with Paine about this time at the Philadelphia Hotel, and asked him which province in America he conceived the best calculated for a fugitive to settle in, and, as it were, to begin the world with no other means or pretensions than common sense and common honesty. Whether he saw the occasion and felt the tendency of this question I know not; but he turned it aside by the political news of the day, and added that he was going to dine with Petion, the mayor, and that he knew I should be welcome and be entertained. We went to the mayoralty together in a hackney coach, and were seated at a table about which were placed the following persons: Petion, the mayor of Paris, with his female relation, who did the honor of the table; Dumourier, the commander-in-chief of the French forces, and one of his aides-de-camp; Santerre, the commandant of the armed force of Paris, and an aide-de-camp; Condorcet; Brissot; Gaudet; Gensonnet; Danton; Kersaint; Clavière; Vergniaud; and Syèyes; which, with three other persons, whose names I do not now recollect, and including Paine and myself, made in all nineteen."

I have found an interesting account in the *Bien-Informé* for October 17, 1797 (a paper edited by Bonneville and Paine), of another refugee who came to Paine in Paris in 1793. This was Thomas Muir, a Scotch advocate. Towards the close of 1792 the radicals of Edinburgh got up a "Convention" in imitation of that inaugurated in France, (except that it was always opened with prayer,) and Muir was its leader. After the outlawry of Paine (December 18, 1794) the prosecutions were furious in England. Muir escaped to Paris, but imprudently ventured to return. He was tried and banished to Botany Bay for fourteen years. When the sentence was given, the judge ordered the tipstaff to remove those who were hissing. "My lord, they are all hissing," was the reply.

I now translate the account of Muir's subsequent adventures as printed by Bonneville and Paine (1797).

"The misfortunes of Thomas Muir, condemned in Scotland and transported to Botany Bay, are still present to our minds. His virtues and talents furnished a motive for his banishment: he was especially condemned for bringing some patriotic writings into circulation, amongst others the work of Thomas Paine, the 'Rights of Man.' About two years after his arrival at Botany Bay, an American vessel, returning from the East Indies, took him on board and carried him to Havana, where he was imprisoned by the Spaniards, at that time allies of England. Put on board a frigate, he was making for Cadiz, from whence he was to be sent back to his persecutors, when a freak of fortune brought in his way some warships belonging to the Jarvis squadron. A fight ensued; the Spanish frigate, riddled with shot, was obliged to run aground. Muir was wounded in the head by a blow from the muzzle of a musket. The English arriving, claimed him. They were told that he was dead, and had just been thrown into the sea. The enemy, after plundering the ship, abandoned it as a useless hull which it would embarrass their cruise to keep afloat. But, by dint of time and labor, the stranded frigate was again made seaworthy and reached the port of Cadiz. There Muir was left a prisoner in hospital, and long lay between life and death. He has lost an eye. A Frenchman, just from Cadiz, who has visited that worthy friend of liberty, assures us that his health is almost restored. He has addressed his friend Thomas Paine a letter of which the following is an extract:

'Cadiz. August 4, 1797. Since the memorable evening when I said good-bye to you [at Paris] my sad and troubled life has been a medley of extraordinary events. I hope in a few months to tell you of them in person. I am at last, against all hope, cured of my numerous wounds. The Directory has treated me with great kindness of late; its solicitude for a helpless individual who has been most cruelly wronged is healing balm to all my senses. The Spaniards have kept me a prisoner under a pretext that I am a Scotchman; but I feel certain that the intervention of the Directory of the Great Republic will enable me to obtain my liberty. Remember me most kindly to all our friends, who are at the same time the friends of freedom, and of the happiness of the human race.

THOMAS MUIR.'"

We learn that T. Muir was restored to liberty on the 16th of September by the intervention of the Directory.

Muir soon afterwards reached Paris, where he lived among his old friends until his death, in 1800.

In these old records one finds many an original "Man without a country." The Scotch advocate banished from Great Britain is held a prisoner by Spain in Havana because he is an offender against their ally; then, the alliance turning to enmity, Muir is held prisoner at Cadiz because he is British! Thomas Paine was elected to the French Convention as an American; he was outlawed by his native England; he was imprisoned in France for being an Englishman, and when he returned to America his vote was

refused on the pretext that he was not an American citizen! The time may arrive when these hardships of Paine will be quoted to prove his honor as the earliest Citizen of the World."

BUDDHISM IN JAPAN.

BY NOBUTA KISHIMOTO, M. A.

III. SACRED LITERATURE.

The canonical books of Japanese Buddhism are exactly the same as those of Chinese Buddhism. I say "exactly the same" because not only were all these sacred books introduced into Japan in the course of time by Chinese teachers and Japanese pilgrims, but they were also read and used in their original Chinese form and were never translated into the Japanese language. This is also the case with the Confucian classics. As a rule, all educated Japanese scholars, whether Buddhist or Confucian, can read Chinese with ease and facility, so that for them there was no need of translating the sacred books of these two systems; while furthermore they did not like to spoil these sacred and elegantly written books by translating them into a foreign tongue. The reason why the Japanese study Chinese is not because the languages of these two countries are alike, as is sometimes supposed. On the contrary, these languages are fundamentally different from each other, to such an extent that it is no exaggeration to say there is no more resemblance between Japanese and Chinese than there is between English and Chinese. The reason must be sought in the fact that the Japanese civilisation originally came from the Asiatic continent, either directly from China or indirectly through Corea. Philosophy, literature, the sciences, and all the arts of civilisation are to be traced to continental sources. Thus the study of the Chinese language which was the means of transportation of these treasures became both a necessity and a fashion. The ordinary people who could not read Chinese seem to have been satisfied with an oral exposition of the teachings of Buddhism and Confucianism. If this were not so, I cannot see any other explanation why there is no vernacular translation of the Confucian or Buddhistic literature, as the case may be.

Now, what is the relation of these Buddhistic sacred books of China or Japan to those of Ceylon? We know in the first place that in both of these countries the whole Buddhistic literature is divided into three main divisions, known in India as "Tripitaka" and in China as "San-tsong," both meaning the same thing, viz., the "three treasures or baskets"; and that these three divisions of the texts are (1) the Vinaya-pitaka or code of discipline, (2) the Sutta-pitaka or sermons of Buddha, and (3) the Abhidarma-pitaka or philosophy. In the second place, with respect to the contents of these three pitakas or baskets, there are so many points of agreement and resemblance that we are quite justified to conclude with the late Professor Beal that "the Chinese Buddhists derived their knowledge on these points [that is, on discipline and religious life] from the same sources as the Buddhists of the South, and the two schools, so far, are but offshoots of one primitive stock." Generally speaking, the Ceylon canon surpasses all others in point of arrangement, while the Chinese canon surpasses all others in point of copiousness.

Probably it is not out of place to say a few words in this connexion about the relative length of the Pâli canon and the Chinese canon of the Buddhist Scriptures. Dr. Rhys Davids, trying to remove great misconceptions with regard to the supposed enormous extent of the sacred books of Southern Buddhism, has examined the question and gives his conclusion in the following words: "The Buddhist Scriptures [the whole three Pitakas of the Southern School, exclusive of Nos. 10 and 11 of the Khuddaka Nikâya, whose extent is uncertain], therefore,—including all the repetitions, and all those books which consist of extracts from the others—contain *less than twice as many words as are found in our Bible*; and a translation of them into English would be about four times as long." Such is the length of the sacred books of the Southern Buddhists, and no one will say their length is enormous. But when one comes to know the real extent of the sacred books of the Northern Buddhists which form the basis of the Buddhist religion in China and in Japan, he will find that so-called "great misconceptions" are not necessarily misconceptions. "It is calculated," affirms the late Professor Beal, "that the whole work of the Indian translators in China, together with that of Hiouen Thsang amounts to about *seven hundred times the size of the New Testament.*" Surely this is an enormous mass of literature.

I, as a Japanese, feel quite proud in being able to say that the whole collection of the books known as the "Sacred Teaching of the Three Treasures," which now stand on the shelves of the India Office Library in London, which is the only collection of the kind in the West, was furnished not by China but by Japan. Dr. Beal, who was the means of procuring these books, speaks of them in the opening pages of the Catalogue which he prepared for the India Office, as follows: "This collection was made and published by order of the Emperor (of China) Wan-lieh towards the end of the sixteenth century. It was reproduced, in Japan, in the sixth year of the Nengo (year period) Im-po [Em-po?], i. e., A. D. 1679, and afterwards issued with an imperial preface in the period Ten-wa, A. D. 1681–1683. As first received at the India Office, the

collection was contained in seven large boxes, carefully packed in lead, with padding of dry rushes and grass. The entire series of books was arranged in one hundred and three cases or covers; in each case there were, on an average, twenty volumes, so that the entire number of volumes is more than two thousand. Placed one above the other, the books in the collection would reach to a *height of about one hundred and ten feet.*" "This body of literature," continues the same author elsewhere, "represents the entire series of sacred books taken during successive years from India to China and there translated, as well as the works of native Chinese priests, with commentaries, catalogues, and indexes. Here, then, is the groundwork of our knowledge of the Buddhist religion in China and Japan. It is plain that it will require many years before we can arrive at a correct estimate of the character of these books, or their value as authentic translations. But as far as is yet known, they contain valuable materials for a knowledge of Buddhism in all its periods of expansion or development, from the simple creed taught in the first instance by its founder down to the subtle and fine-drawn doctrine of the latest period of scholastic development."

SPOOK MICE.

BY HUDOR GENONE.

Between Pharisees and Philistines I find it sometimes very difficult to choose. When I am with the bigots I am an out and out "infidel." But then on the other hand after I have talked a while with an unbeliever, candidly, in nine cases out of ten, I get up and come away feeling more "orthodox" than radical.

I suppose you wonder how this can be. Well if you're a good listener, you'll not need to wonder long, because I shall tell you.

Of course it is one thing to tell a person a fact, and quite another to put understanding into him to comprehend the fact. That I know; but one thing I can't make out,—it seems so irrational,—and that is why most people listen,—not with their ears, but with their prejudices. "He that hath ears to hear let him hear" is a good motto; but (as Mr. Ingersoll says): "He that hath a thinker to think, let him think."

The better the thinking apparatus, the better the thought product. This is certainly so in abstruse matters of mathematics, for instance. And in philosophy it is much the same. But how is it in matters of religion?

Now, of course up jumps a Philistine to say that he "does'nt believe in religion"; and a Pharisee across the room bawls out: "Only believe and you shall be saved."

As it happens, my mind,—my thinking apparatus, —is so constituted that I want to know the meaning of words. I am somewhat peculiar perhaps in this respect. I know that most people, liberal and illiberal alike, are quite content to take their meanings ready-made; but I can't do it.

There's that word "religion," for instance. Now, be honest with me, and yourself, you well-meaning Philistine, say if it is not a spook of a meaning you disbelieve in,—a spook of cant, hypocrisy, narrowness, dogmatism, stand-aside-I-am-holier-than-thou-ism? That it? Why, of course that's it. The real religion you respect every time. And you know it, too, when you see it. I even go so far as to say that some of you have got it, and don't know it either—of course it's not a very common type, sort of varioloid form of the disease, not "catching," but quite sufficient to prevent your taking the disorder in any severer form.

Then, as to "believe"; what does our orthodox friend mean, when he says, "only believe?"

Don't laugh, please, at a poor truth-seeker, and say I'm going round Robin Hood's barn; for I tell you frankly there's a great deal in belief. But if you take it all out in believing—ah, sure enough, that would be bad, and worse than bad, it would be nonsense.

If you ask my views as to what percentage of church members take it all out in "believing," why, I must ask you to excuse me; at least excuse me from making any calculation. I can guess; of course I can guess—say 0·005, or thereabouts of the average attendance. There's a guess to swear by—or at.

I don't suppose this periodical has a very extensive circulation among strict church people, but if any Episcopalian among you really hungers and thirsts after common sense let him come to me. If you are a good Episcopalian you ought to come; for what does it say in your prayer book: that "all who profess and call themselves Christians may be led into the way of truth." That's what I call a good, sensible prayer, and I am willing to be the humble instrument to carry on the work.

"Only believe." Well, well, that does look simple, doesn't it? And think what you get by it—life eternal, good comfortable quarters for all eternity. You think it's simple, do you? Just try and see how simple it is. I won't go through any process of logic; I just say, try; and I say, too, try all day, all year, all a life time, all forever, and you'll never, never get to believe by trying, but you'll go on,—whatever you profess,—believing what you're built to believe *in*.

To be sure, rational as well as doctrinal beliefs, change. Some are born to beliefs; some achieve beliefs, and some have beliefs thrust upon them, though these latter seldom stick. Belief is either automatic, unconscious, in which case the correct word is not be-

lief, but habit, or it is the effect of evidence, when alone it is genuine.

Is that the sort of thing our orthodox friends tell us to get? Alas! it ought perhaps to be, but it isn't. The kind they refer to seems more like the automatic variety.

As I look at it, in neither case is it worth much as a soul saver.

If it is difficult to believe by trying, equally so is it to disbelieve, or undo a belief once acquired. It is not only difficult; it is impossible. Only, curious as it may seem, this sort of belief has nothing in common with the other. The first is purely intellectual; the latter absolutely ideal. If you do not believe me, think of that person,—your wife perhaps,—whom you love best in the world, and see if it would be possible by any study, any patience, endeavor, or effort of will, to dismiss that love. Manifestly not. And what you cannot do yourself it is extremely doubtful if circumstances could do for you. Love—the true kind—survives all circumstances: evil report, neglect, unkindness, infidelity, even cruelty. The poet says:

> "Then tell me how love cometh;
> It comes unsought, unsent;
> Then tell me how love goeth,—
> That was not love which went."

I think, from the foregoing, plain as a corollary to a proposition, we have logically, either that there are two kinds of "beliefs," or that one kind should be labeled differently, say as—"feeling" or "emotion."

For instance I believe that $2 + 2 = 4$. If I am an advanced mathematician I believe in the "binominal theorem" and the "method of least squares"; because in this rational region belief is a function of capacity of thought.

But again, if I am given a flower to smell, do I think of ciphering out its odor? No, I put it to my nose. If I am asked my views as to the flavor of a new strawberry, can I possibly give them intelligently by any chemical process of analysis? Absurd,—I taste the berry. In this emotional region belief is a function of feeling, taste a function of sensation.

In both regions belief is,—and must ever be,—the synonym of knowledge.

I am a Freethinker. If any man tells me that I must believe intellectually what I disbelieve radically, I point to the above argument.

But how I do run on. I started out with the very best intentions to tell a yarn; I even wrote the title to the yarn, and then,—just because my thinker worked that way,—blundered into some reasoning. Usually we start out to reason, and blunder into foolishness. Perhaps my way is the better. But now for the spook mice:

My little daughter Pollikins, old enough to read, but (if you catch my meaning) not yet quite old enough to think, came home recently from school with a little mongrel pup in her arms. At first mamma was for turning the cur out, but then, you see, Pollikins cried, and the puppy was so cunning, it ended the usual way: mamma basely betrayed her trust, and when I came home in the evening all three, pup, Pollikins, and mamma, were having a frolic together.

The reasons (or wants of them) that actuate a "mamma," are not those of a man in the gas business. A pup about a house, especially if untrained, is a nuisance. But what was I to do? The coalition was too strong; I gave in, and the pup stayed on.

How mysterious are the ways of Providence! That pup taught me a lesson; indeed a lot of lessons, which, as in duty bound, I shall try to pass on to you.

In the course of a week, the mischief that dog did would surprise you if told. I diligently impressed upon Pollikins the necessity of discipline,—certainty of reward for good conduct, inevitable "wallops" for evil, and celerity for both. There is only one way to train a conscious organism; that I taught Pollikins. If she had been left to herself, Pollikins would have been all right; but mamma (as I have known, lo! these many years) had "views" as well as I, and a warm heart, which no man in the gas business can have and thrive, so when the puppy misbehaved, and Pollikins "walloped" her, and she yelped, mamma interfered directly, reproved Pollikins for what she called "cruelty," and coddled the dog. Of course, this meant ruin.

At last, finding things going from bad to worse, I took a hand at training Capers. Did I tell you his name was Capers? Well, it was. I provided a little misfortune—a switch, and then I was going to get a few lumps of sugar, as a just reward for a righteous dog, when I made a discovery. It was in the evening, the gas up high, when who should come in but my brother-in-law. He and I always contrive to get up some kind of an argument; if it isn't the tariff it's the labor problem, and if not that religion; at which latter he holds his own remarkably well, though, as I tell him, he has so little that it ought to give him no trouble. However, we fell to talking, and I, keeping up my end, began to gesticulate. The moment I did so, a curious thing happened. Capers dashed out of the corner where he had been snoozing, and rushed frantically across the room, and round about, this way and that, as if possessed. My mother-in-law, who somehow never was thoroughly reconciled to the dog, bounced up on the sofa and screamed that he had a fit.

"Heaven be praised," thought I, if he had a fit even my little girl would be satisfied that Capers had outlived his usefulness. But no; it wasn't a fit he had, nor was it, as I suggested to brother Tom, that

the dog was hunting the facts he had omitted. What he really was hunting was the light from my glasses, focussed on the floor, prancing about as I gesticulated, and Capers after it, this way and that, full tilt.

Capers wasn't so very fond of sugar ; but here was something in which he really took an interest. Since then we have gotten considerable amusement, Capers most of all, out of his antics. Then, too, I have utilised his passion for chasing the spook mice, I trust, to the pup's lasting good. By the lure of the chase for phantoms, I have taught him any number of useful and ornamental tricks : to stand on his hind legs, to give his paws, to sing, to swear, and to pray, all which he now does finely. And when he has been particularly virtuous, verily he has his reward : out come my glasses, the round spots of light focus on the patterns of the carpet, and dance hither and thither, Capers after them, delirious with joy and hope, mad as hops that he has never yet gotten his teeth into a material spook mouse, but quite convinced they are there.

I presume to that pup's dying day he will continue to believe in material spook mice. But if he in his turn has pups, and his pups pups, by and by, sure, a great, big-brained pup,—a Darwin among dogs,—will arise, all the dogs will become infidel, and the fun of chasing spook mice will be over for the race. Alas! I can't help feeling that that will be a pity. Hear me out, please ; I say it would be a pity, not that I believe in phantoms, but that even a phantom may be blessed, if it leads by the path of honest investigation truthward.

Suppose (it will do no harm to suppose) that the future brainy dog, instead of confining his line of inquiry to an analysis or a calculation, instead of being satisfied that a chase for spook mice was wholly and forever futile, should—either led thereto by a process of reasoning little short of angelic, but, more likely, by the merest accident—chance to cast his eyes upward, and see the eye-glasses, and me, and beyond, and better yet, the light, and should have the ability to draw deductions, and trace correspondences between the silly, fluctuating, elusive specks and gleams on the floor and the focus, and the real great, stable, eternal Higher Power above.

It seems silly, doesn't it! to imagine such foolishness. And yet it's bound to come, not perhaps with Capers or his progeny, but with another, more learned, more agile, more arrogant, but scarcely less silly race.

If I chose I might perhaps make a very comical comparison between Capers and some of the early fathers. There is Moses, for instance. I could depict that worthy chasing a spook mouse in the burning bush, or cavorting with his Israelites across the Red Sea after another, and be as satiric, and materialistic, and scurrilous as you please. But I don't choose. I respect Moses, and the bush, and the fire too much for that.

When we have at last given over our chase for the elusive and the illusive, and satisfied ourselves, as we think, that it is all delusive ; when the ardor and rapture of aspiration for the material give room to a certain lethargy, and despair mocks and gibes at our inevitable failure, shall we then say, It is all failure ; there is nothing tangible in the light, therefore there is no light? Fool, the light is the one reality. It is the light shining on the symbol that is holy. There is nothing sacred in an image, but the light is sacred.

And yet not a few who have read some of my writings tell me, more or less civilly, that I have no respect for anything sacred. Alas! how mistaken they are. I wish these people could look into my heart. But while in many ways they are transparent to me, I am opaque to them.

My home is not far from an orphan asylum, and sometimes when the windows are open, I hear the little imps carolling, and I shut off the cold faucet of philosophy and turn on the warm current of love for all mankind, and listen only to join the choir invisible while they sing:

> "Jesus like a shepherd lead us;
> Much we need thy tender care,
> In thy pleasant pastures feed us;
> For our use thy folds prepare;
> Blessèd Jesus, blessèd Jesus,
> Thou hast bought us ; Thine we are."

not ashamed to feel, as the urchins ought to but do not, the sublimest, perhaps, of all emotions,—the reverence of the thistle-down for the wind,—the submission of the lower to the nobler self.

Some call this sort of thing sentiment unworthy a thinker. Others, the orthodox, call me an unbeliever. And these, on Easter day, will go to their costly temples, sit in luxurious pews, see the altars piled high with lilies, and think perhaps in stifling thought they are doing honor to the Nazarene. As Whittier has written :

> "Ye bow to ghastly symbols,
> To cross and scourge and thorn;
> Ye seek his Syrian manger
> Who in the heart is born."

SCIENCE AND REFORM.

THE FAR-WEST MIRAGE.

The Spanish sailors of the Middle Ages used to while away the summer-night watches with traditions that seemed to foreshadow the discovery of the New World, but in the meantime often lured the precursors of Columbus to their ruin in the water-wastes of the stormy Atlantic. The successive discovery of Madeira, the Canaries, and the Cape Verde Archipelago may account for the visions of storm-tossed mariners, whose fancy shaped vistas of Eden from the cloud-banks of the Western horizon ; and on a similar theory we may explain the delusion of the East American farmer, who leaves the garden-land of the Alleghanies for the deserts of the Far West. The imposition of Western land-sharks may have helped to foster that exodus-mania, but its roots can be

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traced to the fact that for a long series of generations Anglo-Saxon agriculturists actually improved their condition by migration towards the lands of the setting sun. The Teuton settlers of Schleswig-Holstein were not aborigines of those fertile marshes and had probably come from some bleaker region further east—North Poland, perhaps, or the central plateaus of the Sarmatian plain. Then came the British land-grab and the progressive settlement of an island that derives its chief climatic blessings from the West. In America, too, the wisdom of Horace Greeley's advice remained unimpeachable till the migratory colonists had pushed their camps beyond the Mississippi and found to their cost that they had passed the goal of their ancestor's day-dream. General Fremont already recognised that fact in pointing out the analogies of our sage-brush deserts and the Mongolian steppes, and Hazen's pamphlet on "Our Barren Lands" ought to have opened the eyes of all but the wilfully blind. His predictions were more than justified by the fearful experience of drought-stricken settlers in Kansas, West Texas, and Nebraska, but the traditions of eighty preceding generations are not so easy to eradicate, and the admiration of the West, as the source of wealth, seems hardly less argument-proof than the adoration of the East as a source of wisdom.

NOISE MARTYRDOM.

There is no doubt that, next to stimulant-vice, noise is the chief cause of the constant increase in the number and malignity of nervous disorders. The racket of modern civilisation is getting worse every year, and the trouble is that the affliction does not readily admit of subjective remedies. "Why don't you stop up your ears and let Bedlam roar away?" asks our optimistic friend; but his question would be answered if he should try his own plan. The attempt to obstruct the sense of hearing by mechanical appliances results in a continuous humming in the ears,—a phenomenon as troublesome as any external noise, and unrelieved by the blest pauses of silence that mitigate the horror of street uproar in all but the busiest cities of Christendom. The voices of traffic are too manifold to be abated by municipal by-laws,—though the citizens of Sybaris are said to have managed the thing by banishing noisy trades to the suburbs,—but a considerable step in the right direction is the plan of making indoor life less obstreperous. An Antwerp correspondent describes a model sitting-room exhibited at the World's Fair and abounding in noiseless appliances of electricity. The windows will glide up and down without the faintest creak; on the simple pressure of a button the doors will swing open as if on magic hinges. Electric calefactors will take the place of crackling chimney-fires, and cans of tea and water will be kept warm by coils of wire underneath the cooking apparatus.

ANTI-MONGOL PRECAUTIONS.

The Judiciary Committee of the House of Representatives has, after all, reported adversely on a bill enabling Japanese to become citizens of the United States. The danger of a mass invasion from the land of the Mikado is not very serious, but the reports from the seat of war may have suggested a misgiving that the Children of the Setting Sun are apt to make up in pluck what they lack in numbers. Committee-members from the Pacific Slope may also have learned to appreciate the mercantile ability of the "Asiatic Yankees." "What made you object to my chum?" asked the friend of a tourist who had in vain sought admission to the sportsman's club of a German summer-resort, "don't you consider him a first-class sportsman?" "Oh yes, and a gentleman, too," replied the candid native, "but you know he has practised buck-shooting in Ceylon, and we have not many deer to spare."

A LIVELY NEIGHBORHOOD.

The delta of the Zambesi River is so infested with pirates that the Portuguese settlers take the last sacraments of the Church before entrusting their lives to a ferry-boat, and travellers on the Rio Grande frontier will soon have to adopt a similar precaution. The entire Mexican border from Matamoros to El Paso swarms with cutthroats, and in the State of Chihuahua alone highway robberies have reached an average of a dozen a week. Further west matters are even worse: the Yaqui Indians have descended from their highland strongholds, and the state of affairs near Hermosillo seems to rival the Faustrecht chaos of the Middle Ages. Is it the chance of escape to a land of strangers, that makes border-regions so specially liable to afflictions of that sort? For Spanish Americans are by no means all "Children of Chaos." The citizens of Oaxaca are as law-abiding as any Saxons, and the Province of Vera Paz almost deserves its poetic name: "The Land of True Peace."

VACATION PRIVILEGES.

The new Bishop of Bath and Wells denounces the thirst of gold as the root of all evil and wants his countrymen to cease sacrificing their hope of a spiritual competency to the restless pursuit of a financial surplus. The antithesis of the venerable reformer is well pointed, but he might as well try to stop the rush for office in a country where Government employment is the only road to honor and prosperity. In China a man has to be either a mandarin or a cipher, and under the present system of British Sunday laws a law-abiding citizen has either to acquire the means of indulging in the luxury of a yearly vacation or wear out his life in drudgery, aggravated rather than relieved, by the deadly tedium of a Puritan Sabbath.

FELIX L. OSWALD.

NOTES.

For a more exhaustive explanation of Mr. Alfred W. Martin's views concerning the demands of unsectarian or universal religion, mooted in *The Open Court* for August 9th, we may refer interested readers to the *Free Church Record*, Vol. II, No. 4, wherein the subject of "Christianity and Universal Religion" is more fully treated. By addressing Mr. Samuel Collyer, Tacoma, Wash., copies of this issue of the *Record* can be obtained.

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LABOR-DAY.

It has become customary to celebrate the first Monday in September as Labor-Day. Not the authorities of State or Church have introduced the new festival, but the laborers; and well may they be proud of it, for it is one of the signs of the time, indicating that a new era is dawning upon mankind in which labor will no longer be regarded as a burden and a curse, but as the true and, indeed, the noblest manifestation of our existence. Labor, as we understand it now, is the very substance of our life and the seal of our manhood. He who does not labor does not live; his existence is empty; his soul is a cipher; and when death comes he is doomed to an ignominious annihilation, for immortality must be earned by wisely directed work and untiring exertions.

In commemoration of Labor-Day, which now has become a legal holiday, let us consider the significance of labor in its most important aspects, which are:

1. The curse of labor as drudgery;
2. The origin and nature of labor;
3. The blessings of labor;
4. The dignity of labor; and finally,
5. The problem of labor.

All ye who labor and plod, who work and toil, almost breaking down under the burdens that the various stations of life in which you live place upon you, lay aside for a moment your axe, pickaxe, hammer, spade, or pen, and your cares; cease worrying, for a moment, and pause to think of the nature of your labor. I trust that by rightly understanding the significance of labor, you will gain the right attitude in life, and if you do, you will resume your work with greater vigor. If you comprehend the grandeur of labor, its importance in your psychical development, and the close relation in which it stands to the very essence of your soul, you will become reconciled even to its unpleasant features, and will rejoice at the very idea of being a laborer, called upon to contribute his mite in building the glorious temple of humanity.

I.

Labor is by no means a pleasure; it is not mere sport or play, but a very serious occupation; there is no trifling about it. Labor is hard work in almost all the walks of life: no wonder that it at first sight appears as the curse of mankind.

We read in the holy legend of the Old Testament that Adam's disobedience brought down upon his race the dire destiny of drudgery and death which changed paradise into a valley of tears. God's wrath makes the access to the resources of the earth difficult; the ground is cursed, and in sorrow shall man eat of the herbs of the field all the days of his life. Thorns also and thistles shall it bring forth, and he shall eat his bread in the sweat of his brow until he return to the ground out of which he was taken. "For," says the Lord, "dust thou art, and unto dust shalt thou return."

This curse of labor as symbolised in thorns and thistles does not rest upon the tiller of the soil alone; but also upon the artisan, the mason, the miner, the manufacturer, the merchant, the teacher, the artist, the poet. All labor in the long run is hard; and it is the exception only that from time to time labor becomes easy in one or another department of life. The rule is that whenever the rewards of work are extraordinarily bounteous in one field of industry, a rush of competition towards the centre of low pressure will set in according to the same law that regulates the distribution of water and the conditions of our atmosphere, always tending to a universal equalisation.

It is generally supposed that the wealthy do not feel the pricks of the thorns and thistles growing in the various fields of human work, and it is true that there are some few who draw the interest of a goodly inheritance and their capital being securely invested have little idea of the enormous exertions which the mass of mankind must make in order to continue existence in the present state of civilisation; but it is an error to think that our capitalists so called, i. e., those men who possess wealth and use it for the production of more wealth in industrial enterprises are exempt from the curse that rests upon labor. Their lot is, closely considered, not better than that of other mortals. Certainly they enjoy great advantages, but their position is at the same time more intermingled with worries, unknown to the rest of mankind, while the danger of losing their preferences is more dreadful to them than the loss of life to the frugal day-laborer.

It is a well-known truth upon which the poets of all times have dwelt, that more and truer happiness is found in the humble cottage than in the palaces of the powerful. Shakespeare's words "Uneasy lies the head that wears a crown," is true not only of those who sit on royal thrones, but, in a proportionate degree, of all rulers, leaders, directors, of all who wield power of any kind in all the various walks of life. Wealth invested in industrial enterprises is in a constant jeopardy, and if not managed with great circumspection will quickly dwindle away to the detriment of the owner and all those who are dependent upon him; but while the latter have their chances to embark in some other and more successful venture, the former as a rule is ruined with but slight hope of recovery which demands more energy and luck than before. He is in the position of a workman whose tools are broken and there is no one who will replace them. He has become unfit to train himself for other work, as much so as a driver who, on the opening of a new railroad line having lost his trade, vainly attempts to fill the place of an engineer. And nothing is harder to bear than a reversion of progress previously gained.

Considering all in all, is it not natural that the so-called middle classes alone possess, as it were, a monopoly of the enjoyment of life? Among them we find all those boons which cannot be bought with money, or money's worth. Among them we find humor, laughter, and genuine contentment; among them we find humanity at its best, with the immediateness of limpid sentiment and the warmth of unreflecting love. Here the curse of labor, equalised to a steady state of the psychical barometer is least perceptible, and the sky of the soul is mostly serene. Yet even here its pressure is never absent, for, indeed, it surrounds mankind everywhere, and nowhere can we escape from it.

II.

The sufferings of mankind, its cares and toils, are so universal that they appear to be bound up with life itself. Our forefathers dreamed of a life without labor and thought that labor had come into the world as the penalty of sin, but a careful investigation of the nature of life will teach us that labor is an intrinsic feature in the constitution, not only of this earth, but of any possible world of living beings.

No exertion would be needed in a universe which consisted of inert matter only, but as this world of ours is a world of life, of spiritual aspiration, and of progressive evolution, we have labor. Labor is simply the consequence of life, and labor alone is the means of the acquisition of higher life.

If we lived in a paradise with an abundance of supplies for the necessities of life, mankind would soon increase so as to utilise them to their full extent, and we should artificially have to create new resources to render the old ones more productive, or if the limit were reached, struggle would arise; and struggle is only a peculiar form of labor, involving the same or even greater hardships.

Growth is impossible without labor, and thus labor is inevitable in any possible world in which organised life appears. Without labor, life would never develop from its lowest plane to higher and ever higher conditions.

Suppose the supplies for the sustenance of life were so inexhaustible that they were in space everywhere, that they surrounded us as water surrounds the fish; and suppose the ocean of life were as boundless as infinite space, would not life be satisfied in itself? Would it ever develop higher qualities than those of a senseless vegetation? A life without wants lacks the stimulus of evolution. Resistance is needed to develop the spirit of man and his rational will. Progress, growth, aspiration would be meaningless in a world without needs; they are actually impossible; but if they were possible they would be redundant and even nonsensical, like the fixed ideas of a lunatic.

Labor is inseparable from any life that has a purpose, for labor is the accomplishment of a purpose, and by labor we rise higher and higher on the ladder of life.

Labor is the school of the soul; it is the educational system of nature by which she rears her creatures, imparting to them her lessons and instructions. But since labor constitutes the object-lessons of mankind's education, it is labor which begets our souls and creates the substance of which our spiritual being consists.

What is our eye but the sum of innumerable memories of seeing? Every organ is the inherited product of a constantly repeated activity.

If a being in any of its organs fails to suit the conditions under which it has developed, it is cut off from further existence, while the most perfect individuals are selected from the continuation of its kind.

Man's entire organisation, corporeal as well as intellectual, is, as it were, capitalised labor; it is the preservation of former work employed to render future work more effective. When the psychologist on the loom of science unravels the web and woof of the human soul he finds that there is nothing in it but work and the product of work. Does not this consideration open a new vista for the appreciation of labor?

III.

Thus we see that the origin of labor rises from the needs of life, and labor itself is the means of acquiring a greater fulness of existence. Labor is the symptom of the presence of spirit; it is the manifestation of

spirit, for without labor the soul could never make its appearance in the world.

According to the law of cause and effect a premium is given to those who strain their energies most potently in the right direction of the evolution of life. Those who swerve away from the straight path or lag behind in the general advance are cut off in the competition for survival. Thus we understand that nature always exacts the greatest possible exertions, appearing to her children as a cruel taskmaster, driving those who loiter with ruthless lashes of her whip, and taxing the strength of all to the utmost.

The unavoidable urgency of labor for the mere sustenance of life and its exigency are perceived as a tyrannical oppression, and this is the reason why we can speak at all of the curse of labor; but understanding that our labor represents an onward march, and that every step taken in the direction is an advance to higher conditions of life and a noble evolution of spirit, we shall see that the hardships of labor beget the highest blessings attainable.

Consider but the nature of your soul, analyse your own spiritual being, unravel the skein of your ideas, thoughts, desires, habits, aspirations, and you will see that you are the product of labor previously done. There is no living being but consists of the summed-up inherited memories of innumerable exertions since an immeasurably remote past.

How wonderful is the structure of man's bodily system, nay, of every tree, every rose, every blade of grass, and of any creature of any description. Their nature is determined according to the law of cause and effect by all their actions in former existences and in their present state of being. Special conditions make life react in a special way, and every mode of reaction forms a precedent. It is preserved as a memory ready for revival. It stays and remains an immortal presence for all time to come. Thus it is for our own benefit that nature forces the unwilling like a slave-driver to exert themselves, for while toiling and laboring we are building up our souls and immortalise our being in the universal life of mankind.

Labor, accordingly, forms the contents of life and the substance of our soul. Labor, with all its grievances, is a blessing, nay, it is the source of all blessings; it is the condition of man's humanity and the foundation upon which rests his dignity.

IV.

The life of a man who does not labor is an empty blank. He is like seeds that uselessly rot away without sprouting and blossoming out into a full evolution of the noble potentialities to which his spiritual inheritance has destined him. The constant application of our talents is the price we have to pay for continuing on the list of the living. Says Faust in the dying scene:

> "Yes! to this thought I hold with firm persistence
> The last result of wisdom stamps it true:
> He only earns his freedom and existence,
> *Who daily conquers them anew.*
> Thus here, by dangers girt, shall glide away
> Of childhood, manhood, age, the vigorous day."

The luxuries of life and the ease afforded by great wealth quickly inveigle men into loose ways of action and entice them into indulgence in the pleasures of life to the neglect of industrious work and serious occupation. The truth is that most men, perhaps all of us, need a certain pressure which will gently compel them to work out their own salvation, few can stand affluence or ease. Goethe, who knew the breadth and depths of the human soul, says:

> "Nichts ist schwerer zu ertragen,
> Als eine Reihe von guten Tagen."
> [Nothing more difficult to bear,
> Than many good days devoid of care.]

By labor alone we acquire the right to our manhood; he who does not work is not worthy to be called a man; he is like the prodigal son who wastes his inheritance and is doomed, in his spiritual existence at least, to sink down to the level of the swine, for he feeds his soul with intellectual swill and degrades his nobility to the self-indulgence of a mere vegetative existence, which will finally doom his type of existence to an ignominious extermination.

There was a time, and in some parts of the world it still lingers with us, when the ruling classes arrogated all the rights to themselves and shouldered all the duties upon others. The enfranchisement from labor was considered the privilege of the aristocracy. This principle was carried to its extreme in France since the time of Louis XIV., reaching its climax under Louis XV., and tragically ending in the catastrophe of the French Revolution. It seemed possible to the powerful to divide society into two castes, one born for enjoyment only, the other destined to work. They contrived a plan of throwing all the burdens of life upon the so-called *tiers état*, the third estate, which compared with the nobility and clergy was considered as a lower class, while luxuries and pleasures were reserved to those of noble birth. The consequence of this policy was the emasculation of the so-called upper classes, and while the *tiers état* had been nothing but the drudge of the others, it, by this very reason, became the standard-bearer of the civilisation and at last the sole wielder of all power. Said the Abbé Sièyes in the critical days before the outbreak of the Revolution:

"*Qu'est-ce que le tiers état?*" (What is the third estate?) and he answered, "*Tout*," i. e. all! The *tiers état*, he said, does all the work, industrial as well as intellectual: in the fields, in the trades, in the government, in the army, among the clergy, and at the

bar: the *tiers état* is burdened with all that is toil or worry. Those positions, however, which are endowed with rich emoluments and honors are exclusively in the hands of the aristocracy. This oligarchy of the privileged is a social crime and treason against public welfare. An aristocracy which places itself above the nation ceases to belong to the nation and is no longer a part of it. Those who labor are all, and ought to be all.

It is scarcely necessary to add that we use the word "labor" in its most comprehensive meaning. The term "labor" is applicable, not only to the work of the man who carries the hod, but also to the planning of the architect; it embraces the exertions of the sailor and also the thoughts of the captain who directs the ship's course. Toil is entitled to respect and sympathy, but let us remember that toil is not limited to those whose work can mechanically be measured, because it is performed with muscles; toil is the common fate of all workers.

It is characteristic of the national character of our country that labor is no longer regarded as degrading. Our most prominent men and women in all branches of public, industrial, commercial, and private life have never been ashamed to work; indeed they have been great workers, and success in this country, more so than in any other, depends not on birth, inherited wealth, or even natural gifts, but upon the energetic application of our abilities in practical life. America is destined to produce an aristocracy of laborers, not of such as impose restrictions upon those people who do not belong to a certain clique or clan, but of true laborers, of producers and increasers of wealth, of men who regard labor as the seal of man's manhood, as evidencing his worth and proving his dignity.

V.

There are many more considerations which suggest themselves in connexion with our subject. It is, for instance, a strange fact that every useful work tends to spread its blessings over the whole world. It is as if all mankind were destined to inherit the boons of a worker, a thinker, an inventor. What, for instance, have the Bedouins done to deserve to be benefited by the invention of rifles? Nothing at all. Nevertheless, they have their guns and protect themselves against wild beasts and other enemies, as if one of their fathers had invented the use of gun-powder. The same is true of all other inventions, the benefits of which are communicated more and more to all mankind. Further, no one can utilise capital, which is the hoarded treasure of former labor, without engaging labor, and thus opening to laborers new fields of employment. This world is not built to accommodate the egotist who wants everything for himself, but it aggrandises him only who communicates the fruits of his industry to his fellow-men.

Before concluding this lecture allow me to add only one more consideration. We must learn that the so called labor problem is not due to special conditions of the present time which by the application of some panacea can be solved, but that it is the present condition only of labor in its import to the various members of the human race. It is an expression of the resentment against the unavoidable hardships of labor the cause of which is often ill understood, and also the constantly renewed attempts to readjust their equal distribution. The hope that the time will come when the labor problem will be definitely settled can only evoke a smile. We might as well expect to suppress all storms and produce never ceasing sunshine upon earth.

Our authorities endeavor to give full liberty to the readjustments between the various classes of society among themselves and also between single classes in their relations to the public at large, as they appear in strikes and other social disturbances, for a suppression of discontent by force will prove only a temporary expediency, and on the other hand the struggling parties must be educated to the full consciousness of their responsibilities. They must understand that the ethics of social struggle demands a strict obedience to the law. As soon as they resort to violence they will have to suffer violence themselves. "All they that take the sword shall perish with the sword" (Matth. xxvi, 52). No strike has as yet been successful through intimidation, destruction of property, or rioting. Illegal acts can only ruin the party for whose benefit deluded zealots commit them. What we need is evolution, not revolution.

The solution of the labor problem as it is to-day can end neither in the abolition nor in the nationalisation of capital, but must seek its increase and wide distribution. He who lives from hand to mouth must acquire foresight, he must learn to save and imitate the capitalist in his thrift and circumspection; in a word, he must also become a capitalist.

The more capital our laborers acquire, the better wages can they exact, and the more prosperous will be the whole state of society; for a laboring class which is possessed of means not only will be better educated but can afford to be independent. It need no longer solicit the patronage of capital.

When the laborer is destitute capital engages labor at the lowest price a laborer can afford to accept; however, where the laborer is himself a capitalist he can exact the highest price capital can afford to pay. And let me add, in the degree that the laborer partakes of the risks and sorrows of capital, he will become more conservative; his judgment will be maturer and he will

know what he can reasonably demand of capital. Nor is there any doubt that under the more favorable conditions of a larger stock of capitalised wealth, all his reasonable demands will be granted.

Thus we conclude with the paradoxical propositions that our capitalists in order to prosper must remain laborers, while our laborers for their own welfare must become capitalists.

Let us not look for a millennium on earth, but let us hope for progress. This life is intrinsically a world of labor, and the laborer is he who builds the future. Labor consists of toil, drudgery, and privations of all kinds, yet it is the essence of all that is great, noble, and elevating. As the word of the Psalmist expresses it:

> "The days of our life are threescore years and ten; and if by reason of strength they be fourscore years, yet is their strength labor and sorrow."

P. C.

BUDDHISM IN JAPAN.

BY NOBUTA KISHIMOTO, M. A.

IV. PRESENT CONDITION.

ALTHOUGH Japanese Buddhism is divided into many sects, yet these sects agree in many points. I have said above that there are three systems of religion and morality in Japan: Shintoism, Confucianism, and Buddhism, living together on friendly terms, helping one another and supplying one another's insufficiency. Shintoism in itself has at least ten different sects, while there are two broad divisions among the scholars of Chinese philosophy. As to Buddhism, there are ten (or, twelve) sects in existence which in turn are subdivided into more than thirty minor sects.

One might suppose that if there are so many sects and subsects among the Buddhists, there must be some narrow sectarian spirit among them. Yes, there is some such spirit; and yet as in the case of the different systems of religion and morality, so also among the different sects of one system, the relation is more friendly and pleasant than one is apt to suppose. Most Buddhists admit that Buddha taught all sorts of teaching according to the needs of the special case and the degree of intelligence of his hearers. He is said to have preached both the Hinayâna and Mahâyâna doctrines, both the temporary and permanent doctrines, both the sudden and gradual doctrines, both the expedient and true doctrines, and finally both the esoteric and exoteric doctrines. It is natural, of course, for the followers of each sect to regard their own sect as superior to the rest, but the majority of the Japanese Buddhists admit the peculiar excellence of each and all of these different sects.

It is important to bear in mind that the followers of Buddhism, in Japan, as elsewhere, are divided into two great classes, the clergy and the laity or the special believers and the ordinary believers. By the clergy I mean priests, monks, and nuns, who forsake this world and its pleasures to devote their lives and their all to the study and promulgation of Buddhism. By the laity I mean the ordinary men and women who live ordinary lives and pursue ordinary occupations, yet who believe in Buddhism and seek to be saved. The clergy, as a rule, adhere more strictly to the teachings of their own respective sects and call themselves by the name of the sects to which they belong. But among the lay members this line of demarcation, although there is such a line, is very faint and very irregular. It is true that every family in Japan used to have its own sect, as the sect of my father's family was the Jodo sect. It is true, also, that in certain districts certain sects are more predominant than other sects. But it is also true that many a temple of one sect is crowded by the believers of the different sects, while the temples of the different sects are visited by one and the same pilgrim.

Now let us investigate some important features of Japanese Buddhism, which are common to all the sects and also common to both the clergy and the laity.

All these sects agree not only in tracing the fundamental origin of their teaching and thought to Buddha, but also in not being atheistic. This double agreement is remarkable, for, as far as we know from the Pâli or Southern Scriptures, which are generally regarded as purer and older than the Northern ones, Buddha did not admit the existence of God, neither did he attempt to explain the origin of the universe. In Mâlunka sutta we have the following story, which Spence Hardy gives in his Manual of Buddhism. "When Mâlunka asked the Buddha whether the existence of the world is eternal or not eternal, he made him no reply; but the reason of this was, that it was considered by the teacher as an inquiry that tended to *no profit*." Thus not only the primary origin of the universe was left unsolved by Buddha, but the general tenor of his whole teaching is against theism, the doctrine that affirms the existence of One Permanent and Personal Cause of the universe. The salvation taught by Buddha is well described by Dr. Rhys Davids in the following words: "Salvation merely by self-control and love, without any of the rites, any of the ceremonies, any of the charms, any of the priestly powers, any of the gods, in which men love to trust." Such seems to have been the original teaching of Buddha, assuming the Pâli Scriptures to be the faithful record of his teachings.

Now, all the Japanese Buddhist sects trace their origin to Buddha and call themselves Buddhist sects, but none of them is as atheistic as this original teaching of Buddha. Instead of being atheistic, some of

them are pantheistic, while others may almost be called theistic. Most of them assert that all living beings have the "nature of Buddha" and hence they can attain Buddhahood—the calm and happy state of Enlightenment—either in this life or in a future one. As this "nature of Buddha" is regarded to be everywhere and within reach of every living being, and as it is, in one sense, not substantially different from that immanent principle of life or energy which pervades the universe, all those sects which hold this view may be called pantheistic. Some sects assert the existence of an all-wise and all-compassionate, as well as eternal and permanent, Being called Amitabhā Buddha, whose special residing place is the "Pure Land in the West." As far as I can see, this conception of Amitabhā is not much different from the Christian idea of God who is said to be in heaven. If the latter can be called theistic, I see no reason why the former should not be called theistic. Anyway, all the Japanese Buddhist sects differ from the original teaching of Buddha in their not being atheistic.

In the second place, all these sects agree in the belief in the *transmigration of the soul.* I say the "transmigration of the soul," and not simply "transmigration," because not only the conception of transmigration is impossible without something to transmigrate, but as a matter of fact the most, I might say *all,* Japanese Buddhists admit the existence of the soul as well as its transmigration. As to the question What becomes of individual souls when freed from transmigration, some difference of opinion exists. Some seem to think that then the consciousness of individual souls as separate entities ceases because of their enlightenment, that the separate existences are illusions, everything being Buddha and Buddha being everything. Others take a less subtle point of view and claim that all souls will continue as such, each enjoying the eternal and pure happiness in Paradise. But both of these schools unite in the teaching that, as long as there is necessity for transmigration, so long the individual souls will continue to exist as such.

It is universally admitted, even by the Western Buddhist scholars, that Buddha taught the doctrine of transmigration. But did Buddha admit the existence of the *soul* capable of transmigration? The Western scholars tell us that the doctrine of âtman, i. e., of soul or self, was regarded by Buddha, together with sensuality, heresy, and belief in the efficacy of rites and ceremonies, as the four things which cause birth, pain, decay, and death,—the "four miseries." According to them, Buddha denied the reality of the immortal soul or self, as well as the reality of God and the universe. If so, what transmigrates? Transmigration is admitted, but there seems to be nothing left to transmigrate. How can we reconcile this inconsistency?

Some Japanese Buddhists are of opinion that in one sense Buddha denied the reality of the soul, but in another sense admitted its reality. He denied the reality of the phenomenal or conscious soul, but he did not deny the reality of the noumenal or real soul. These scholars seem to admit that there exist certain forms of activity, which lie in man behind what we call his conscious soul, and which only under certain conditions emerge above the horizon of consciousness; that this activity is subject to both subjective and objective influences, so that habits and tendencies can be formed in it; that it is indestructible and is destined by a mysterious law of transmigration to pass through different lives and generations. In this way the above inconsistency is reconciled. The fact of transmigration is accounted for by the indestructibility of these forms of activity, while the denial of the existence of the "âtman, soul, or self," can be explained by this, that Buddha denied only the existence of the phenomenal soul, the "noumenal soul" being left untouched. Even Dr. Rhys Davids, when he says that "the 'grasping state of mind' causes the new being (not, of course, a new soul, but a new set of skandhas, a new body with mental tendencies and capabilities)" seems to admit the transmigration of some "mental tendencies and capabilities," if not the soul itself.

In the third place, all our Buddhist sects agree in the adoption of the doctrine of *karma.* Whatever be the origin and nature of the doctrine of transmigration, it has always been very influential among the Buddhists, because it explains the apparently unjust distribution of happiness and misery here on this earth. The word *karma* literally means "doing," or "deed," but it is generally understood to mean rather the "result or fruit of doing or deed," than "doing or deed" itself. The essence of the doctrine of *karma* is well expressed by the sentence: "Whatever a man soweth, that also shall he reap." You may die and your body may decay; the result of your deeds, either good or bad, does not die. Sooner or later you have to reap the fruit thereof. Thus if you are in a miserable condition in this life and yet cannot suspect any cause of your own for that condition, Buddha will tell you that "you are reaping the effect of your evil deeds in your past lives, for although your consciousness may cease and your body may decay, yet your actions, words, and thoughts will live and work out their full effect either to the pleasant or the bitter end in this and in coming lives, till an end is set to all by the attainment of Nirvâna.

In the fourth place, all the Japanese Buddhist sects agree in the adoption of the doctrine of *Nirvâna,* although as to the exact meaning and condition represented by this word they differ among themselves, while they also differ more or less as to the exact na-

ture of the original teaching of the founder of their religion. What Buddha meant by Nirvâna is not the question I propose to investigate. Whether he meant by Nirvâna the complete annihilation of the body and the soul, or only the "extinction of that sinful, grasping condition of mind and heart," is immaterial here. The Japanese Buddhists are widely different in their understanding of the nature of the state indicated by the word Nirvâna. Some sects identify Nirvâna with the Western paradise, and with them to enter Nirvâna means to enter into this happy and eternal life of the Pure Land where death and sorrow are unknown. Other sects understand Nirvâna to mean a calm and blessed state of enlightenment, free from all sorts of evils and disturbances. This state of enlightenment can be entered into here on this earth, for it is the result of discipline and contemplation. Thus with the Japanese Buddhists, Nirvâna does not necessarily mean the annihilation even of the body, for many of the pleasures of the Western paradise are of a physical nature. Far less does it mean the annihilation of the soul. Nirvâna is universally represented as the blessed state of existence, in which there is no birth nor death. It is also regarded as of eternal duration. It may begin here on this earth, but it will continue eternally on the other shore of the sea of sorrow and death. If there is any idea of annihilation contained in the doctrine of Nirvâna, as it is understood by our Buddhists, it is found in the annihilation of evil thoughts, evil desires, and evil passions. These must be destroyed, for without their destruction the attainment of the state of enlightenment is impossible. Thus even here the distinction is clear. We annihilate evil passions *in order* to attain Nirvâna, and hence this Nirvâna must be something positive and not a mere negation.

In the fifth and last place, all the Japanese Buddhist sects are unanimous in being ultimately optimistic in spirit and in teaching. At present, whenever one hears the word pessimism pronounced, his associations will soon carry him either to Schopenhauer or to Buddha. The former represents the modern pessimism, the latter represents the ancient pessimism. The one was born in Europe, and the other in Asia. The one taught his pessimism in the midst of the Christian civilisation, while the other preached his pessimism among heathen ascetics and idolators. How much is common between these two systems, or how much pessimism was really contained in the Buddhism of Buddha, does not concern us here. Suffice it to say that Buddha was so deeply impressed with the impermanence and misery of human life, that he is reported finally to have arrived at the conclusion that existence itself is an evil, and that an end must be put to our own existence. Here lies the fundamental pessimism of the teaching of Buddha. He thought that our life is full of sorrow and suffering; that desires are the cause of the origin and continuation of life; that these desires must be annihilated in order to put an end to both our life and its misery; that to annihilate our desires we must practise "eight virtues"; and that to practise these virtues and thus to attain Nirvâna the best way is to renounce this world and to join the Order.

In Japan, as well as in China, Buddhism is not so absolutely pessimistic. Indeed, it becomes more and more optimistic as it journeys further and further from its native soil. The Buddhism of China is, generally speaking, more optimistic than that of Buddha himself, and again, the Buddhism of Japan is more optimistic than that of China. Theoretically, most Japanese Buddhist sects hold a pessimistic view of the present world, but practically the monks and priests of these sects are in many respects made optimistic by the healthy and cheerful influences of the Japanese social life. Many sects declare that even in this life, even with this material body born of parents, one can attain the state of happiness and enlightenment. Buddhism is much more optimistic in its relation to the present world in Japan than anywhere else.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

THE PARABLE OF THE GOLDEN BOWL.

THERE was a certain rich man which had a great household and many servants;

And he was old and well stricken in years, and he had an only son in whom his soul delighted.

Whom he kept under governors till the time should come when he was of full age.

And the lad grew and waxed strong, for he ate simple food convenient for him, even bread and the milk of kine and goats.

And the lad had a wooden bowl from which he ate, fashioned like unto them his father's servants used.

But it came to pass that his father made a feast; and while the guests dined, the lad looked in upon them as they sat at meat;

And he saw and beheld that every one had a golden bowl and did eat therefrom.

And the lad was grieved and said unto his father, Give me, I pray thee, likewise a golden bowl that I be not ashamed.

And his father took the wooden bowl and called an artificer, and the artificer did gild the bowl.

And the lad did eat from the gilded bowl and was content, and became puffed up because of the bowl.

Then the tutor said unto him, Why art thou puffed

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up? And he showed him a bowl of gold, and let the lad take it in the one hand, and his own gilded bowl in the other.

Then said the lad, My father hath deceived me. And he ran and told his father how he had weighed the bowls in his hands, and his own was wanting;

Again his father sent to the artificer; and the artificer took the wooden bowl and in it he put a lump of lead, and did gild it yet again.

And the lad took the bowl that was gilded and rejoiced in that he found it heavy;

And he was puffed up yet the more, and did say unto the servants and the tutor that he was the heir, and boasted exceedingly.

That same day was another feast made; and the lad said unto his father, Bid me, I pray thee, to the feast, for I have a golden bowl even as thy guests which are bidden.

And his father did as the lad desired;

And the feast was made, and every guest at the feast ate, every one out of his own golden bowl.

Now when they had done eating the priest came in, saying, Give now thine offerings unto the Lord, every man his own offering.

Then every man gave his offering unto the priest, yea, every man his own golden bowl.

And the priest took the bowls, beginning at the first unto the last, from every man his own bowl.

And as he took the bowls he said unto him whose offering it was, Is this thine offering?

And the guest, each in his own order, answered and said, It is mine offering.

And the priest spoke again, saying, Is this thine offering which thou hast made worthy for an offering unto the Lord?

Then every guest answered, each in his own order, It is worthy. Test it, I pray thee, whether or not it be worthy for an offering unto the Lord.

And the priest took the offerings of gold and tried them; for every man his own offering; and every offering was found worthy.

And when he came unto the lad he said also unto him, Is this thine offering?

And the lad answered and said unto the priest, It is mine offering.

And again the priest said unto him, Is this thine offering which thou hast made worthy for an offering unto the Lord?

Then the lad answered, It is worthy.

And the priest was wroth, and said, Sayest thou not unto me, test it, whether or not it be worthy for an offering unto the Lord?

And while the lad was dumb before him, the priest tried the bowl, and it brake in pieces like a potter's vessel, and the leaden weight fell out.

And the lad was shamed before them all, and he went out and wept bitterly.

But while he was yet weeping his father came unto him. And he called together the servants and the tutor, and said unto them,

Bring unto this my son another bowl of wood and let him eat therefrom until the time that he shall be of full age.

And unto the lad he saith, Now seest thou my son thy folly and thine haste. Tarry yet awhile under thy governors.

Thou didst think in thy heart that I dealt not aright thee, and didst say with thy lips that I deceived thee.

Yet was it in love that I tempted thee and tried thee, and showed thee both the false and the true.

And the lad cried unto his father, saying, O father, I have sinned in that I have desired to be that which I was not. Father, forgive me, for I knew not what I did.

NOTES.

The Labor Day address published in the present number of *The Open Court* was delivered, on September 1, at the camp of the Spiritualistic Association of Lake Brady, Ohio, upon the invitation of its president, Capt. Benjamin F. Lee. The editor of *The Open Court* enjoyed on this occasion a visit at one of the headquarters of spiritualism, where he became acquainted not only with several leaders of the movement but also with their customs, modes of thought, and aspirations. He has seen much that was new to him, the report of which would prove very interesting. But the subject is too great to be disposed of without entering deeper into several intricate problems, and venturing more boldly into an investigation of facts. This is sufficient reason to drop the task at present, as there is plenty of other urgent work, which, being begun and half completed, cannot be dropped. At some distant future, when more at leisure and better equipped with a more complete information, we hope to be able to deal with the new problem that has been presented to us.

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ACHILLES AND THE TORTOISE.

BY PAUL R. SHIPMAN.

Zeno's famous argument against the possibility of motion has given the logicians a good deal of trouble. Archbishop Whately, one of the most sagacious of them, is severe on Aldrich for supposing that he exposed the fallacy by showing the impossibility of the conclusion as a fact, yet the Archbishop himself does less than this, saying, indeed, that an attempt to exhibit the pretended demonstration in the syllogistic form will "evince the utter want of connexion between the premises and the conclusion," but, unfortunately, omitting any attempt to exhibit it in that form. Sir William Hamilton thinks, as Brown thought, that the argument of Zeno is unanswerable; while John Stuart Mill, who not unpardonably smiles at Hamilton for thinking thus, undertakes to put his finger on the fallacy, and, in my opinion, misses it. And so it has gone, from Aristotle to Bain; and the end is not yet.

The argument is thus stated by Mill: "If Achilles starts a thousand yards behind the tortoise, and runs a hundred times as fast, still, while Achilles runs those thousand yards, the tortoise will have got on ten; while Achilles runs those ten, the tortoise will have run a tenth of a yard; and, as this process may be continued to infinity, Achilles will never overtake the tortoise." Of which Mill, following up the intimation of Hobbes, offers this refutation: "It assumes, of course, the infinite divisibility of space. But we have no need to entangle ourselves in the metaphysical discussion whether this assumption is warrantable. Let it be granted or not, the argument always remains a fallacy. For it assumes that to pass through an infinitely divisible space requires an infinite time. But the infinite divisibility of space means the infinite divisibility of *finite* space; and it is only infinite space which cannot be passed over in less than infinite time. What the argument proves is that to pass over infinitely divisible space requires an infinitely divisible time; but an infinitely divisible time may itself be finite; the smallest finite time is infinitely divisible; the argument, therefore, is consistent with the tortoise's being overtaken in the smallest finite time. It is a sophism of the type *Ignoratio Elenchi*, or, as Archbishop Whately terms it, Irrelevant Conclusion; an argument which proves a different proposition from that which it pretends to prove, the difference of meaning being disguised by similarity of language." In this solution, it appears to me, there are two flaws.

The argument of Zeno, I think, does not assume, as Mill supposes, that "to pass through an infinitely divisible space requires an infinite time," but that "to pass through an infinitely divisible space" is successively to divide it *ad infinitum*; of which assumption, wherein the fallacy really lies, the former proposition is a consequence. The possible divisions of infinitely divisible space, no matter how minute it may be, are of course infinitely numerous, and, if actualised one after another, would of course require infinite time; and the vice of Zeno's argument consists in assuming that they are so actualised in motion. This assumption the logicians seem to have overlooked.

Mill, in closing his statement of the argument, it should be noted, refers to the progressive subdivision of the distance as a process that "may be continued to infinity." This process, be it observed, is not *divisibility*, which is a potentiality in lieu of a process, but *division*—division such as is expressed in the terms of the argument—division actual and determinate. That Achilles does not execute such division, and the tortoise cannot, is of course nothing against this construction, as the argument, materially, is absurd throughout, the very proposition it is employed to prove being a contradiction. What is to the purpose, however, and what should be taken as decisive, is that if the argument does not contemplate this division it does not contemplate any division, and, consequently, proceeds without a process at all; which is contrary to its express terms, as well as to reason. Furthermore, if Mill is correct in representing the argument as assuming bluntly that to pass through a finite space requires an infinite time, Zeno stands convicted of the asinine procedure of openly begging his own question; but the father of dialecticians, whatever he may have been, was not an ass. The accepted construction of his argument is inadmissible. The process, then, is none other than divisibility actualised—actual division, which he confounds, consciously or unconsciously, with mere divisibility. And would not the continuation of this process or of any other to infinity require

infinite time? And does not the whole argument hinge, all but obtrusively, on the assumption that motion involves this selfsame continuation? It appears strange that Mill, in using the suggestive words above-cited, should not only not have perceived that the fallacy lies in this assumption, instead of in the proposition flowing from it, but have failed to perceive even the assumption.

"It is only infinite space which cannot be passed over in less than infinite time," he says. That is the question, as Zeno would have been swift to answer. It depends, speaking dialectically, on the route traversed, and the mode of traversing it. If finite space is passed over by way of the infinitesimals at the bottom of it, and by means of reducing it to these through an infinite series of actual divisions, the minutest part of space, obviously, cannot be passed over in less than infinite time; and the argument assumes that space is passed over by this identical process. In this assumption, I repeat, lies the fallacy, and not in the inference (legitimately drawn from it) that "to pass through an infinitely divisible space requires an infinite time." In other words, the fallacy lies not, as Hobbes hinted, and as Mill insists, in confounding the infinitely divisible with the infinitely extended, but in confounding the infinitely divisible with the infinitely divided, and in capping this confusion with the assumption that to move is infinitely to divide *seriatim*—in confounding potential division with actual division serially, and assuming that whatever moves performs this actual division to infinity; from which jumble of affirmations, presenting "confusion worse confounded," it follows of necessity, maugre the coil, that to pass over the smallest space requires infinite time.

"An infinitely divisible time may itself be finite," says Mill. True: but the time required to convert infinite divisibility into an infinite succession of actual divisions is infinite; and the argument assumes that such conversion, as respects both time and space, takes place in motion. "An unlimited number of subdivisions may be made of that which is itself limited," Mill has said in another notice of this fallacy. True, again: but actually to make them requires unlimited duration; and the argument assumes that in motion they are actually made. Manifestly, if passing over a given space is infinitely subdividing it, the passage cannot be made in less than infinite time.

The distinction between an assumption and an inference from one is nice, but real, and exacts observance under penalty of thinking falsely; for nice distinctions, unlike "nice customs," do not "curt'sy to great kings." Had Mill's refutation been proposed to Zeno, the inventor of dialectics might have replied: "What you call an assumption is not an assumption, but the conclusion regularly deduced from my premises, both of which have escaped your analysis, and neither of which have you denied. Besides, your major premise is simply a denial of my conclusion. Whether or not finite space can be passed over in less than infinite time is the question; and *you beg it*. Your imagined refutation, consequently, leaves my argument not merely unscathed, but untouched; nay, your refutation is itself a transparent fallacy." And the reply, I conceive, would have been triumphant. Mill's refutation is in fact exposed to precisely the same sort of criticism that Whately visits on the refutation of Aldrich; it does not unearth the fallacy. It only flounders amid the bewildering absurdity of the conclusion.

As Mill fails to detect the seat of the fallacy, one can hardly be surprised that he mistakes the nature of it. "What the argument proves," he says, "is that to pass over infinitely divisible space requires an infinitely divisible time," adding: "It is a sophism of the type *Ignoratio Elenchi*, or, as Archbishop Whately terms it, Irrelevant Conclusion." The argument, as postulating first of all the infinite divisibility of matter, *implies* that "to pass over infinitely divisible space requires infinitely divisible time," but does not *prove* it; so far from proving even an irrelevant conclusion, it proves nothing, for the reason that one of the premises is false. The argument is materially incorrect.

Exhibited in its full development, and in the typical form, it stands thus:

Whatever is infinitely repeated calls for infinite time;

To pass over any assignable space is infinitely to repeat the division of it:

Therefore, to pass over any assignable space calls for infinite time, and not only will Achilles never overtake the tortoise, but neither Achilles nor the tortoise can stir, motion being impossible in less than infinite time.

The argument is formally correct; the conclusion follows necessarily from the premises. The fallacy, such being the case, is not formal at all. It is exralogical, strictly interpreting the sphere of logic. The minor premise, though formally correct, is materially false, assuming that a body in moving from one position to another actualises consecutively the infinite divisibility of the distance, which is to assume that a body in moving does not move; in short, the premise substitutes for the simple idea of motion as change of place a self-contradictory figment, corresponding to no objective reality, and incapable of mental representation. The conclusion is not irrelevant, but absurd; and is absurd only because the minor premise is. That premise interprets motion as consisting in repeating infinitely the division of finite space; but, since division without repetition presupposes motion, this definition of motion implies that motion exists independ-

ently of itself. Hence, the definition is a contradiction, and the premise collapses. It is not motion, as Sir William Hamilton fancied, that involves a contradiction, but Zeno's arbitrary definition of it.

The fallacy, accordingly, is purely material, and, as such, resolves itself into a question of fact, in which the fallacious premise, we have seen, taking motion to be the infinite subdivision of finite space, contradicts itself, as well as the acknowledged evidence of consciousness in the simplest and most direct form—the form wherein the authority of consciousness is received as definitive by every sane mind; so that after all the refutation of Diogenes the Cynic, when he got up and walked before the eyes of Zeno, left nothing to be desired, except a technical analysis, which those who sneer at his disdainful omission of it have not supplied. Diogenes, like Dr. Johnson in the case of Berkeley's argument against matter, exploded the conclusion, though he did not stay to track it back to its source in the premises; the Cynic, like Ursa Major, contemptuously left that to the professional logicians. But whoever would refute Berkeley or Zeno, and imagines he can dispense, in the one case with the *argumentum baculinum*, or in the other with the *argumentum ambulatum*, will presently find he has reckond without his host. In both cases the indefeasible reality controls the situation.

The truth is, when all is said and done, (and this, too, the logicians seem to have overlooked,) the answer to Zeno is substantially an affair of common sense. The trouble is, in place of unravelling formal subtleties, to disentangle the fact from the figment asserted in the minor premise; and that has to be done outside the strict province of logic. But, as already shown, it is easily done. The infinite *divisibility* of the finite is one thing, the infinite *division* of the finite in regular order is another thing; the former is potential infinity, the latter, which Zeno assumes to be the process of motion, and with which he confounds the former, is actual infinity, or would be, were it actual indeed. At the first touch of this distinction the figment in the minor premise falls to nothing. The fact is the *possibility* of division continued to infinity; of which the figment asserts the *actuality*, and calls it motion, whereas it is not actual, and, if it were, would not be motion. The thing is essentially a piece of dialectical child's play—a logical make-believe. Zeno, as it were, calls out to his pupils: "Come, let us play *Something is Nothing*—I will say 'Motion is not motion,' and you say 'Behold, there is no motion.'" "With all our hearts," they gayly respond. And thereupon we have, cunningly feigned, the Achillean paradox, which, to the reproach of the human mind, has puzzled seventy generations of experts. Certainly, Zeno as a logical prestidigitator is an incomparable success.

The argument, then, is faultless in form, but void of substance, the only objection to it being that there is nothing in it. It begins and ends in zero. The fallacy is not, therefore, as Mill would have it, a "logical quadruped," the most frequent of formal fallacies, but what might be called not unaptly a *logical ghost*; for, logically, as I have said, the argument is perfect—that is to say, perfect in logical form. It is a phantom of reason—a dialectical apparition. The mill is all right, to change the metaphor; if the grist is not, it is because cockle instead of wheat has been put into the hopper.

But all this, if just, it may be said, is paying inordinate attention to a trifle; which I will not gainsay, though the long line of illustrious thinkers who have deemed the sophism not beneath their serious notice might suggest a mitigation of this view. The paradox, as it has been called not too accurately, is something of a puzzle, without doubt; yet how it has come to nonplus so many of the first logicians of every age may well seem to plain people a greater one.

KARMA.

A TALE WITH A MORAL.

PANDU, a wealthy jeweller of the Brahman caste, was travelling with a servant in a carriage on some lucrative business to Vârânasî,[1] and overtaking on his way a monk of venerable appearance who was walking in the same direction, he thought to himself: "This shramana[2] looks noble and saintly. Companionship with good men brings luck; should he also be going to Vârânasî, I will invite him to ride with me in my carriage." Having saluted the shramana he told him whither he was driving and at what inn he intended to stay in Vârânasî. Learning that the shramana, whose name was Nârada, also was travelling to Vârânasî, he asked him to accept a seat in his carriage. "I am obliged to you for your kindness," said the shramana to the Brahman, for I am quite worn out by the long journey. Having no possessions in this world, I cannot repay you in money; but it may happen that I can reward you with some spiritual treasure out of the wealth of the information I have received while following Shâkyamuni, the Blessed One, the Great Buddha, the Teacher of mankind."

Both travelled together in the carriage and Pandu listened with pleasure to the instructive discourse of Nârada. After about an hour's journey, they came to a place where the road had become almost impassable by a washout caused by a recent rain, and a farmer's cart with a broken wheel prevented further progress. Dêvala, the owner of the cart, was on his way to Vâ-

1 *Vârânasi*, Sanskrit (*Bârânasî*, Pâli), Benares.

2 Shramana, a Buddhist monk.

rânasî to sell his rice, and was anxious to reach the town before the dawn of the next morning. If he was delayed a day or two longer, the rice merchants might have left town or bought all the stock they needed.

When the jeweller saw that he could not proceed on his way unless the farmer's cart was removed, he began to grow angry and ordered Mahâduta, his slave, to push the cart aside, so that his carriage could pass by. The farmer remonstrated because it being so near the slope of the road, it would jeopardise his cargo; but the Brahman would not listen to the farmer and bade his servant overturn the rice cart and push it aside. Mahâduta, an unusually strong man who seemed to take delight in the injury of others, obeyed before the shramana could interfere. When Pandu was about to continue his travel the shramana jumped out of the carriage and said: "Excuse me, sir, for leaving you here. I am under obligations for your kindness in giving me an hour's ride in your carriage. I was tired when you picked me up on the road, but now thanks to your courtesy, I am rested, and recognising in this farmer an incarnation of one of your ancestors I cannot repay your kindness better than by assisting him in his troubles."

The Brahman looked at the shramana in amazement: "That farmer, you say, is an incarnation of one of my ancestors? That is impossible."

"I know," replied the shramana, "that you are not aware of the numerous important relations which tie your fate to that of the farmer. But the blind man cannot be expected to see; so I regret that you do harm to yourself and I shall try to protect you against the wounds which you are about to inflict upon yourself."

The wealthy merchant was not accustomed to be reprimanded, and feeling that the words of the shramana, although uttered with great kindness, contained a stinging reproach, bade his servant drive on without further delay.

The shramana saluted Dêvala, the farmer, and began to help him repair his cart and load up the rice, part of which had been thrown out. The work proceeded quickly and Dêvala thought: "This shramana must be a holy man; invisible devas seem to assist him. I will ask him how I deserved the ill treatment at the hands of the proud Brahman." And he said: "Venerable sir, can you tell me why I suffer an injustice from a man to whom I have never done any harm?" And the shramana said: "My dear friend, you do not suffer an injustice, but only receive in your present state of existence the same treatment which you visited upon the jeweller in a former life, and if I am not mistaken in reading the thoughts of your mind, I should say that you would, even to-day, have done the same unto the jeweller if he had been in your place, and if you had had such a strong slave at your command as he has, able to deal with you at his pleasure."

The farmer confessed that if he had had the power, he would have felt little compunction in treating another man who had happened to impede his way as he had been treated by the Brahman, but thinking of the retribution attendant upon unkind deeds, he resolved to be more considerate in the future with his fellow-beings.

The rice was loaded and both travelled on to Vârânasî, when all of a sudden the horse jumped aside. "A snake, a snake!" shouted the farmer. But the shramana looked closely at the object at which the horse shuddered, jumped out of the cart and saw that it was a purse full of gold, and the idea struck him: "No one else but the wealthy jeweller can have lost this purse." He took the purse and handing it to the farmer said: "Take this purse and when you come to Vârânasî drive up to the inn which I shall point out to you; ask for Pandu, the Brahman, and deliver the purse. He will excuse himself for the rudeness with which he treated you, but tell him that you have forgiven him and wish him success in all his undertakings. For, let me tell you, the more successful he is, the better you will prosper; your fate depends in many respects upon his fate. Should the jeweller demand any explanation, send him to the vihâra where he shall find me ready to assist him with advice in case he may feel the need of it."

Pandu in the meantime arrived at Vârânasî and met Mallika, his business-friend, a rich banker. "I am a ruined man," said Mallika, "and can do no business with you, unless I can buy a cart of the best rice for the king's table. There is a rival banker in Vârânasî who learning that I had made a contract with the royal treasurer to deliver the rice to-morrow morning, and being desirous to bring about my destruction, has bought up all the rice in Vârânasî. The royal treasurer must have received a bribe, for he will not release me from my contract and to-morrow I shall be a ruined man unless Krishna will send an angel from heaven to help me."

While Mallika was still lamenting the poverty to which his rival would reduce him, Pandu missed his purse. Searching his carriage without being able to find it, he suspected his slave Mahâduta; and calling the police accused him of theft, and had him bound and cruelly tortured to extort a confession. The slave in his agonies cried: "I am innocent, let me go, for I cannot stand this pain; I am quite innocent at least of this crime, and suffer now for other sins. O, that I could beg the farmer's pardon whom, for the sake of my master, I wronged without any cause! This torture, I believe, is a punishment for my rudeness."

While the police officer was still applying the lash

to the back of the slave, the farmer arrived at the inn, and, to the great astonishment of all concerned, delivered the purse. The slave was at once released from the hands of his torturer. But being dissatisfied with his master, he secretly left and joined a band of robbers in the mountains, who made him their chief on account of his great strength and courage. When Mallika heard that the farmer had the best rice to sell, fit for delivery to the royal table, he bought at once the whole car-load for treble the price that the farmer had ever received, and Pandu, glad at heart to have his money restored, hastened at once to the vihâra to receive further explanations from Nârada, the shramana.

Nârada said: "I might give thee an explanation, but knowing that thou art unable to understand a spiritual truth, I prefer to remain silent. However, I shall give thee some advice: Treat every man whom thou meetest as thy own self; serve him as thou wouldst demand to be served thyself; for thus thou shalt sow a sowing of good deeds, the rich harvest of which thou wilt not fail to reap."

"Give me, O shramana, the explanation," said the jeweller, "and I shall thereby be better able to follow your advice."

The shramana said: "Listen then, I will give you the key to the mystery. If you do not understand it, have faith in what I say. Self is an illusion, and he whose mind is bent upon following self, follows an *ignis fatuus* which leads him into the quagmire of sin. The illusion of self is the veil of Mâyâ that blinds your eyes and prevents you from recognising the close relations that obtain between yourself and your fellows, and from tracing the identity of your self in the souls of other beings. Ignorance is the source of sin. There are few who know the truth. Let this motto be your talisman:

'He who hurts others injures himself.

'He who helps others advances his own interests.

'Let the delusion of self disappear from your mind. And you will naturally walk in the path of truth.

'To him whose vision is dimmed by the veil of Mâyâ, the spiritual world appears to be cut up into innumerable selves. Thus he will be puzzled in many ways concerning the transmigration of soul-life, and will be incapable of understanding the import of an all-comprehensive kindness toward all living beings.'"

The jeweller replied: "Your words, O venerable sir, have a deep significance and I shall bear them in mind. I extended a small kindness which caused me no expense whatever to a poor shramana on my way to Vârânasî, and lo! how propitious has been the result! I am deeply in your debt, for without you I should not only have lost my purse, but would have been prevented from doing business in Vârânasî which greatly increased my wealth, while if it had been left undone it might have reduced me to a state of wretched poverty. In addition, your thoughtfulness and the arrival of the farmer's rice-cart preserved the prosperity of my friend Mallika, the banker. If all men saw the truth of your maxims, how much better the world would be, how greatly evils would be lessened, and public welfare enhanced! As I am anxious to let the truth of Buddha be understood, I shall found a vihâra at my native place, Kaushambî, and invite you to visit me so that I may dedicate the place to the brotherhood of Buddha's disciples."

Years passed on and Pandu's vihâra at Kaushambî became a place in which wise shramanas used to stay and it was renowned as a centre of enlightenment for the people of the town.

At that time the king of a neighboring country had heard of the beauty of Pandu's jewelry, and he sent his treasurer to order a royal diadem wrought in pure gold and set with the most precious stones of India. When Pandu had finished the work, he started for the residence of the king, and, as he expected to transact other profitable business, took with him a great store of gold pieces. The caravan carrying his goods was protected by a strong escort of armed men, but when they reached the mountains they were attacked by a band of robbers lead by Mahâduta, who beat them and took away all the jewelry and the gold, and Pandu escaped with great difficulty. This misfortune was a blow to Pandu's prosperity, and as he suffered some other severe losses, his wealth was much reduced.

Pandu was much distressed, but he bore his misfortunes without complaint, thinking to himself: "I have deserved these losses for the sins committed in my past existence. In my younger years I was very hard on other people; when I now reap the harvest of my evil deeds I have no cause for complaint." As he had grown in kindliness toward all beings, his misfortunes only served to purify his heart; and his chief regret, when thinking of his reduced means, was that he had become unable to do good and to help his friends in the vihâra to spread the truths of religion.

Again years passed on and it happened that Panthaka, a young shramana and a disciple of Nârada, was travelling through the mountains of Kaushambî, and he fell among the robbers in the mountains. As he had nothing in his possession, the robber-chief beat him severely and let him go. On the next morning Panthaka, while pursuing his way through the woods, heard a noise as of quarrelling and fighting men, and going to the place he saw a number of robbers, all of them in a great rage, and in their midst stood Mahâduta, their chief; and the chief was desperately fighting them, like a lion surrounded by hounds, and he slew several of his aggressors with formidable blows,

but there were too many against one! at last he succumbed and fell to the ground as if dead, covered with fatal wounds. As soon as the robbers had left the place the young shramana approached to see whether he could be of any assistance to the wounded men. He found that all the robbers were dead, and there was only a little life left in the chief. He at once went down to the little brooklet which was murmuring near by, fetched fresh water in his bowl and brought it to the dying man. Mahâduta opened his eyes and, gnashing his teeth, said: "Where are those ungrateful dogs whom I have led to victory and success? Without me as their chief they will soon perish like jackals hunted down by skilful hunters."

"Do not think of your comrades, the companions of your sinful life," said Panthaka, "but think of your soul and accept in the last moment the chance of salvation that is offered you. Here is water to drink, and let me dress your wounds; perhaps I may save your life."

"Alas! alas!" replied Mahâduta, are you not the man whom I beat but yesterday and now you come to my assistance, to assuage my pain? You bring me fresh water to quench my thirst, and try to save my life! It is useless, honorable sir, I am a doomed man. The churls have wounded me unto death—the ungrateful cowards! They have dealt me the blows which I taught them."

"You reap what you have sown;" continued the shramana, "had you taught your comrades acts of kindness, you would have received from them acts of kindness, but having taught them the lesson of slaughter, it is but your own deed that you are slain by their hands."

"True, very true," said the robber chief, my fate is well deserved; but how sad is my lot, that I must reap the full harvest of all my evil deeds in future existences! Advise me, O holy sir, what I can do to lighten the sins of my life which oppress me like a great rock placed upon my breast, taking away the breath of my lungs."

Said Panthaka: "Root out your sinful desires; destroy all evil passions, and fill your soul with kindness toward all your fellow beings."

The robber chief said: "I have done much evil and no good. How can I extricate myself from the net of sorrow which I have woven out of the evil desires of my own heart? My Karma will lead me to hell and I shall never be able to walk on the path of salvation."

Said the shramana: "Indeed your Karma will in its future incarnations reap the seeds of evil that you have sown. There is no escape for an evil doer from the consequences of his own actions. But there is no cause for despair. The man who is converted and has rooted out the illusion of self with all its lusts and sinful desires will be a source of blessing to himself and others.

"As an illustration I will tell you the story of the great robber Kandata who died without repentance and was reborn as a demon in hell where he suffered for his evil deeds the most terrible agonies and pains. He had been in hell several kalpas and was unable to rise out of his wretched condition when Buddha appeared upon earth and attained to the blessed state of enlightenment. At that memorable moment a ray of light fell down into hell quickening all the demons with life and hope, and the robber Kandata cried aloud: 'O blessed Buddha, have mercy upon me! I suffer greatly and although I have done evil, I am anxious to walk in the noble path of righteousness. But I cannot extricate myself from the net of sorrow. Help me, O Lord; have mercy on me!' Now it is the law of Karma that evil deeds lead to destruction, for absolute evil is so bad that it cannot exist. Absolute evil involves impossibility of existence. But good deeds lead to life. Thus there is a final end of every deed that is done, but there is no end in the development of good deeds. The least act of goodness bears fruits containing new seeds of goodness and they continue to grow, they nourish the soul in its weary transmigrations until it reaches the final deliverance from all evil in Nirvâna. When Buddha, the Lord, heard the prayer of the demon suffering in hell, he sent down a spider on a cobweb and the spider said: 'Take hold of the web and climb up.' When the spider had again disappeared out of sight, Kandata made great efforts to climb up and he succeeded. The web was so strong that it held, and he ascended higher and higher. Suddenly he felt the thread trembling and shaking, for behind him other fellow sufferers of his were beginning to climb up. Kandata became frightened. He saw the thinness of the web, and observed that it was elastic, for under the increased weight it stretched out; yet it still seemed strong enough to carry him. Kandata had heretofore only looked up; he now looked down and saw following close upon his heels, also climbing up on the cobweb a numberless mob of the denizens of hell. How can this thin thread bear the weight of all, he thought to himself, and seized with fear he shouted loudly: 'Let go the cobweb. It is mine!' At once the cobweb broke and Kandata fell back into hell.

"The illusion of self was still upon Kandata. He did not know the miraculous power of a sincere longing to rise upwards and enter the noble path of righteousness. It is thin like a cobweb but it will carry millions of people, and the more there are that climb it, the easier will be the efforts of every one of them. But as soon as in a man's heart the idea arises: 'This

is mine; let the bliss of righteousness be mine alone and let no one else partake of it,' the thread breaks, and you fall back into your old condition of selfhood, for selfhood is damnation and truth is bliss. What is hell? It is nothing but egotism, and Nirvâna is a life of righteousness."

"Let me take hold of a spiderweb," said the dying robber chief, when the shramana had finished his story, "and I shall pull myself up out of the depth of hell."

Mahâduta lay for a while quiet to collect his thoughts. Then he continued:

"Listen, honorable sir, I will make a confession: I was the servant of Pandu, the jeweller of Kaushambî, but when he unjustly had me tortured I ran away and became a chief of robbers. Some time ago when I heard through my spies that he was passing through the mountains I succeeded in robbing him of a great part of his wealth. Will you now go to him and tell him that I have forgiven him from the bottom of my heart the injury which he has unjustly inflicted upon me, and ask him, too, to pardon me for having robbed him. While I stayed with him his heart was as hard as stone, and I learned to imitate the selfishness of his character. I have heard that he has become benevolent and is now pointed out as an example of goodness and justice. I do not wish to remain in his debt. Therefore inform him that I have kept the gold crown, which he wrought for the king, and all his treasures, and have hidden them in a cave near by. There were only two of the robbers under my command who knew of it, and both are now dead. Let Pandu take a number of armed men and come to the place and take back the property of which I have deprived him."

Then Mahâduta described the situation of the cave and died in the arms of Panthaka.

As soon as Panthaka, the young shramana, had reached Kaushambî, he went to the jeweller and gave him a full account of his recent adventure in the forest. And Pandu went with an escort of armed men and secured the treasures which the robber-chief had concealed in the cave; and they buried the robber-chief and his slain comrades with all honors, and Panthaka spoke at the grave, discoursing on the words of Buddha:

"By one's self evil is done; by one's self one suffers.

"By one's self evil is left undone; by one's self one is purified.

"Purity and impurity belong to one's self; no one can purify another.

"You yourself must make an effort. The Buddhas are only preachers.

"Our karma," the shramana said, "is not the work of Îshvara, or Brahma, or Indra, or of any one of the gods. Our karma is the product of our own actions. My action is the womb that bears me; it is the inheritance which devolves upon me; it is the curse of my misdeeds and the blessing of my righteousness. My action is the resource by which alone I can work out my salvation."

Pandu carried all his treasures back to Kaushambî, and, using with discretion the wealth thus unexpectedly regained, he became richer and more powerful than he had ever been before, and when he was dying at an advanced age he had all his sons and daughters and grandchildren gathered round him and said unto them:

"My dear children, do not blame others for your lack of success. Seek the cause of your ills in yourself. Unless you are blinded by vanity you will find it, and having found it you will see the way out of it. The remedy of your ills, too, lies in yourself. Let never your mental eye be covered by the veil of Mâyâ, and remember the words which have proved a talisman in my life:

"He who hurts others injures himself.

"He who helps others advances his own interests.

"Let the illusion of self disappear.

"And you will naturally walk in the path of truth."

P. C.

APHORISMS.

BY HUDOR GENONE.

It is not so very meritorious for a hen to be anxious about her own brood. But when you hear a hen cackling with joy over an egg laid by her neighbor you may be sure that hen is not far from righteousness.

* * *

If you cannot forgive yourself, even God cannot forgive you.

* * *

But if you cease trying to excuse yourself, and blame yourself and set to redeeming yourself, be sure that God can and will redeem you.

* * *

Conscience is always in executive session with closed doors.

* * *

The spirit of man is free to execute laws already enacted. But in his nominations to action he is bound to act by and with the advice and consent of senatorial reason.

* * *

If you see a man truly godly, never you mind how he got or keeps his godliness.

* * *

Some trees you can tell from the seed; some from

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bark and leaves; but, after all, the best and surest way is by tasting the fruit.

* * *

A little mixture of superstition may be essential to some people's religion, as the pure gold would be of no use as coin without alloy.

* * *

It is unfortunate to be too original going Godward, because few will understand that your face is set that way. And yet it is better if you must be original to keep natural; better to be saved without precedent than damned by example.

* * *

Consistency and obstinacy resemble each other because they are twins, but they are not all alike in their dispositions.

* * *

An obstinate man is one who is firm in the wrong; a firm man one who is obstinate in the right.

* * *

The chemical formulæ for acetic ether and butyric acid are identical; no analysis can tell one from the other. Put the ether to your nose, and the odor says plain as words—"Apples," while the acid will tell you "I am rancid butter."

* * *

Dominie Hopewell always looked on the sunny side of things. One of his parishioners having been accused of throwing potatoes at his aged mother, he said, "Well, that was wrong, of course, but perhaps after all the potatoes were very mealy."

* * *

I have no sympathy with that class of mind which dogmatises about the Unknown. If a man tells me there is a Flapdoodle, I never reply, There is no Flapdoodle. How do I know there may not be one? The Universe is a big place.

Still I should like to know what a Flapdoodle is.

* * *

As the toiling plant produces the idling flower, so labor is mother to leisure.

* * *

Always pay for goods or services. Gratuitous benefactions are inevitably in the end the most expensive.

* * *

In a multitude of counsellors there is safety; but with many masters is great peril.

* * *

I should like to reduce the sects to a common denominator; for in that way only can they be added one to another in brotherly love.

* * *

If you see any one in a field culling leeks and rue when he might be plucking lilies and roses, you say there is something wrong with his taste.

So it is in life. It is the field of trial and test of taste. Good and evil, Heaven and Hell are matters of taste. You have the things to choose, and choice is free. Shall it be leeks or lilies, rue or roses?

TO A STAR.

BY J. ARTHUR EDGERTON.

Star, that gleamest through the night, shore within the spatial sea;
Star, that burnest on my soul what I am, what would be;
Island in the far-off space;
Cradle of some happy race;
I would reach thee. Something in me yearneth unto thee.

Planet, on thy sister world, glowing with thee round the sun,
I am but an insect living for a day and am done;
Yet I feel in me a soul,
Striving to thee as a goal;
Striving to all things of beauty—to the central ONE.

We see darkly; grope in feeling to a truth we cannot see;
We strive upward and yearn blindly, as my soul unto thee;
We strive upward through the night,
Upward to a little light,
Yearning to the higher, better—in Infinity.

NOTES.

Mr. Theodore Stanton has been engaged in Paris during the last year in preparing a series of lectures on the Third French Republic, which are to be delivered before the Wisconsin State University. While in Madison, Mr. Stanton will be the guest of President Adams.

Dr. Wilhelm Meyer, the Berlin astronomer, is publishing in *Himmel und Erde* a series of lectures, the data of which he collected during his sojourn here last year, on some of the striking physiographical features of our country. Their title is *Das Wunderland der neuen Welt*. The lectures were delivered before the *Urania Society* of Berlin, and are presented in the form of itinerary sketches. They close with the August number of *Himmel und Erde*. (Berlin: H. Paetel.)

The Report of the Celebration of the Sixtieth Birthday of Prof. Ernst Haeckel, February 17, 1894, recently published, contains a beautiful photogravure of the marble bust of Haeckel presented on this occasion and now permanently stationed in the Jena Zoölogical Institute. For persons who would wish to see more of the charming personality of Professor Haeckel than can be got from his purely scientific works, this report containing the addresses of the friends, pupils, and colleagues of Professor Haeckel, with his replies, will be indispensable and full of interest.

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AN OPEN LETTER TO THE EDITOR OF THE OPEN COURT.

BY C. H. REEVE.

Your efforts to establish the fact of the existence of a human *soul*, and that it is immortal, have been observed by me with a good deal of interest and care; keeping myself free from the influence of any pre-conceived ideas or opinions on the subject, as far as that is possible, and making a sincere effort to find the elements and evidences of truth. (Mr. Genone's introduction to his article on "Spook Mice," discussing "beliefs," comes in point here; and I wonder if he would say that one *can* free himself from the influence of preconceptions taken for beliefs, or would claim that he cannot.)

As I understand you, while the physical organism is dissolved,—disappears,—its constituents going back through natural processes to the original elements composing it,—combined in other forms and existing in new conditions,—the intelligence it has developed and the individuality that intelligence has created, continue to exist; and become a part of the factors making up that part of the universe which belong to and with the earth and the outgrowths of the earth, one of which is humanity with its animisms and spiritisms. That is, our individuality is impressed upon our time and generation, and as a factor helps to form and develop the growing individuality of others; we live in those who come after and so continue to live, being thus immortal.

I have not been able to learn that you claim that we retain and have individual consciousness and can recognise those we have known in life. It has seemed to me as if you evaded that question, or desired to avoid it, and so far only assert that we continue to live in the future as having been part of the past. There could be no future only as the past creates it. Or better say, perhaps, the ever-present created by the past makes the present of those to come future as to us. That our existence now develops an individuality which will become a part of that future, as the past has become a part of us, and thus we become immortal. That individuality is the soul. It is the outgrowth of our mentality as developed in the physical organism. The latter is annihilated as an organism, and the soul lives on among the factors creating the future.

I may be a long way from a true conception of your position, and it is hard to define; but this is the substance of your philosophy, as I understand it. Hence, the individual in the future can clasp hands with the individual of the past with whom he may be in sympathy, as we do with Shakespeare, or Plato, or Aristotle, or Homer, whose souls are a part of us.

This you call religion, the religion of science (as relating to soul), teaching that the higher and more perfect the individuality, the more spiritual and perfect the soul. That this is what Christ called "the kingdom of heaven," and said to his disciples, "it is within you."

It is this philosophy, I understand, that Dr. Robert Lewins attacks. I have found its reconciliation with the ideas of a God (in any form or embodiment), a soul, a future existence in any way, very difficult; and as yet I am not able to form any connexion between the ideas of God, soul, and immortality, and this theory.

If we take this view, when we start out in search of the truth we are handicapped by the immortality of the souls that have preceded us. (We are, of course, burthened by the *conditions* made by our predecessors, but that is not the idea of a soul.) More or less they constitute a part of us, and only as our own peculiarities drive or permit us to think and act in directions other than they did, do we make progress toward a higher spirituality, or, drift towards a lower level. A thought once lodged in the mind grows, generating new thoughts. In this, Plato lives in us; and fertilised by new facts, Plato's thoughts in us, with new impressions and thoughts coming to us, in time develops into science.

To make myself understood, we are, first, a physical organism merely. The character of that organism is dependent on parentage and the environments of the parents after conception until birth, and that again is made up of the outgrowths in the shape of immortal souls that have once come from former organisms and created the conditions that made up the organisms—physical and mental—and the environments of our parents; these parents gave birth to our organisms,

the mental within and a part of the physical. Thereafter, environment makes impressions on the physio-mental organism, and in time comes knowledge and consciousness. With these come impulses and opinions. Last, impressions and impulses made and prompted by knowledge, induces us to regard the opinions as being sustained by evidence, and the opinions become belief. So weighted we begin the search.

The impressions that *can* be made to create knowledge, consciousness, and impulses, will depend wholly on the character of the physical organism; and the impressions that *will* be made depend on the environments. Out of it all, in the course of time, comes what we call mind. We have a sort of dual existence, a physical and mental, and arising out of both a spiritual. Inseparably intermingled are physical pain and mental suffering, physical enjoyment and mental delights, a sense of life, a longing for more, a fear of death; just in propertion as we are constituted, have knowledge, and can be impressed; a mere animal life or a higher spiritual life; a longing for mere creature comforts, or for something "to satisfy the soul"—as we express it, a higher life.

From the lowest to the highest animal organism each will try to preserve its life and escape death. It has no knowledge of any other life; but with man there is a constant longing for perpetual life, and with that longing has come a belief that he is immortal; and though his body dies here, he will continue to live somewhere as a conscious being. There has come, also, a belief in a Supreme and Infinite Being, to whom man is accountable. Out of it all has come the idea of an immortal soul, which is this conscious being of ours, that is to exist and is immortal.

With the current of years, the acquisition of knowledge, the impulses following impressions, the thoughts, feelings, aspirations, and mental outgrowths of it all in the different individuals, under their differing organisms and environments, has finally come existing conditions, including the physical, mental, intellectual, moral, social, political; and all within them that make up, attend on, and relate to, individual life.

With Dr. Lewins, Mr. Russell, General Trumbull, yourself, and others, we start out to find the truth about this idea of immortality of life and the existence of this soul; each and all longing to live, here or elsewhere, each impressed more or less with the thoughts that have preceded him in others, each possessing such knowledge as has come to him, each limited to a special field of observation and conception, and each moving in the search in such directions as his opinions prompt, and accepting such things as appear to him as truth as evidence, and on that evidence forming—for the time—a belief; and, willy-nilly, that belief prompting and directing further search; opinion and belief changing as more knowledge and more seeming truths come to him.

Science makes what is believed to be a demonstration, and sets a torch in the darkness to guide the searchers. In the next decade science finds the torch is not in the right place and moves it to another place, directed by a new demonstration—as is thought. More or less truth is discovered as to physical forces with each demonstration, but the object of the search still remains the unknown and unknowable. Finally, "the religion of science" is formulated and promulgated to take the place of the religion of faith and uncertainty, and the effort is made to demonstrate it—for without demonstration it is not science. The outcome of the demonstration is that, the organisms in which life is developed and exists, without which it does not and cannot exist, are dissolved—annihilated—cease to exist, and all evidence of continuing life or consciousness disappears and is never heard of again. A living, intelligent, intellectual individuality—soulful if you like—has passed out and as an entity disappeared. It left impressions on those who continue to live, and as to some they make or preserve a record of what it was and what it did, and that record continues to impress living individualities, and will impress others to come and yet unborn; and the impulses created by those impressions so operate as to change those individuals physically and mentally from what they would—otherwise—have been; and thus, the impress the dead made in their time continues to live.

All this is equally true of the most insignificant and unknown, of whom no record is made, as well as of the most illustrious, of whom records are made and preserved, in proportion to their field of action; and the former constitute the great mass. But how does this demonstrate that they still live or have a conscious existence? That there is what we call God, and that we are a part of the All with this God, whatever may be His form, attributes, or essentials. How does it show that there is an entity—or that which may (and must) be thought of as an entity—called a soul, which still lives and can take cognizance of anything? Or, if it cannot take cognizance—individually—how can it be a soul?[1]

Here we are, longing to live. Casting about looking for evidence of immortality for any part, in any form, anywhere, building up within ourselves hope and more or less faith, according to our mentality, nurture, teaching, and environments. Perhaps not over one thousand in one million understand the teachings of science. A large majority are governed in be-

[1] Soul must be at least a conscious energy. Human thought can comprehend nothing without the idea of entity and form. If the recent suggestion that matter and energy are one—energy is matter in motion, and matter energy at rest—has any foundation in fact, it harmonises my assertion with truth. In your book on the soul you give memory form in the cortex of the brain.

lief by the evidence of the five senses only, and an undefined hope and fear the exercise of those senses brings; and every one living is in more or less dread of death, and more or less hope—or desire—of a life hereafter, in spite of any belief or in consonance with one. Can this idea of yours of the soul and its immortality satisfy this longing to live? Can it exert such influence on the animal life and impulses as will give moral direction to the impulses following knowledge—which alone brings moral sense—little or much? (All human life is animal life—all other life being an outgrowth inseparable from it.) Can humanity be made to comprehend it and rest content upon it?

Is it a religion at all? Is it not true that, a religion is based and dependent on a belief in the existence of God? A supreme Being who takes charge of man and makes final disposition of mankind? That, it is the idea each believer in a God has of Him, and his own opinions—prompted by his mentality and knowledge—of his relations to God; of his obligations and duties in life in view of the final disposition that may be made of him by God? And has man any other incentive or motive in having a religion, except a hope of betterment or fear of being made worse in condition in that disposition?

All men recognise good and evil—or benefit and injury. There is thought and action that will better our conditions or make them worse. Any belief that will prompt the former and suppress the latter is a good belief; and the greater the force it will exert in this direction the greater the good and the purer the belief. Is it not true that men are held in check as to evil, or use licence in the direction of evil, in proportion to their belief as to accountability hereafter, and their belief in an overruling power that will finally make recompense according to good or evil? I speak of the common mass of mankind. If so, is this fact not the first and most important thing to be considered when attempting to create a foundation on which all can safely stand to uphold a religion, whether you call it a religion of science, or by any other name?

Is it not true that one cannot control his belief? With your organism and knowledge you must believe as you do, until cut loose by some new knowledge—however obtained. With other knowledge or more knowledge your belief would vary. So of other mentalities. Suppose, with mine I cannot conceive of a God or find any evidence to found a belief in one on; can I conceive of a soul or its immortality? With more or less, or other knowledge I could not believe as I do now, and perforce would have some other belief.

Jesus Christ started out to reform the religious belief of his Jewish brethren. Setting aside whatever claims he made for himself, his doctrine was simple in the extreme, and devoid of superstitions or the supernatural. So with the teachings of Paul. The whole doctrine of reformation was in a nutshell. What should be accounted to a man for righteousness was so simple a child could understand it. What should be counted to the Jews for righteousness was more complicated, and requires some knowledge of Jewish laws and customs of the time, to fully understand; but throughout, Christ kept his disciples separate from the rest of mankind, and many lessons to them were not addressed to or intended for the rest of the people. He came to the Jews only; and forbade his disciples, when he sent them out, to go in any way of the Gentiles or into any city of Samaria (an ostracised people), but only to the lost sheep of the house of Israel.

According to Matthew, the apostles were to make disciples of all nations. To Mark, to preach the Gospel to every creature (or the whole creation, per the New Version). To Luke, repentance and remission of sins should be preached to all nations, beginning at Jerusalem. All things written in the Law of Moses, the Prophets, and Psalms, concerning him, must be fulfilled. Sin was non-observance of the Jewish laws.

His mission was to Jews only, and the records must be read with this in view. But his was a scientific religion (not a religion of science), because it was a practical religion, based on existing facts and conditions. A mule could not practise it without being a better mule. It was all summed up in his declaration, "the kingdom of heaven is within you." So it is within every man; and there can be no other kingdom of heaven, and no moral practices higher than those he advocated.

It is wholly immaterial on what a religion or church claims to be founded; there can be no rule to guide a man that is above his comprehension, and there can be no man so simple as to not comprehend Christ's rule, unless he be *non compos.*

On this subject of God and immortality, what reasoning can there be other than the purely deductive, from *assumed* premises, to prove the existence of God, a soul, or immortality? What single *fact* can be taken as a premise, or what induction, is possible? And unless induction and deduction can both be used, what is it but speculation, and of what avail is it to try to enter a domain of the unknowable and incomprehensible to lay a foundation for a "religion of science"?

Interesting it is to talk about it, but is it not speculation only, and like wandering in a fog, searching for something that has not been lost? Your scientific conclusions will be analysed by each reader from his own point of view, as by Dr. Lewins and Mr. Russell, and the ideas of each as to God, soul, and immortality, and religion, will be just what his mentality and knowledge will make intelligible and *harmonious* to

him. What is not harmonious will be rejected. Unlike science, which compels acceptance because there is demonstration, demonstration is impossible, and acceptance depends wholly on harmony of thought.

Belief in a rational personal God, who governs by unchangeable laws, such as we see in the operations of natural force, in the conservation of forces, and the maintenance of equilibrium; and belief in immortal existence, in some conscious form, say what Paul calls "a spiritual body"; and belief that none can attain to that existence except such as live lives of purity here, would be a religion that would tend to check evil impulses and acts and encourage good ones in the majority of men; *per contra*, a belief in the annihilation of those living impure lives—among all who are not highly intellectual and of moral tendencies—which must attend unbelievers in a God, would tend to operate as licence, and they would indulge in vices, believing that "death ends all."

Such a belief is not inconsistent with the idea of a "First Great Cause, least understood," nor in any way degrading as a superstition. Superstition is a necessary attendant on human consciousness, resulting from sensory evidence of Nature's forces and more or less ignorance of their origin and causes, and no one is free from it, in some form. As we are divested of such as we have by the deductions of science, others come in their places. Witchcraft, astrology, spiritism, etc., never had more believers than exist now, and in the midst of the highest civilisation.

It is an incontrovertible fact that mankind at large will have a God if they have to make one of things material. He must be a personal God, must live somewhere, and must have dealings with men in some manner, with power to injure and to benefit. And the God of each will be just such a one as best harmonises with his own ideas, the ideas being the outgrowth of his mentality and environment. If they do not believe in one, they long to, stand in doubt, and more or less fear of one. Even such minds as yours seek a God of some kind, as is evidenced by your searches for soul, immortality, and cause. A few here and there will be exceptions and will be incapable of forming or conceiving of a God; but the great mass must have one. And it will be so, so long as human nature is emotional.

The effort to recognise the operations of natural force in connexion with the existence of any kind of a God, and demonstrating his existence by evidence cognisable by our finite minds, may be a worthy one but will be a lost one all the same. But the influence of a plausible theory in that direction will tend to a higher level among many, to better preservation of social order, and afford anchorage for many who would drift otherwise.

The question really is, whether a religion of science separate from a belief in a personal God is possible. (Winchell, Dawson, and others sought to reconcile science and biblical myths, and orthodoxy, with about as much success as theologians reconcile theology, religion, and Christianity, by a literal rendering of the Scriptures as the word of God through inspired writers.)

Can the minds of the greater number of the peoples be divested of belief in such a God? And if that can be done will not a belief in annihilation take its place and bring with it such licence as will tend to the destruction of social order in all who are not highly intellectual with moral impulses?

THE GOD OF ATHEISM AND THE IMMORTALITY THAT OBTAINS IN THE NEGATION OF THE EGO-ENTITY.

Having just returned home from a vacation trip, I find my hands full of work, and behind a heap of unread manuscripts the sight of a number of valiant knights of thought looms up, all in arms against me. There is Dr. Lewins who, in a private communication and in *The Agnostic Journal*, takes me to task for speaking of immortality and God; there is Professor Cook who in the *Ironclad Age* also protests against the usage of the word God; there is Mr. Thurtell who in *The Agnostic Journal* grumbles at me for not making peace with agnosticism and objects to the expression "We Christians"; and at last Mr. Reeve sends me for my perusal a long letter, very kind and appreciative but critical. Well, I am ready for the fray. Every criticism that is to the point is to my mind a debt which I have to pay, and, as I do not wish to leave my debts unpaid, I propose to settle the bill at once. I shall begin today with Mr. Reeve's criticism which will afford sufficient occasion for a reply to Dr. Lewins and Professor Cook.

* * *

Mr. Reeve, after giving a *résumé* of the psychology of the Religion of Science as editorially propounded in *The Open Court*, says:

> "I am not able to form any connexion between the ideas of God, soul, and immortality, and this theory."

Mr. Reeve correctly understands the proposition that "the soul lives on among the factors creating the future," but fails to see that the ideas soul, God, and immortality have changed their meaning. The old God-conception and the old belief in an ego-soul and its future residence in a Utopian heaven are indeed irreconcilable with our position, which we claim to be a scientific formulation of facts as facts are. We agree with Mr. Reeve that the existence of a God-individual and a soul-entity can only be proved from "assumed premises" and there are no facts that bear

witness in their favor. But while we have always repudiated anthropotheism as obviously erroneous and untenable, we have at the same time endeavored to show that it contains the seed for a nobler and higher God-conception. And in the same way the dualistic assumption of a ghost soul,—according to which the ego-entity, this illusion of the activity of our consciousness, is supposed to be an independent being consisting of some metaphysical or otherwise mysterious substance,—is after all and in spite of its many absurdities a poetic allegory that contains a great truth. For what Mr. Reeve says is true:

> "Perhaps not over one thousand in one million understand the teachings of science."

Allegories are indispensable at a certain stage of the spiritual evolution of man, and he who would reach the masses must speak in parables and proverbs.

Mr. Reeve asks:

> "Can this idea of yours, of the soul and immortality, satisfy our longing to live? . . .
>
> "Is it not true that men are held in check as to evil . . . in proportion to their belief as to accountability hereafter?
>
> "Is it a religion at all? Is it not true that a religion is based and dependent on a belief in the existence of God."

We say, It is true that there cannot be a religion without God, if God means as we define the word the "authority of moral conduct." But our God—our authority of moral conduct—is as much higher than any God-individual, as the Truth is higher than any individual thinker, even he who diligently searches for the truth and having found some important parcels of it preaches the truth. But he whose God is a great Truth-fabricator, whose God is a demiurge, making universes as a watchmaker makes watches, a big world-monarch and universal autocrat, is under the illusion of a gross superstition. The denial of a demiurge, however, is not a denial of the authority of moral conduct.

The key to Mr. Reeve's miscomprehension is found in the footnote on page 4224, where he says:

> "Soul must be at least a conscious energy. Human thought can comprehend nothing without the idea of entity and form."

Soul, like matter, is an abstract, denoting certain facts of reality, and there are, indeed, things which are neither energy, nor matter, nor form. Take the *meaning* of the word "logic." Is it matter? No! Is it energy? No! Is it form? No! The word when uttered presupposes material organs which cause a very specific kind of air-vibration. The utterance consumes a certain amount of energy, and the pronounced word consists in a peculiar kind of air vibrations. But an analysis of matter, energy, and form will show no trace of the meaning of the word. The meaning of a word is its soul.

What is this meaning of words? Is it a non-entity because it is not a concrete and material thing? Is it a mere shadow and an illusion? Is it a ghost made of that airy nothing of which dreams are built? This apparent nothing, this seeming *fata morgana* and *ignis fatuus*, the significance of language, is the most important reality in the whole universe. It is the light of the world, the guide to truth, and the saviour from the evils of sin and ignorance.

While we deny that the meaning of words is either a substance, or an entity, or an energy, conscious or unconscious, we insist on its being the most momentous and most potent reality in the world.

Words and combinations of words are very simple things: they are certain sound-forms denoting objects or qualities of objects, or sentiments, or aspirations to accomplish this or that plan, or ideas, fancies, and hopes. But if you consider the life that is in them, if you weigh in your mind what they accomplish and what potent things they are, you will be inclined to attribute to them very mysterious qualities. Words have meanings because there is an objective world to which they refer, otherwise they would be as sounding brass or tinkling cymbal; and words possess an individuality and an immortality as much so as a human soul. As much so, for indeed a human soul is woven of the same airy nothingness—or, let me rather say, apparent nothingness,—of the same immateriality as the meaning of words. The human soul is as little mysterious and just as wonderful as words; in truth, language is a part of the human soul, and certainly it forms not the least important of its departments.

A sentence is spoken and disappears like an air-bubble that bursts, but the meaning of the sentence remains. The sound of the sentence is written upon the folds of the brain of a man and there it stays as a living memory, ready for revival whenever wanted and conveying a definite information concerning some particular part of the objective world of facts that surrounds us. The man who uttered the sentence dies and the man who heard it dies too; but if it be of any consequence, it has been repeated and perhaps written down; it will be embodied in books, and it lives in many thousand brains the immortal spirit-life of souls.

Words have souls, and books have souls, and books, indeed, contain the most valuable essence of human souls. Hear what Milton says in his brave defence of the liberty of the Press made in his "Areopagitica" concerning the life and immortality of books:

> "As good almost kill a man as kill a good book: who kills a man, kills a reasonable creature, God's image; but he who destroys a good book, kills reason itself, kills the image of God, as it were, in the eye. Many a man lives a burthen to the earth; but a good book is the precious life blood of a master-spirit, embalmed and treasured up on purpose to a life beyond life. It is true no age can restore a life whereof, perhaps, there is no great loss; and revolutions of ages do not oft recover the loss of a rejected truth, for want of which whole nations fare worse. We

should be wary, therefore, what persecution we raise against the living labors of public men;—how we spill that seasoned life of man, preserved and stored up in books; since we see a kind of homicide may be thus committed, sometimes a martyrdom; and, if it extend to the whole impression, a kind of massacre, whereof the execution ends not in the slaying of an elemental life, but strikes at the ethereal and fifth essence, the breath of reason itself, —*slays an immortality rather than a life.*"

Dr. Lewins sends us No. 360 of *The Open Court* with his marginal notes. He comments on the passage "we cannot accept Dr. Lewins's conclusion of the annihilation of the soul in death":

"It is true all the same."

He adds in another place:

"Dr. Carus and his journal are only half-hearted monists."

As to funerals "Dr. Lewins would advise that silence should prevail at a grave, open or closed," (this serves as a note to page 4157, first column, last paragraph but one,) and he sums up his opinion of the whole article on immortality as follows:

"A fine study, yet illusory. The finest things can always be said on the wrong side."

Dr. Lewins protests against our view of immortality; because he argues like a materialist. To him that apparent nothingness, the soul of a word, is a non-entity, to us it is of paramount importance. Dr. Lewins would say that if a copy of a book were burned before our eyes that the book is utterly destroyed. We would say, one copy of the book is gone, but the book itself, the soul of the book, that which is the most important part of the book, is not gone. It can be resurrected in new editions of the book.

Suppose that a tyrant in Sicily had collected all the manuscripts of the Pythagorean theorem and had ordered them to be burnt, or that he had burned Pythagoras too, at the stake, would he thereby have destroyed the theorem itself? He would have hindered its propagation for a long time; but sword and fire can as little touch an idea as a chemist can by a chemical analysis of paper and ink distill the ideas out of a book in his crucible. Ideas that are true are immortal and man's aspiration must be to build his soul up of truth.

This view of the soul is unorthodox if orthodoxy depends upon the assent of the dogmatologists of the Church; but they are more orthodox than one is inclined to believe, if we regard the Bible as the standard of orthodoxy.

Man's essential being is not his bodily existence but his spirit. Says Jesus (John vi, 63):

"It is the spirit that quickeneth; the flesh profiteth nothing."

And while saying this, he must have read in the faces of his disciples the question, "What is spirit and the life of spirit?" for Jesus continues:

"The words that I speak unto you, they are spirit and they are life."

Can the theory of the non-existence of an ego-entity be expressed in plainer terms? "Spirit," Jesus says, "is not a metaphysical being, but the words that I speak."

And on another occasion, in reply to the temptation of Satan, Jesus is reported to have quoted the scriptural sentence from Deuteronomy viii, 3:

"Man shall not live by bread alone but by every *word* that proceedeth out of the mouth of God."—Matth. iv, 4.

Words are the food of the soul, and of words souls build themselves up; indeed the rational part of the soul consists of and is embodied in words. This is forcibly expressed in the Christian doctrine that Jesus Christ, the Saviour, *is* the Word. When John speaks of Christ as being the Word, it is understood that he means the truth, viz., that word which represents the real condition of things, for of the true word alone it can be said, that it is eternal and divine, without beginning and end.

The essence of Christian ethics is to crucify our individual, and by many people so highly cherished, ego-entity, and let it die, but to renew our being by receiving Christ as the essential part of our soul. If we—viz., our original individuality—be dead, and Christ alone live in us, what is the Christian doctrine of the immortality of the soul, but an immortality of the Logos, of Christ, of the truth?

Mr. Reeve thinks that:

"We are handicapped by the immortality of the souls that have preceded us," and "are burthened by the conditions made by our predecessors."

It is a puzzle to him how we can be a soul and how our soul can be the dwelling place of so many other souls who continue to live in us. The briefest answer is given in the little story "Karma," which appeared of late in *The Open Court*. The Buddhist Nârada says:

"To him whose vision is dimmed by the veil of Mâyâ, the spiritual world appears to be cut up into innumerable selves. Thus he will be puzzled in many ways concerning the transmigration of soul-life, and will be incapable of understanding the import of an all-comprehensive kindness toward all living beings."

Dr. Lewins finds a champion of his views in Prof. J. H. Cook, who says in an article addressed to the editor of *The Open Court* and published in *The Iron-clad Age*:

"Neither science, progress, nor humanity need 'the super-personal God of science.'

"To me a God of science or anything else, and the immortality of each personal form, or ego, are unthinkable and impossible, or else I am too stupid and ignorant to comprehend or understand nature's plan of evolution."

That feature of the world which makes it possible that souls can originate, that sense impressions can become representative of things, that sound-symbols can acquire significance and thus be changed into

words, that language can describe and classify the facts of experience, that rational beings originate with ideals of progress and morality with high aspiration and noble sentiments, we call God.

Is this God a person? No! God is more than a person; God is the creator of persons. God is that which makes personality possible. Is God a substance? No! But God is more than substance. God is that which moves in all substance according to what naturalists call natural law. Is God natural law? No! God is not the natural law as formulated by naturalists, but the formulas of the naturalists, commonly called natural laws, describe parcels and special aspects of God's being.

God, like the meaning of words which are the revelation of God, is of too subtle a nature to be localised here or there, or to be found by an analysis of matter, or energy, or the forms of things. Yet is God the all-important reality of the world, for he is in matter, he moves in energy, he reveals his presence in the changes of form, and he is the significance of the world.

It is natural that people who still cling to anthropotheism (which is the belief that God is an individual being and an ego-entity as man appears to himself) should look upon this purified God-conception as atheism. And it is atheism if atheism means the denial of an individual God-being. But let me add that anthropotheism is after all a childish view of God, which degrades God and presses God down to the rank of a creature, albeit very great and all-powerful. If there were a man-like God-being, a great ego-deity, and individual cosmic consciousness, would not the God of atheism, who is the unalterable order in all existent realities and the eternal law in nature's transient phenomena, be superior to the God of anthropotheists?

The God-problem can be put into a nut-shell, as follows:

If you can prove to me that $2 \times 2 = 4$ is true because the individual God of a cosmic ego-consciousness made it so, I shall bow my knee to the Baal of anthropotheism. I call him Baal, for it is a heathen notion, and all who worship him are pagans.

Should you however come to the conclusion that $2 \times 2 = 4$ is intrinsically true and must be true, that no God and no vicar of God could alter it, I see no escape from denying at least the divinity of any individual God whose existence we may assume.

From our standpoint the statement $2 \times 2 = 4$ is a parcel description of the being of God himself; and so every truth, be it relevant or comparatively irrelevant, is a revelation of God: every scientific truth is a general formula describing some feature of reality which abides; and the totality of all truths—which, as we trust, forms a harmonious whole without contradictions or discrepancies, in one word, Truth—is the Christian logos or the revelation of God in man.

We trust that any one who will take the trouble to base his religion upon the facts of experience will find that the God of atheism, or as we better had say, the God of science, is a reality and he after all is alone God and there is no God beside Him.

We say further, in reply to Mr. Reeve, the belief in a hereafter is a very powerful spring of action and we wish men, therefore, to understand the true nature of their hereafter, which is not in a Utopian heaven and hell, but takes place here in this world of ours; it is not a vague dream of doubtful certainty, but a reality and a scientific truth.

And finally we say that our conception of immortality will satisfy the longings of every one who seeks his soul not in his bodily existence but in the ideas and aspirations of which it consists, of every one who identifies his self with truth and makes the cause of truth his own.

Science is not so unstable as Mr. Reeve attempts to make us believe. He says:

> "Science makes what is believed to be a demonstration, and sets a torch in the darkness to guide the searchers. In the next decade science finds the torch is not in the right place and moves it to another place, directed by a new demonstration—as is thought."

Any one familiar with the history of science knows that the evolution of science marks a steady advance. Apparent reversions of statements, formerly held to be scientifically true if they were truly scientific statements and not mere theories, or hypotheses, are only corrections, improvements, and further advances. Science is not a vain and senseless groping about after the unknowable,[1] but an investigation of the data of experience and a constant adding to and clarifying of the knowledge already gained, having always in prospect the inexhaustible material of an illimited world, so that the more we know the more problems rise before us and we become conscious of how much—infinitely much—will always remain unknown. But the greatest amount of the unknown does not render the actual knowledge we possess worthless. We might on the same reason argue that the few acres which a farmer owns have no value because there is so much more land which he does not possess and never will be able to buy. The actual knowledge we have, if it be real knowledge and not mere imaginings, little though it be, is of great importance to us; and the more knowledge we acquire, the better shall we be able not only to make steady advances in practical life, but also to free our minds from the bondage of superstition, and make our souls a habitation of the truth. P. C.

[1] We have no room here to enter into a discussion of the idea of a "First great cause, least understood," but refer the reader to the *Primer of Philosophy*, pp. 146-147.

CORRESPONDENCE.

THE NAMES OF THE DISCIPLES OF TRUTH.

To the Editor of The Open Court:

In your reply to Mr. Alfred W. Martin's plea for pure unsectarianism, you state that "the truth is one, but the names which the disciples of truth may choose to be known by are many." Will you please state what you mean by a disciple of truth? Do you mean to infer that all the diversified schools of religion are presided over by teachers of truth? If "the truth is one," how can its disciples logically and consistently call themselves by any other name?

Can a learner in the school of mathematics logically call himself after the name of his teacher? Is not a learner justified only in naming himself after his master, or teacher when a problem is unsolved and different opinions are taught in regard to it by different teachers?

You think that "people have a right to call themselves Christians." How can people logically and consistantly call themselves Christians when they do not know what Christianity is?

You state "that the great mass of Buddhists are much more superstitious than the worst Roman Catholic saint worshippers. But shall we on that account forbid those few Buddhists whose views are purified and elevated to call themselves Buddhists?" If they are following the teachings of Buddha, no; but if they are professing to follow him and do not know what his doctrine is, yes. We of the assembly of science cannot truthfully allow such duplicity. The man who follows the teachings of science must "call a spade a spade." You seem to infer that people of all denominations can enter the assembly, or church of science?

Such an organisation is utterly impossible. When a man enters the temple of truth he must leave superstition at the door or else he will not be at home when he gets inside. In such a temple the truth is one and the names that the disciple of truth will choose to be known by will be one. As Unitarianism stands in its relation to Universalism, and the latter to orthodoxy, in the order of evolution, so must the church of science stand separately from them all. It is the order of nature for "birds of a feather to flock together."

John Maddock.

[Names are not as definite as Mr. Maddock seems to think. I see a child's toy in the garden which may be used either for digging or shovelling: one calls it "a spade" and another "a shovel." People as a rule stick to the names that they are accustomed to using, somewhat about as they are in the habit of preferring their mother tongues, and I do not intend to interfere with them. I have no inclination to quarrel about names. If the abolition of the name of his religion helps a man to reform his religion, let him drop the name and adopt another name. I have no objection. But unless his mind be changed too, it will be of no avail. However, if a man's religious conception be reformed, I maintain, that he may still retain the old name, and supposing he adopts a new name, it is a matter of little consequence.—Ed.]

NOTES.

Hermann Ludwig Ferdinand von Helmholtz, the eminent German scientist, died at Berlin on September 8. He was born on August 21, 1821. At seventeen he entered the Berlin Royal Military Institute where in 1842 he took the degree of M. D., and thereupon was immediately made assistant physician at the Charité Hospital in Berlin (not, as the *Nation* has it, "attached to the service of charity"). In 1847, he published his famous memoir on the *Conservation of Force*—a doctrine, which, though anticipated and previously asserted by other inquirers, is still largely associated with Helmholtz's name, especially in the domain of electricity. (This essay may now be had, with the author's latest notes, in Ostwald's *Reprints of the Classics of the Exact Sciences*, H. Engelmann, Leipsic, 1889; price, 20 cents.) Successively professor at Königsberg, Bonn, Heidelberg, and Berlin (here for the first time Professor of Physics) Helmholtz's subsequent activity was almost wholly taken up with the relations of the physical with the physiological world. He enriched almost every branch of this subject, and has put his chief results in two great works, the *Sensations of Sound* and the *Handbook of Physiological Optics*. He also busied himself with the foundations of geometry, and published, it seems, independently, papers which re-discovered the results of Riemann and the rest. He worked at the theory of vortex motion, and the results of his researches have been employed in the establishment of the kinetic theory of matter. In electricity, too, he did much. From him started the impulse to Hertz's researches, of which work he himself gives us a brief account in the preface which he wrote for Hertz's *Mechanics*, just published. His productiveness seemed incredible. Of nearly all his researches, however, he has given us brief popular *résumés*, now accessible in English dress (two volumes) under the title, *Popular Lectures on Scientific Subjects*, in which the general reader will find Professor Helmholtz's views clearly portrayed.

We are pleased to see that the United States Department of Agriculture has published a brief pamphlet by Mr Edward Atkinson on *Suggestions Regarding the Cooking of Food*, with introductory remarks regarding the nutritive value of food materials by Mrs. Ellen H. Richard. The pamphlet deserves the attention of every householder. Mr. Atkinson's ideas were discussed four years ago in *The Open Court* (No 161) by General Trumbull in a review of Mr. Atkinson's *Aladdin Oven*.

In the *Memoir of John Le Conte*, by his brother Prof. Joseph Le Conte, we have a delightful appreciation of one of the first and most deeply regretted of American scientists. John Le Conte comes of a distinguished family and is a fine example of the heredity of high talents and noble character. This *Memoir* should be widely read. (National Academy, April, 1894.)

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THE SURPRISE PARTY.

BY HUDOR GENONE.

Now it happened that a certain man had an infirmity.

The same was grievous and vexed him sore, albeit he kept it upon his wife.

For the woman was one desirous of change, yea, even a gadabout.

And it came to pass that the man and his wife gave up their flat in the city aud went to live in Montclair, which is in Jersey, over against the Oranges.

And soon after they had come thereto, to-wit, about the space of a week after they moved in,

Behold, the man was alone in his front yard about the going down of the sun.

And a stranger appeared unto him, even at the gate, and did say unto him, This is Mr. Johnes, I presume?

And the man answered and said, I am he. Behold thine hand man, what wilt thou?

Then said the stranger, I am the Rev. P. Pry, and have recently settled in this place.

And Johnes answered and said unto him, Verily am I rejoiced at this saying of thine, that thou hast settled;

For, of a truth there be few that settle, else had I been a rich man before now, and that keeps me poor for I am honest.

Then said the minister, Thou mistakest my meaning, for better had I said, I have been called.

And Johnes said, Show thine hand, peradventure it be full, for I have only one little pair.

Behold they be twins, and are even now in the house, and they be daisies.

Nay, saith the clergyman, the daisies may I behold later. Now as to thyself, hast thou experienced a change?

Johnes answered straightway, Verily I have that, and a change for the worse.

Then said the clergyman, How can this thing be? Is there no benison on this thine house?

And again Johnes saith, I know not how that may be about a benison, but verily there ought to be a new roof, for the one that now is leaketh.

Then the clergyman heaved a sigh and saith, One thing thou lackest.

And Johnes answered, Right thou art, it is a sewer.

Then would the holy man have gone away, carrying few, if any sheeves with him;

But Johnes, who was after a fashion worldly minded, spake unto him, saying:

Tarry yet a while, for I have somewhat to say unto thee. Thou hast piped unto me and I have not danced perhaps, but verily have I answered thee as the spirit moved me, truthfully.

Do now, I pray thee, tell me certain things, for I marvel greatly and I would not disquiet myself in vain.

Hast thou, O my friend, ever had the measles?

And the clergyman answered and said, Verily I fail to see the relevancy of this thy question; but I did have the measles in my youth.

And Johnes saith, How many measles didst thou have in thy youth?

And the clergyman saith, Mr. Johnes, thou art impertinent.

But Johnes answered, saying, That may well be, seeing thou didst set the example thyself.

Yet another question, I pray thee: Where didst thou get thy cheek, for I perceive that it is large?

Then was the clergyman wroth and saith unto Johnes, Thou art a son of Belial, and gat him straitway to the gate.

And he skipped and danced with wrath, yea, like unto a bubble on a hot stove.

And Johnes went into his house justified, albeit he had not gotten all the information he wanted;

Neither about the number of the measles the clergyman had in his youth,

Neither as to where he procured his cheek.

And lo! while the clergyman did skip and dance Satan perceived him afar off, and saith in his heart, Why, how is this that the servant of the Lord skippeth and danceth?

And when he drew nigh he listened from behind a hedge and he heard the minister communing with himself.

And what he said was like unto swear words, yea,

verily a blue streak thereof, albeit he was praising the Lord that he was not like unto Johnes.

Then Satan saith, Oh, ho! oh, ho! But the clergyman seemeth to be on my side after all.

And Satan rejoiced greatly, and, having heard Johnes's name mentioned, thought he would drop in on him unawares.

And Satan did so; and it was eventide, and the supper table was set, and there Johnes sat with his wife over against him.

And the kids (them that were daisies) sat on either hand and they all did eat pancakes.

And Mrs. Johnes asked her husband concerning the servant of the Lord, and as to what he wanted.

Then Johnes smiled, and lifted up his voice and saith, He was a saucy fellow and a puffed up.

And he came unto me not to seek and save that which was lost, nor yet to minister unto me or thee;

But because he snuffed the collection plate.

Yet do I cherish no enmity against him, but rather pity him because of the infirmity he hath.

And when Satan heard what had been said, and saw into Johnes's heart, and perceived how much better it was than the ministers,

He was vexed and chagrined, and he said unto himself, Gosh! How mixed things be in this world!

Verily, but it is difficult to tell t'other from which; for I could have declared that Johnes was my disciple.

Then Satan gat him away quickly from Montclair, yea, even unto Hell.

(Which, by the way, was not so very far.)

And later on concluded to drop in upon the Lord.

So he crossed the gulf and rang at the door of Heaven and a seraph came.

And the Lord was in and came down into the front room and talked with Satan,

Very sociably and about the weather, which Satan said was milder his way.

And one thing led to another till Satan said, O Lord, but I have an excellent idea.

And the Lord smiled and said, Some of thy ideas are excellent. I would I had thy perseverance. But what is this particular idea?

Then saith Satan, My ideas are not generally particular, (whereat the Lord smiled again,) but such as I have give I thee.

And then he went on in his plausible and amusing way, telling about Johnes and the parson.

And when he had gotten through he saith, Now see here, O Lord, isn't it about time this thing stopped?

Would it not be more comfortable both for thee and for me if we could tell our disciples apart easier?

Lo! now this is my idea: that we agree upon a non-partisan board;

And they shall have a civil service examination at once, without waiting for the judgment day. It would save us both a great deal of trouble and expense;

What sayest thou?

Then the Lord smiled once more and answering, saith:

It is kind of thee, Satan, to come so far out of thy way to propose this unto me;

But, then, thou seest, it is the kind I don't like. For I know my sheep.

And, (which is vastly more important for the sheep,) I am known of mine.

The fact is, Satan, that judgment day is going to be a surprise party.

Abstractly, no doubt, that idea of a non-partisan board is excellent from thy point of view.

But from mine own it is quite otherwise. It would not be a square deal;

For verily when good and evil go into partnership it is evil that getteth the best of it,

And I desire to find out who are really my disciples, by trying them with temptations and letting them try me by their own free choice.

This logic ought to have been convincing to Satan, and perhaps it was.

But who is there lets logic stand in the way of his wishes? Not the Evil One, of a truth.

For he was persistent and saith again: O Lord, if so be thou and I cannot agree upon a policy of conciliation,

How would it do to take a vote of the inhabiters of the earth,—take the sense of the populace, so to speak?

Then the Lord answering, saith unto Satan, Thou triflest, Satan, for the populace have no sense:

But some of them have big warm hearts, and that is the sort I want for angels.

Then Satan murmured that he supposed he would have to wait.

But verily thy day of judgment, O Lord, saith he, will indeed be a surprise party.

And when he had thus spoken, Satan said good evening, and hung his tail, and went forth unto his own place sore discomfited.

BUDDHISM IN JAPAN.

BY NOBUTA KISHIMOTO, M. A.

V. THE ZEN AND THE SHIN SECTS.

Having pointed out the principal features in which all the "twelve recognised sects" of Japanese Buddhism are unanimous, I will now explain some of the differences. But, as it would lead us too far to investigate the characteristics of all these sects, let us pick

out the two extreme ones and be satisfied with investigating and contrasting their peculiarities.

The two extreme sects are the Zen sect and the Shin sect.

The *Zen* sect, which is the most ascetic and most contemplative of all the twelve sects of Japanese Buddhism, was not introduced to Japan till the close of the twelfth century, A. D. But the sect itself is traced to the early part of the sixth century, when Bodhidharma came from India to China, where he became the founder of the *esoteric* Buddhism. The teaching of this sect is called *esoteric*, because this sect rejects book-instruction and teaches to look inward into one's own heart. The "transmission from the heart to the heart" is its essential doctrine, and the only way open for this transmission is by contemplation. Hence the name of this sect, namely, *Zen*, which stands for the Sanskrit *Dhyana* and means contemplation. The founder, Bodhidharma, is said to have sat down cross-legged in meditation, with his face toward a wall, for nine years. Thus this sect is in contrast to all other sects which adhere to books, traditions, and outward acts as essential to the attainment of Nirvâna. "To become Buddha," to borrow the words of a writer, "the mind only needs to be freed from every one of its affections, not to love or hate, covet, rejoice, or fear. To do or aim at doing what is virtuous or what is vicious is to leave the heart and go out into the visible tangible world. It is to become entangled in the metempsychosis in the one case, and much trouble and vexation in the other. The other method is in the mind; it is the mind itself. The fountain of knowledge is the pure, bright, self-enlightening mind. The method taught by all the Buddhas is no other than this. Let the mind do nothing, aim at nothing, hold fast to nothing: that is Buddha. Then there will be no difference between living in the world and entering the Nirvâna. Then human nature, the mind, Buddha, and the doctrine he taught, all become identical." Such is the spirit of this sect of contemplation.

The *Shin* sect, on the other hand, is the most secular and most easy-going of all our Buddhist sects. The name *Shin* means "true," and the full title of the sect reads, "The True Sect of the Pure Land." In Japan there are at present four sects which are of the "Pure Land" type, that is, the sects which teach that if one "repeats the sacred name of Amitabha Buddha with a whole heart" he will gain the good effect of being born in the Pure Land after death. Of these four, the Shin sect goes to the utmost extreme in emphasising this teaching. The Shin sect was originated in Japan during the early part of the thirteenth century, and its foundation is the belief in the "Other Power of the Original Prayer of Amitabha Buddha." This "Original Prayer" is this: "If any of living beings of the ten regions, who have believed in me with true thoughts and desire to be born in my land and have even to ten times repeated my name, should not be born there, then may I not obtain the perfect knowledge." With this prayer Buddha practised good deeds during many *kalpas*, intending to bring his stock of merits to fulness for the deliverance of all living beings. Therefore, if one believe in the vicarious power of this "Original Prayer," and repeat the name of Amitabha Buddha, he will be born in the Pure Land and enjoy perfect happiness. If one believe this and practise this, that is all that is required. This belief and this practice will naturally work out one's salvation, and hence there is no further use of any artificial devices, such as "becoming homeless and freeing one's self from worldly desires." Hence even the priests and monks are allowed in this sect to drink liquors, to eat fish and flesh, and to marry, just as the ordinary laymen do, while all these acts are generally prohibited in all the other sects of Japanese Buddhism.

These two extremes of Japanese Buddhism, although they agree in certain points, as was above stated, do yet differ in many points from each other. To note some of the main differences: the Zen sect is essentially *atheistic*, or I might say pantheistic in its teaching, while the Shin sect is almost *theistic*. The former does not admit the existence of anything except the self-enlightening mind—the contemplator. There is no personal God who is apart and distinct from the contemplator; there is no external world which is not the result of our delusion. On the contrary, the Shin sect regards Amitabha Buddha not only as the all-merciful Saviour, but also, practically, as the all-present God. Thus Amitabha Buddha of the Shin sect plays the double part of God the Father and of the Son, Christ, of Christian theology.

The Zen sect is *idealistic* in its conception of salvation, while the Shin sect is *realistic*. According to the latter, salvation means the actual transfer of those who believe in Amitabha Buddha from this world of pain and suffering to that "Pure Land," where they will enjoy eternal happiness, living together with Buddha and his saints. Just as this world is real, so is this "Pure Land" real to the believers of this sect. But according to the Zen sect, even the present world has no real existence, and, if so, how much reality can the future world claim for itself? There can be no salvation apart from the enlightenment, the emptiness and tranquillity of the mind, according to this sect.

As these two sects are different in their conception of salvation, so they are different as to the *means* of salvation. The Zen-sect teaches "self-help" as the only means of salvation, while the Shin-sect empha-

sises "others'-help" as the universal way of salvation. *Faith*, says the latter, is the means of salvation; while the former says, *meditation* is the means of salvation. "If one believes in Amitabha Buddha," teaches the Shin-sect," and is devoted enough to repeat his name, he will never lose his salvation." Thus a man is saved by a power not of his own, that is to say, by "others' help." The Zen-sect, on the contrary, teaches that as salvation consists in enlightenment and as the enlightenment cannot be passed over from one to another like merchandise, every one must work out his own salvation by discipline and meditation. Here, salvation is by one's own power, that is, by "self-help."

As the teaching of these two sects is different in these cardinal points, so the *conduct* of their monks and priests is quite different, one from the other. Those of the Shin-sect are *secular* or *optimistic*, while those of the Zen-sect are *ascetic* or *pessimistic*. In the one case, as the power of faith and the power of the "Original Prayer" are strong enough to bring about one's salvation, naturally there is not much use in hard discipline and austere life. In the other case, as the enlightenment is the ultimate end of existence, the life of its monks and priests is a life of retirement, celibacy, poverty, tranquillity, uprightness, self-mortification, and meditation.

Finally, as the natural result of such a hard life in the one case and an easy life in the other, the *adherents* of these two sects divide themselves into two distinct classes. Generally speaking, the adherents of the Zen-sect are more *scholarly*, at least better educated, than those of the Shin-sect, who are more *ignorant*. Probably this distinction is more true among the clergy of these two sects than among their lay-believers. Among the lay-believers of the different sects, as we saw above, there are not so many differences either in belief or in practice, as there are among the clergy of the different sects, although the influence of the Zen-sect is very strong among the educated and reflecting classes of the laity in general.

These are the main differences, as far as I can see, between these two extremes of Japanese Buddhism—the Zen-sect representing the negative or ascetic Pole and the Shin-sect the positive or secular Pole. Between these two extremes there are many sects of intermediate nature, some tending more towards the Zen-sects, while the majority tend towards the Shin-sect.

WORDS AND THEIR MEANING.

A REPLY TO MR. ELLIS THURTELL.

In an article on the Parliament of Religions entitled "The Dawn of a New Religious Era," which appeared in *The Forum* (reprinted in an appendix to *The Monist*, Vol. IV, No. 3) I said with reference to some strictures made on Mohammed's religion:

"Dr. Washburn's quotation from the Koran reminds us of similar passages in the New Testament; the old orthodoxy of the Moslems, however, is giving way to broader views. *Tout comme chez nous!*

"Prof. Minas Tchéras, an Armenian Christian, when sketching the history of the Armenian Church, said sarcastically that real Mohammedanism was quite different from the Islam represented by Mr. Webb. This may be true, but Mr. Webb might return the compliment and say that true Christianity as it showed itself in deeds such as the Crusades, is quite different from that ideal which its admirers claim it to be. Similar objections, that the policy of Christian nations showed very little the love and meekness of Jesus, were indeed made by Mr. Hirai, a Buddhist of Japan. We Christians have reason enough to be charitable in judging others."

The two words *We Christians* in the last sentence have proved a great stumbling block to Mr. Thurtell, who considers them as a "sop" to the Christian church, implicating me in hypocrisy. Mr. Thurtell criticised the expression again and again; I explained the passage, but he would not be comforted; and in a late number of *The Agnostic Journal* he recurs to it a third time. The passage and the whole article in which it appears are such that I consider myself beyond reproach. I purposely include myself under the category of what Mr. Hirai called Christians, for, to be fair, I am as much guilty as our Baptist minister or any other orthodox Christian of the wrongs which the Christian powers have inflicted upon Japan, and by thus including myself I made the acknowledgment more impressive.

I must add that I have never, so long as I have stood before the public as an author and editor, used the expression "we Christians," and it is not my habit to classify myself among Christians. Nevertheless, I do not intend to forego the right of calling myself a Christian, or a Buddhist, or a pagan; a Kantian, an anti Kantian or anything else. The notion of issuing injunctions against the use of names and words is a very popular one, but it is an assumption of authority which is totally unjustified.

Mr. Alfred W. Martin of Tacoma, Washington, in a spirit of sincerity and with an enthusiastic love of truth, protests (in No. 363 of *The Open Court*) against the use of any sectarian name, Christian, Buddhist, or Mohammedan; and I grant that it is *his* duty to drop the name which appears to *him* inappropriate, but I cannot grant him or any one else the right of forbidding others the use of any name, if according to *his* definition of the name the bearers are not entitled to its use. Everybody can define the term Christian or Buddhist as he pleases, but he goes too far if he makes a matter of conscience of his own definition.

Mr. Thurtell says, "Christian means one who believes in supernaturalism." Is that so? Well, I know that many of those who call themselves "orthodox Christians" are, as a rule, addicted to that world-conception which most appropriately is called "dualistic supernaturalism." But why generalise? There are many millions of Christians who scarcely know what supernaturalism means and whose Christianity consists in following the moral injunctions of Christ. Many Christians, for instance Professor Turner of Jacksonville, Ill., reject supernaturalism and in conscious opposition to Churchianity proclaim Christianity to be an acceptance of the simple Christ-word and a living in accord with Christ's ethics.

The word Christian has changed its meaning in every century. The first Christians called themselves "disciples" and they were one community among many other similar communities by no means limited to the Essenes in Palestine, all of which called themselves "disciples." The disciples in Antioch were nicknamed by the pagan population "Christians," and this nickname came to be adopted for all the disciples of Jesus. The original Christianity, viz., the faith of the "disciples" who gathered round Jesus in Galilee, consisted in the hope that the kingdom of heaven was near at hand and that it would come by repentance, or rather by a μετάνοια, a renewal and radical change of our soul. The platform of the disciples of Jerusalem was communism carried to its extreme, a policy which proved very disastrous, for the relief of the poor was only temporary, and the well-to-do members of the Church were hopelessly ruined; so that we need not wonder at the complete disappearance of the Christian Church among the Jews.

The meaning of the name Christian was fixed by St. Paul as that of a member of the Church, as he founded it among the gentiles, and, according to his definition, we should have to define a Christian as a believer in the resurrected Jesus. This of course does not exclude that at the time of Paul there were many Christians who called themselves Christians without believing in the bodily resurrection of Jesus Christ, as we read in I Cor., xv, 12:

"How say some among you that there is no resurrection of the dead?"

The very zeal with which Paul emphasises the necessity of the belief in Christ's resurrection proves that the faction of Christians who rejected it was not inconsiderable.

The apostle's notion of the resurrection is of a double nature, for he first believes in the resurrection of Christ's body and then again and again emphasises the resurrection of Christ's soul *in the souls of the Christians*. In the epistle to the Colossians he says:

"Ye are dead and your life is hid with Christ in God. . . . "Mortify therefore your members . . . . put off all these: anger, wrath, malice . . . . and have put on the new man—viz., Christ—which is renewed in knowledge after the image of him that created him."

The word knowledge reminds us of the Buddhist term "enlightenment." In the second epistle to the Corinthians v, 17, we read:

"If any man be in Christ, he is a new creature."

And in the epistle to the Galations Paul says:

"I am crucified with Christ: nevertheless I live: yet not I, but Christ liveth in me."

Thus a spiritual conception of Christ's resurrection and a gross materialistic belief in the revivification of the dead body of Jesus are strangely mixed in the apostle's imagination.

Christianity changed again when some Neo-Platonists became impressed with the new religion, and the author of the fourth Gospel very philosophically defined the essence of Christ as "the Logos," or "the word." To Christians of his stamp Christianity meant a belief in the incarnation of the world-reason, which revealing itself in all great teachers of mankind, had reached its climax in Jesus. Philo has written a book to prove that Moses was an incarnation of the Logos; and now a Christian came and wrote the fourth Gospel, generally called the Gospel according to St. John, to prove that this same Logos who was in the beginning, who was with God, and who was God himself, had, at last, appeared in the flesh in Jesus of Nazareth. This was the fulfilment—πλήρωμα. While Paul emphasised man's need of faith, this class of Christians sought salvation by knowledge. While Paul speaks of belief and believing (πίστις and πιστεύειν), the fourth Gospel begins to speak of knowledge and knowing (γνῶσις and γιγνώσκειν), making knowledge the main condition of right-doing. Jesus says, John xii, 17:

"If ye know these things, happy are ye if ye do them."

Christianity was a different thing with almost every great teacher who arose, with the patriarchs and the fathers. To the most important Roman father, St. Augustine, Christianity was by no means only a belief in Jesus as the world-saviour: to him it was universal religion; it existed among the ancients and was not absent at the beginning of the human race. But since Christ came in the flesh, St. Augustine says, it has become customary to call this true religion, which existed before, "Christian."[1]

It would lead us too far to trace all the changes of the name Christian. This much is certain, that the view of a Christian of to-day resembles that of a member of the first church at Jerusalem as much as a physicist's conception of gravity resembles his notion of

[1] Ipse res quæ nunc Christiana religio nuncupatur, erat apud antiquos nec defuit ab initio generis humani, quonsque ipse Christus veniret in carne, unde vera religio quæ jam erat, cœpit appellari Christiana.—Retr. i, 13.

falling bodies when he was a baby. There is a historical connexion among all the stages through which Christianity has passed, there are no sudden changes, nevertheless there are changes, and many of them are radical and even reversals of what at other times was regarded as its most fundamental teachings.

Christianity is a living power still, and our Christian institutions contain, in spite of the dead lull that obtains at present, great potentialities.

Christianity is a historical movement, which, beginning with Jesus Christ, attempted in the first centuries after its appearance to gather in its stream all the rivulets of kindred aspirations. It comprised many narrow and many broad minds. With the attainment of secular power, the principle of narrowness reached ascendancy in the Christian church. Nevertheless, we witness again and again powerful endeavors after a larger and even after a cosmical latitudinarianism. Who can predict the future of Christianity? Will our churches rot away in their bigotry and paganism? Will they always remain in the bondage of a belief in the letter and remain dead to the spirit? Will Christians systematically shut out the light of the sole religious revelation we have—rational inquiry and science? Who can tell? Certain it is, that the Christianity of the twentieth century will be different from a belief in the Thirty-nine Articles, or a blind acceptance of Westminster confession. The Bible criticism, the historical research, the philosophical and scientific studies of so many faithful and truth-loving Christian scholars have not been in vain; they have already borne fruit here and there in the closet of the devout student, but the great harvest day has not as yet come. I cherish the confidence that come it will and come it must.

If there are men,—and I know some of them personally; most of them belong to the Unitarian church, but some others belong to very orthodox churches, in America and also abroad,—who believe in the Christianity of the future, calling themselves "Christians" because they labor for leavening the whole dough with purer, truer, and more noble ideals,—who can blame them? Who dares to take them to task or reproach them for hypocrisy?

* * *

I do not, as a rule, call myself a Christian. The passage which gave offence to Mr. Thurtell is the first in which I used the phrase "we Christians," and I am not anxious to join a church or have myself classified as a Christian. Nevertheless, I reserve to myself the liberty of calling myself what I please, for I have as good a title to the name Christian, if not a better one, than the Pope at Rome.

As my Christianity is not the primitive hope of the first disciples, nor the dream of mediæval dualism, but the broadened faith of the church of the future, the judge that will decide my case is neither the historian who digs up the roots of Christianity from the dead past, nor the present authorities of our ecclesiastical institutions, but the better educated posterity which have learned to recognise the religious import of the light of science.

Who has a right to call himself this or that? Can I call myself a Kantian? Certainly! I have sat at Kant's feet as his disciple. I learned from him. His modes of thought are impressed upon my mind and form part of myself. Kant's philosophising has, to a great extent, become part of myself, and this gives me a title to calling myself a Kantian. Nevertheless, while I have adopted many of Kant's modes of philosophising, I have not adopted the results of his arguments. I reject the main doctrines of his philosophy, his apriorism and transcendental idealism. In this sense I am an anti-Kantian, and am fully entitled to label myself as such.

As to Christianity, the case is similar. The teachings of the Christ of the Gospel became part of my soul while I was still a little child. Many of his most beautiful injunctions were taught me at such an early time as lies beyond the pale of my recollection, and the sentiment of Christ's ethics has become and is still the most constituent foundation of my moral life. Have I not as good a title to the name Christian as any other Christian? If I do not call myself a Christian, for reasons which I need not explain here, I can truly say that I am a Christian, and I hope that those who censure me for once having used the expression "we Christians" are "Christians" in the same sense.

I do not hesitate to call myself an "infidel" among people who understand by "infidelity" a disbelief in Christian dogmas. I did so of late in the presence of a bishop of the Methodist Episcopal Church. Nor would I hesitate to call myself a pagan among people who identify paganism and humanitarianism as developed by the ancient Greeks. But I would be apt to call attention to the infidelity of the so-called faithful to the ideals of him whom they worship as their Master, and I would point out their paganism, which, in a certain sense, is not much higher than the idolatry of fetish-worshippers.

In a certain sense I am a Buddhist, for I adopt the main doctrines of Buddha as to the non-existence of the âtman or ego-soul, and the irrationality of the belief in a creation of the world by a big ego-deity out of nothing. Should these subjects be discussed, and I were asked whether I am a Buddhist, I would say, "Yes, I am a Buddhist; I side with Buddha and reject the dogmas of the Christian church." Should, however, on another occasion, the question arise

whether I belonged to one of the Buddhist sects, I would have to answer, "No! I am not a Buddhist!"

One of the delegates at the World's Parliament of Religions, Christopher Jibarra, the Venerable Archimandite of the Apostolic and Patriarchal Throne of the Orthodox Church in Syria, was a Christian and a Mohammedan, and he attempted to prove to us that he could consistently be both at the same time. Whether his logic is sound depends upon what he considers as essential in both religions.

No controversy is so sterile and profitless as a quarrel about words, and I would not have gone thus far into detail, were not the question, What do we mean by classifying ourselves as Christians, Kantians, Germans, Englishmen, Americans, Unitarians, infidels, etc.? of importance. A man who calls himself a Christian, means that some Christian ideas or aspirations, which he considers of great moment, have become embodied in his soul as a part and parcel of his being. Thus a man may consistently be a Christian and also an Englishman or an American. Nay, he may be a Christian and a Buddhist and a Kantian at the same time.

Names are labels, and it so happens that many different things are labeled under the same name. It is not the label which makes a thing such or such, but the substance, and while the employment of labels affords a great help in classifying the various brands, we must not attach to the labels too much importance. Labels are lies when used to deceive, but otherwise labelling is a mere matter of expediency, and when a name is properly defined and illustrated by samples, so as to be unmistakable, we must allow the conflict of contradictory definitions to be decided in a struggle for existence.

AGNOSTICISM.

By agnosticism I understand that world-conception which considers the fundamental problems of philosophy as intrinsically insolvable. This philosophy is very prevalent at present and exercises, in my opinion, a blighting influence upon our generation. In the editorial article, "The Message of Monism to the World" (*The Monist*, Vol. IV, No. 4, p. 547), I said:

"The natural consequence of it is that the children of our time have become shallow and exhibit a lamentable lack of character, which appears in the methods of education, in the productions of art, in the religion of our churches, and in the principles of moral conduct."

My reviewer, Mr. Thurtell, says:

"*The Monist's* editor, however, still stands committed to an attitude of uncompromising hostility towards agnosticism. This comes out strongly in his second contribution, 'The Message of Monism to the World.'"

Having quoted several passages he continues:

"And, upon my word, it is enough to take one's breath away to read the words italicised, and to remember that they spring from the pen of a Freethinker who has already sacrificed his cock to Æsculapius in the phrase, 'We Christians.'"

By agnosticism I mean what the name denotes, that which it has been characterised as in Mr. Spencer's *First Principles*, and by the inventor of the term, Professor Huxley, who declare that the solution of certain very important problems is intrinsically impossible. I stated in the article that "I am myself an adherent of the agnosticism of modesty, which remains conscious of how little we know," and that "I object only to the agnosticism of arrogance, whose devotees dogmatically declare, 'We do not know, and thus no one can know.'" Nor have I any objection to the agnosticism of Mr. Stewart Ross, who published in the *Agnostic Journal*, p. 89, the following passage of a letter of mine to him. He says:

"Dr. Paul Carus defines our agnosticism with commendable penetration when, in a private letter, he writes: 'You seem to mean by agnosticism the insufficiency of the present knowledge, and try to extend the compass of man's soul by all means at our disposal, including the mystic realm of our hopes, fears, and, also, the subconscious yearnings of our heart. I have never found you denying the possibility of knowledge in any sphere of existence; but, on the contrary, trying to anticipate future knowledge.'"

With all these very plain finger-posts, Mr. Thurtell should have been able to understand my meaning. I mean that the now so popular philosophy which, as a matter of principle, teaches the intrinsic impossibility of knowledge on all vital questions, including the religious problems of God, soul, and immortality, exercises a most pernicious influence.

Let us not haggle about words; let us discuss the substance of the proposition. If Mr. Thurtell can prove that I am wrong, I shall be glad to listen to his criticism and profit by it.

A PERSONAL REMARK.

In concluding these remarks I have to thank Mr. Thurtell for his careful and, aside from these two points, very appreciative review of my article. I know that his criticism comes from a sincere heart, and his objection to the term "Christian" springs from an uncompromising love of truth. He writes in a letter to the *Agnostic Journal*:

"I only wish I could follow Dr. Carus's easy-going example in the matter. I can emphatically assure him that it would be very much to the advantage of my position in this English village could I do so."

I can sympathise with Mr. Thurtell; but I wish he could follow my example without sacrificing his opinion. Years ago, when my position at the Royal Corps of Cadets at Dresden was made dependent upon my keeping quiet on matters of religion, I preferred to resign. But now I am at liberty, and having criticised without reserve the many errors of dogmatic Chris-

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tianity, I need not fear being accused of hypocrisy when at the same time I call attention to the noble sides of Christianity. I suffered years ago for being, as I was called, an "infidel," and as I have now nothing to lose and nothing to gain, I trust that I can afford to be impartial. There is no sense in attempting to destroy Christianity; our aim must be to develop it, and lead it on the path of progress to truth.

There is no creature which does not carry in itself —especially in the beginning of its career—the potentiality of at last developing a rational soul, and there is no religion but it may develop into a religion of truth. Says Mr. Thurtell:

> "In the third section of his exposition Dr. Carus assures us that 'science is a religious revelation'; that 'Monism does not advocate a revolution in religion, but a reform,' and much besides in a similar strain. Yet Virgil's 'Timeo Danaos et dona ferentes' will surely haunt the far-sighted theologian's mind as he reads this article. For the 'message' can scarcely prove other than a mandate for unconditional surrender."

This is quite true. We can compromise on names and on many more things, but we cannot compromise as soon as truth is at stake. Nevertheless, let us make it easy to our brothers who are lagging behind to reach the truth, and let us show them the truth as they are able to understand it. Let us follow the example of the reformer as described by Isaiah, who says:

> "A bruised reed shall he not break, and the smoking flax shall he not quench: he shall bring forth judgment unto truth."

P. C.

AUNT HANNAH ON THE RELIGION OF HER CHILDHOOD.

BY MINNIE ANDREWS SNELL.

In th' days 'ats past an' gone—
Days of pantalettes an' play,
When th' six days work wuz dun,
An' th' bath wuz taken—say,
Do you know I 'member best
Of all those times, th' meetin's—well—
Th' weary tenthlys—an' th' rest,
Mostly car'way seeds an' hell.

On th' Sabbath, t' th' sound
Of th' bells ajanglin' loud,
We could mostly then be found
Filin' inter church—a crowd
Of starched an' long-faced girls an' boys
Marshaled in our Sunday best,
Treadin' soft t' make no noise,
Knowin' 'twas th' day of rest.

Th'ough th' windows came th' scent
Of th' grass an' laylocks sweet,
An' th' green elm's branches bent
An' nodded—tell th' little feet
Ached t' leave th' weary place,
An' th' high pew seemed a cell,
An' th' preacher's solemn face
With my eyelids rose an' fell.

Then I 'member, when instead
Of th' "ninthly" an' th' hum
Of th' bees, my little head
Sleepy bobbed an' dreams 'ud come;
An' some hand 'ud slyly give
Country treat of pungent smell;
Th'ough years th' mingled mem'ries live
Of car'way seeds an' hell.

An' tho' we're wiser far to day
Than when we shrank in fear of flames;
An' tho' we've gained in many a way,
An' call things by sci'ntific names,
I 'member still th' joy an' fear—
Th' preacher's words, like solemn knell—
Th' seedlin' sweet—a mem'ry dear
Of car'way seeds an' hell.

BOOK REVIEWS.

JOHN BROWN AND HIS MEN; With Some Account of the Roads They Travelled to Reach Harper's Ferry. By *Richard J. Hinton*. New York, London, and Toronto: Funk & Wagnalls Co. 1894. Pp., 752. Price, $1.50.

This volume of the series on "American Reformers" is extremely rich in sketches from life of the heroes of the tragedy of Harper's Ferry. A lively description of that event and its consequences occupies more than half the volume, but not to the exclusion of much interesting and new information about the earlier life of John Brown and his brave followers. The plea offered in excuse for the Pottawattomie massacre is especially worthy of careful consideration; and so is that presented in vindication of Forbes from the charge of treachery. Cook's memory, also, is redeemed from much injustice by the publication of his alleged confession in the Appendix. There, too, may be found many important letters and papers by John Brown, for instance, his "Declaration of Liberty."

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THE BARRIERS OF PERSONALITY.

BY GEORGE M. MC CRIE.

M. Th. Ribot, in his psychological memoirs, classes as an illusion the old idea of an ego-entity at the foundation of our psychical activities. In that new psychology, wherein so much that is novel is disclosed, the purely limitary ego cannot be found. And this because the province of the ego has been infinitely extended, so as to include the totality of ideas, pleasures, and pains of which we are the continual subject.

Some thinkers go even farther at this stage of the philosophic path. With them, not only is the ego the mood of the moment, the passing emotion—it is also, as it were, the stimulus, the veritable object, which rouses into activity all the host of subjective feelings which make up the *I* of human existence. In this view, between objective world and subjective spectator, no dividing line is discoverable; the world of the objective, and I who move in it as subject, are separated by no ascertainable division.

But, however far we may travel on this road, whatever our conclusions in the above respects may be, it is to be remembered that these and similar conclusions—which may appear strange, and even untrue, to those who have not minutely studied the questions at issue—in no way touch the true barriers of personality. On the contrary, they define and confirm them. For, however extended my ego-personality may become, however enlarged its view, until it includes, not only all my moods and phases of being, but also all of which I am cognisant—*my individual and proper personality* it still remains, unconfused and unconfounded with the personality of any other being. Across the "insuperable threshold" of self none can ever pass. In the old words—none of us "can by any means redeem his brother; nor give to God a ransom for him." "The heart knoweth his own bitterness; and a stranger doth not intermeddle with his joy."

The individual is the true unit. It cannot be otherwise, if only we think of the matter rightly. Neither in experience, nor in any reasonable system of thought, has this self-testimony of consciousness been conclusively assailed. To avow scepticism regarding it is but indirectly to affirm its truth. The *I* of consciousness, whatever its nature or limits may be, is inexpugnable.

Monism, consistent monism, accordingly, does not deny but asserts this essential individuality. Only in this way can the two cardinal truths be preserved, of the strict unity of the cosmos on the one hand, and of the individuality of the subjective organism on the other, when it is recognised that each individual fashions his own surroundings and makes or mars his own fortunes, irrespective of any external or supernatural decree. "Self is the lord of self—who else should be the lord?" When the late Prof. T. H. Green walked with his students on the river-bank at Oxford he was accustomed to ask them, on coming to one of the bridges, how many bridges there were before them. "One," would be the reply. "Oh, no," was his rejoinder, "as many bridges as there are spectators, as many bridges as there are brains to fashion them!" And this, which doubtless seemed a hard saying to his followers at the time, was the soberest truth after all, scientifically and philosophically. The Professor, despite some ultra-refinements in his thought system, was essentially a monist. True dualism, in the same circumstances, would have consisted in postulating *one* veritable objective bridge, of which the individual subjective impressions were so many copies.

The individualism which lies at the root of all true monism is the surest barrier against every form of anthropomorphism, against the idea of a Deity sitting outside the universe he has constructed and seeing it go. Old fashioned philosophy sets out with the idea, ready-made, that there are three main objects of inquiry—God, Man, and the World; and this really unphilosophical prepossession once started with, the way of error is easy. The monist of to-day, on the other hand, finds God and the world in the "inner infinite" of his own breast. The kingdom of heaven, as Christ himself expressly declares, is not *here*, or *there*, but "within us."

Monistic individualism sets man on his own feet and enjoins him to work out his own salvation, unaided by any priestly mediation, undeterred by any priestly malediction. Of all the perverse ideas that ever possessed the mind and heart of man, surely the fiction of sacerdotal intervention and sacramental efficacy is the

most malign. But it utterly disappears, like the shadow of some evil dream, when it is realised that man's potentialities are at his own disposal, and that his career is his own to make, for good or for evil. The lines of Omar Khayyám finely emphasise the truth that self is at once its own recompense and its own retribution :

> "I sent my soul into the invisible,
> Some lesson of that after-life to spell;
> And by and by my soul returned to me,
> And answered '*I myself am heaven and hell.*'"

Individualism is ever stronger than collectivism. Any social scheme which consults the interests of the group, at the expense of the unit, which composes it and without which it would not exist, is foredoomed to failure. Marcus Aurelius, indeed, has said that "what is good for the swarm cannot be bad for the bee"; but that is beginning at the wrong end. In social reform we must begin, not with the group, which has no *locus* apart from its component elements, but with the unit. To revert to our first illustration, when the bee is as it ought to be, in all its several relationships, the swarm may be trusted to look after the things of itself. As Shakespeare puts it, trueness to one's self involves, necessarily, a corresponding trueness in all the relations of life.

Comte's idol of humanity was the apotheosis of the swarm—and the deification of the ghosts of all past and dead swarms. What a ghastly dream! So, under the Juggernaut car of socialism, all individual life would be trampled out of human semblance. No motive for exertion, no supreme ideal can touch or quicken, which does not come hot from the individual heart. All effort, to be worthy of the name, must be from the self outwards. Every heroic and valiant deed which history records sprang, like Minerva from the head of Jove, from the burning resolve of one man. The intense energy of a Paul, a Luther, a Savonarola, simply refuses primarily to arise in a horde or band of men. The collective genius of a corporation, the joint energy of a council, refuses to be translated into any equivalent whatsoever. In such a concourse of minds there is no height of instinctive wisdom, no divination, no prophetic burden; there is only the dull average of the individual minds which compose it.

"*Je mourrai seul*," said Pascal, and the saying is typical of that "aloneness" of the individual life which is always more or less present to minds of the highest calibre. For immortality, in whatever light we may view it,—an immortality to come, or that "larger hope" of the "immortality that now is,"—would be a mockery, a contradiction in terms, if it were not for the ineffaceable lines of personality, lines which may not be broken, and which may scarcely fade :

> "Thou yet shalt leave thine own enduring token,
> For earth is not as though thou ne'er hadst been,"

was not spoken of the society, or of the community, but of the individual soul. Whatever we may think of immortality, it must always be of an immortality strictly personal and individual, or of none at all. The beatific vision of St. Paul was only the natural and assured sequel of individual life here, a continuance of individual existence in Him, in whom, to use his sublime words, "we live, and move, and have our being."

Tennyson, in his "In Memoriam," attempts, in the last recess of thought, to get beyond this individual immortality. He seeks, in the hereafter,—

> "Upon the last and sharpest height
> Before the spirits fade away:
> Some landing-place to clasp and say—
> 'Farewell, we lose ourselves in light!'"

But such an absorption, for such it would be, of the individual in the All is a pantheistic dream, and, from the Christian standpoint, untrue. Whatever our views on these subjects may be, we shall always be thinking logically and correctly in asserting that, if anything be permanent, individuality is permanent. All other immortality is but a multiple of this primary unit.

THE MEANING OF "SELF."

MR. GEORGE M. MCCRIE is a zealous apostle of Dr. Robert Lewins's philosophy of Solipsism, the basic principle of which has been tersely expressed in the sentence, "*things* are *thinks*."[1]

Solipsism, the theory that all is self, is a monism which maintains the identity of the cosmos and the individuality of the subjective organism; and in this sense Mr. McCrie speaks of "the barriers of personality."

There is a truth in the doctrine of solipsism which cannot be denied, for it has only to be understood to be recognised as a truth. The tree at which I now look is at this moment myself. All sensations, the prick of the pin not less than the light-impression of a distant star, are myself; they are the elements of my soul. They are substance of my substance and life of my life. And the ideas which have been distilled out of these sense-elements, my notions of the nature of things, of their interrelations, their import and usefulness, my ideals, demons and gods, all these are products of the activity of my self. Spider-like I spin them out of my own being. They, too, are parts of myself; but they are self-wrought. I am their creator and begetter. As we read in the Dhammapada, one of the most sacred books of Buddhism, "Self is the lord of self—who else should be the lord?"

This is the truth of solipsism which we do not deny

[1] See Dr. Robert Lewins's article, "The Unity of Thought and Thing," in *The Monist*, Vol. IV, No. 2.

and which we gladly recognise before criticising the onesidedness of its doctrines. This is the truth, but it is one side only of the truth, and we must look at the other side, too.

What does "self" mean? Let us beware of the use of words to which different people attach different meanings. Self in this respect is a most dangerous word. Let us define its various meanings and let us distinguish them.

The etymology of "*self*" (German *selb*, Gothic *silba*) is reported in our dictionaries to be doubtful; they agree, however, that the first part contains the reflex *se*, a root which appears also in *same*, while the last part, i. e. *lf*, on the authority of *Kluge*, is said to possibly mean "lord" or "master," the improbability of which (for the word *silb*, "possession," is Old Irish) *Kluge* seems to feel himself, for he adds in parenthesis, as if trying to justify his bold conjecture: "Thus Sanskrit *patis*, 'lord,' is etymologically the same as the Lithuanian *pats*, 'self.'" The most obvious explanation, it appears to me, would be the derivation of the *lf* from *life* (German *Leben*, "to live," and *Leib*, "living body," compare the Gothic *bilsiban*); and this explanation is so simple that I wonder why Kluge did not mention it, for it cannot have escaped him; there may be some objection to it unknown to me. At any rate the word "self" is used in the sense of the etymology from *se* and *life*; for in this all are agreed that it means "this same organism, or the person of whom we speak."

Now, Mr. McCrie maintains "the strict unity of the cosmos on the one hand, and of the individuality of the subjective organism on the other," and declares that "across the 'insuperable threshold' of self none can ever pass." Strange, however, that while, according to the doctrine of solipsism, nothing exists except self, which is my soul, my soul being my bodily organism, Dr. Lewins denies the immortality of the soul and insists upon its final annihilation in death. If *the All* be identified with *self*, or, in other words, if we choose to call the sum-total of all that exists "self," how can we escape the conclusion that there is no real death; that death is only an illusion, and that self must persist after death, for it is the All, and as such it is as indestructible as matter and energy.

The trouble with the word "self" is that it is used in various meanings, and being a term of extraordinary significance in philosophy, religion, ethics, and practical life, people regard their definition as a matter of faith; they do not consider it calmly and quietly, but when confronted with disagreeing opinions grow excited and are unable to discuss the subject on account of their very zeal, which, sincere though it is, beclouds their minds and does not allow them to understand themselves.

Self means our personality: thus far, as we have seen, all are agreed; but what is our personality?

Our personality has originated from sensations. Sensations, our experience teaches us, are commotions of what we call our body, which is an extremely complicated and differentiated system of living substance. When we say, "animal living substance is sentient," we mean that every sensation felt is the subjectively perceived condition of what objectively is, or might be seen to be, a motion; which motion may be due to an internal change or to an external impression.

The simplest living substances of which we know are those indifferentiated specks of sentient matter called amœbas, and scientists have spent a good deal of time and trouble in observing these mysterious creatures, which are representatives of the most primitive animal life.

All living substance is exposed to contact with its surroundings. There is water, there is the air, there are objects of various description. The impressions which they make upon sentient substance we call in a broad term "experience." Moreover, living substance itself is in a constant change. It absorbs the oxygen of the surrounding medium in which it lives, and removes the waste product of the oxidation. It assimilates other materials and discards what it cannot retain. Every impression causes a commotion, and every commotion leaves a permanent trace. The commotion, we assume, is felt, the feeling being exactly analogous to the form of the commotion, and its trace is a disposition to reproduce that feeling. The trace preserves in the living substance some of the essential features of the commotion, and when the trace is again excited by an irritation, of whatever kind it may be, the feeling experienced at the time of the original commotion is revived, although, it may be granted, weaker and dimmer. We observe that living substance shrinks from impressions which exercise a directly disturbing influence upon its structures, thus causing pain, and that it seeks those which gratify its wants, thus affording pleasure. How can these facts be otherwise interpreted than by the assumption of memory, which finds its obvious explanation in an endurance of the traces of former impressions?

According to the theory of evolution we assume that the beginning of the existence of our soul dates back to the first appearance of life upon earth. Every experience remains, every reaction leaves a vestige that is preserved and thus the form of life is more and more differentiated. The chicken that develops in the egg is, to explain the secret in a word, the product of memory. Its ancestors have received innumerable sense-impressions and reacted upon them in special ways. The entirety of the various memory traces which, in addition, by a selection of the fittest varia-

tions have developed into organs, constitute a system of organised structures, called the body of the creature which, when the shell breaks, creeps out ready made. The eye of the newly hatched chick with all that belongs to the eye presupposes that its ancestors exercised the function of seeing. Their seeing is here revived and their exertions are resurrected in a living presence.

In the same way man is born into the world as the product of the memory of his past: but in addition to the inherited structures of his existence, his personality receives the benefit of instruction by example as well as by education. The baby imbibes the ideas of his parents, teachers, and companions; and all the traces received in his impressible mind are embodied as living parts of his personality.

Whosoever you may be, my dear reader, do not be oblivious of the fact that your soul consists of the quintessence of many other souls who continue to live in you although their lives may have reached that consummation which we call death—so much dreaded by pusillanimous minds. What you call your self is the temporarily individualised presence of innumerable noble yearnings and immortal aspirations. Give up the conceit of a separate selfhood which flatters your vanity and sets you in a false position. Learn to comprehend the duties which the recognition of the nature of your being in its relation to your ancestors and to posterity imposes upon you. This wider conception of self is not only truer, it is also nobler, more aspiring and comforting. It liberates the individual from the narrowness of selfhood. You are the product of the past and you owe all you are to the past—nay, you are the past itself as it is changed into the present. And the future will be your work; you are responsible for it; nay, more than that: you will reap what you sow, for as you now are the past in its present incarnation, so you will also be the future that, according to your deeds, grows from the present. We build up our own souls and have to create our own immortality.

Such in brief are the facts, and we have now only to agree about the meaning of the name "self."

Shall we call "self" the original impressions with all they can mean? If we understand by a ray of light the ether-vibration—viz., the objective process—and also the physiological commotion together with its sensations, viz., the subjective product of the process, we can truly say that this is reality and there is nothing beyond. Self in that case is identical with the cosmos so far as the cosmos has impressed itself upon a sentient creature, and is, as it were, reflected in its soul.

Shall we call "self" the total organism in its temporary individual shape, the material of which it consists at a given time, its muscles and nerves, its heartbeats and longings, and its thoughts? This self certainly is a heap of attributes which are subject to a constant change. It will be dissolved and its elements will enter new combinations. The substance will assume new forms and its thoughts, too, will be transferred to other minds where they will be thought again and prove, if they be erroneous, a curse, and if they be true, a source of illimited blessings.

Shall we call "self" that, which, according to our notion, is the essential part of this organic system of matter, feelings, thoughts, and aspirations? Are there lower parts of self and higher parts of self? And are there perhaps also true and false, good and bad, healthy and diseased elements in our self. Does not this organism of ours often contain elements that are foreign to its normal and natural constitution? Are the bacilli a part of the organism, are they ingredients of the self, or are they intruders which are in conflict with the true self? If we thus distinguish in the organism itself foreign elements and hostile factors which cannot properly be called parts of the self, we must of course distinguish between self and not-self and can no longer, as Dr. Lewins proposes to do, identify self and the All.

There is another conception of "self," but I omit it here because Dr. Lewins and Mr. McCrie presumably agree with me that it is an illusion. It is the assumption of a metaphysical self which is supposed to be a being independent of the elements that constitute the self. It is the unity of a self conceived as an entity.[1] The assumption of a metaphysical self involves us in so many contradictions that its conception has been given up. A few isolated thinkers only still adhere to it, because, so it seems, they find comfort in the idea of considering the essence of the soul as intrinsically mysterious.

In practical life the word "self" is frequently used in contrast to all that which is not self, be it society or the world at large, including its various existences and its ordinances.

If we agree on the facts, the definition of words is a mere matter of convenience, and I cannot say that Dr. Lewins's and Mr. McCrie's terminology appeals to me as being useful. On the contrary, it confounds all issues and is liable to distort our comprehension of facts.

The very title of Mr. McCrie's article is misleading. He speaks of the barriers of personality, while in fact, there are no barriers to personality. He says "across the 'insuperable threshold' of self none can ever pass;" this statement denies the occurrence of one of the most

[1] I always understood Dr. Lewins to deny the reality of a metaphysical self, which is nothing but a hypostatisation of the unity of a personality; but there are a few remarks in Mr. McCrie's article which make me doubtful. Immortality truly must be "personal and individual" as Mr. McCrie says, for every preservation of soul is the preservation of some special, i. e. individual, and definite soul-structure. But the unity of a personality in its isolated separateness such as a man's self and bodily organism appears in the ego-consciousness has nothing to do with it.

undeniable facts—that of growth. As a matter of daily experience, every one of us, with a few rare exceptions, is constantly enlarging his self by new experiences. Evolution and progress mean nothing if they are not a crossing of the present threshold of our personalities and physical, mental, and moral growth of self. It is true that every growth is an addition to self and every crossing is a conquest. The new territory at once becomes the domain of self. In that sense, of course, self can never transcend its own existence. But if that is meant, how can solipsism deny the existence of anything that is not-self? Did the newly conquered territory rise into being out of the realms of non-existence?

Our self, as a separate limited being, the barriers of which cage us in like prisoners, does not exist. Says Dr. Lewins in a letter to the *Agnostic Journal* with reference to Goethe's rhapsody on nature:

> "All difficulties are got rid of by solipsismal Selfism, in which what Goethe says of 'nature holds good—viz., that we are 'unable to step out of her'—an assertion that Goethe, Dr. Carus, and the editor of this journal fail more or less completely to realise; as is the case also with Kant. For it really means 'out of the Self, or ego'—as Miss Naden writes of 'Nature' in her German poem *Das Ideal*:
>
> 'Doch was bist *Du*, als nur das Wiederhallen
> Vom alten Seelenklang?'"

This same Dr. Lewins who quotes Miss Naden's beautiful verse denies the immortality of the soul. It appears that he "fails more or less completely to understand" Miss Naden, for Miss Naden arrays herself on our side, not on the side of Dr. Lewins's solipsism, when she explains our self to be "the re-echoing of former soul-utterances."

If self alone were existent, the world of self, its sense-woven images, its ideas and aspirations would be meaningless. They would be dreams, and the question whether an idea is true or false would be a matter of no concern. True would be what suits the self, false what the self abhors. Of course, the ultimate criterion of truth lies in the agreement of all experiences among themselves, and thus every self carries in itself the touchstone of truth; but it is not the subjective element of self which affords the ultimate test, but the objective element, that feature of our experiences which is the same in the experiences of other selves, the formal element of existence which, when systematically formulated, appears in our thoughts as reason.

Mr. McCrie quotes approvingly Prof. T. H. Green's opinion that there are as many bridges as there are persons looking at the bridge; but is this not a conundrum, which, if the real state of things were not quite plain, would throw the whole world of thought into confusion? Let me ask Professor Green what he understands by a bridge, the sense-image which appears in the eye and which is seen to lie at a certain distance outside of the person's body, or that objective something, the presence of which is indicated in the vision of the bridge. There are—as a matter of course—as many bridge-images as there are persons looking at the bridge, but as to the thing itself, there is but one bridge, and any one who denies it tries to mystify himself and others.

Self, in the sense of the soul-structures which dominate our organism as the regulative element of our personality, is the noblest conception of self, and we may call it our true self. This self can be made immortal; it can be transferred into other selves and can, to adopt the simile of Miss Naden, echo in the future life of mankind through all the ages to come.

The self, in the sense of such soul-structures as depict faithfully the cosmos, cannot be identified with the All, but must be conceived as a part of the All. The very nature of self as a true representation of reality presupposes the existence of something beyond, and upon the correctness of the representation depends the intrinsic worth of self.

The self in the sense of an isolated existence which has to live in loneliness and to die in loneliness (a horrible idea!), a mystical soul-monad or an ego entity is an illusion, but the true self is the embodiment of truth, the incarnation of the Logos that pervades all existence, as that feature which we may call world-reason or the harmony of facts, it is the saviour from error and evil; it is the lord; indeed, it must be the lord. Who else shall be the lord? The true self is the appearance of the moral law in the flesh. It is the revelation of God. P. C.

BUDDHISM IN JAPAN.

BY NOBUTA KISHIMOTO, M. A.

VI. THE INFLUENCE OF BUDDHISM ON THE PEOPLE.

BUDDHISM, on the one hand, destroyed to a considerable extent the cheerful temperament of the Japanese people, while on the other hand, it deepened their thought and meditation. As we have seen in a preceding article, our early ancestors, before they came in contact with Buddhism, seem to have been very optimistic, fond of feasts and merry-making, and enjoying this earthly life to its utmost extent. They lived mainly in the present. They did not think about the past, while the fear of the future was not yet strong. Their religion was to live happily with gods and men in this present life. What they called sins were mostly what we now call ceremonial sins, sin being almost always identified with some sort of physical uncleanness. Even at present the Japanese are regarded as physically the most clean of all the peoples of the world. When Buddhism came, it taught the

sinfulness of passions, called attention to the evils and sorrows of the present life, and also set people a thinking about the existence both of the past and the future life.

Optimism tends to be shallow and superficial, while pessimism tends to be deep and thoroughgoing. Thus Buddhism changed the buoyant disposition of the early Japanese temperament into the contemplative mood we have now. This, in one sense, may be called one of the bad effects of Buddhism, but from another point of view this is one of its good effects. Men cannot always be satisfied with a cheap and wholesale optimism. Progress is impossible with such optimism, either in science or in art. Then, the deepening of the national temperament is one of the good effects of Buddhism, and this effect is particularly recognisable in the general tone of the Japanese literature.

Further, it is often said against Buddhism that monks and priests are idle and unprofitable members of the community, like drones living on the industry of others. This, in one sense, is true. But we must remember that if Buddhism introduced into Japan certain numbers of these "drones of society," it also introduced various arts, such as painting, sculpture, and architecture. These were the necessary accompaniments, so to speak, of Buddhism. Most of the famous paintings, sculptures, and buildings of the present Japan are religious, but principally Buddhistic. Moreover, the Buddhist monks and priests were not altogether idle and unprofitable. It is true that they were living on the gifts of the believers. But the Christian pastors, too, live on the gifts of the Christians, just as much as the Buddhist clergy do, yet no one calls them idle and unprofitable. Apart from their moral and religious functions, it was mostly the monks who, in their pilgrimages or in search of quiet spots, built roads and spanned bridges, thus making travelling and communication easy. It was often the monks who encouraged the people in the cultivation of the arts of peace and life. Often they themselves led the people in the transformation of the waste land into the fertile rice-fields. Thus, at least in Japan, the Buddhist clergy cannot be denounced as altogether idle and unprofitable.

It is said that Buddhism does not do justice to women, but at the same time it is a remarkable fact that Buddhism works against class-distinctions. It is generally admitted that Buddha had in view the male alone, at least when he first established his Order. According to original Buddhism, marriage is evil and there are two reasons for it. First, marriage means pleasure or satisfaction of desire, and as such it tends to indulgence. Secondly, it is the source of existence, the source of the "four miseries," birth, sickness, old age, and death. As women beguile men and lead them to indulgence and hell, they are regarded as more sinful than men. "Women are sinful," is the prevailing belief among the Japanese women themselves. But as Buddhism recognises no distinction of castes or classes anywhere, it is one of the strong equalising factors of society. All monks are on the same footing; the wealth and power of the family from which one comes has no influence in the Order. If anything distinguishes one monk from another, it is his virtue and wisdom. Worldly distinctions have nothing to do within the gates of the monastery. Not only within, but also without those gates, the influences of this strict teaching of equality was felt indirectly and yet quite powerfully. As in India, so in our feudal times, the separation between the castes or classes of the people was sharp and rigid. Confucianism favored this distinction, but Buddhism was against it, both in theory and in practice. It allowed anybody from any class to join the Order. It denounced worldly fame and prosperity as both illusive and delusive.

There are many instances in our history of priests and monks wielding worldly power and causing trouble in the politics of Japan. Unable to enter here into any detail I will quote two examples only. Towards the beginning of the twelfth century, an able and wise ex-Emperor is said to have declared almost in a desperate tone, "There is nothing I cannot do just as I wish, except three things, which are beyond my power, the eyes of dice, the flood of the Kamo river, and the monks of the monasteries." During the middle of the sixteenth century, that is, towards the close of the "age of wars," when the great General Nobunaga tried to pacify and consolidate the whole country of Japan, he found that the political influence of a party of the wealthy and worldly clergy was a great obstacle. This induced him, on one hand, to introduce Catholic Christianity and to break down the monasteries which were transformed into fortresses. These two facts may suffice to indicate how much political troubles were caused by the priesthood. But at the same time we must remember that it was this same Buddhist priesthood that preserved the learning and literature of the nation during the more than four hundred years of our disorderly and almost anarchical "age of wars." In those times all the soldiers and knights were occupied solely with their battles and intrigues, and the common people were partly too ignorant, partly did not enjoy the necessary ease and leisure. Thus the priests and monks, most of whom were free from all warlike professions and whose monasteries were situated in comparatively safe and quiet places, devoted themselves to the study of philosophy and literature, and this service of the Buddhist Orders to the Japanese civilisation ought to be properly recognised.

We have to add that in certain circles the Buddhist monks and priests are despised instead of being

respected. When a boy is very naughty, the worst and commonest threat on the part of the parents is to tell him, "If you do not improve, I will make of you a monk."

There are several reasons for this disrespect of the Japanese people towards the Buddhist clergy, the most important ones are as follows: As a rule, the great mass of the Buddhist clergy is supplied either by those boys who have nobody to help them, or by those boys who are too unruly to be kept at home in the family. To become a monk means not only to forsake the pleasures of the world, but also it means to be thrown out of society. Hence under ordinary circumstances nobody likes to become a monk or to send his children to a monastery. Thus the monks recruit themselves mostly from the lower classes, even criminals often being pardoned on the condition of becoming monks. Another reason is that while monks and priests are expected to be abstinent from intoxicating drinks and from eating fish, flesh, and vegetables with strong flavor, such as onion, leek, garlic, and the like, they are often accused of indulging in them. They are expected to abstain from all sorts of vices and impurities, but many of them commit deeds of which laymen would be ashamed. Even supposing they are not more immoral than laymen, they being monks and priests are for every fault doubly to blame, and if really more immoral, how much more! The phrases "fish-smelling monks" and "Doctors' intemperance and monks' immorality" are proverbial.

Notwithstanding these charges, we must admit the healthy influence of the Buddhist teachings of an earnest moral discipline and of universal charity. As to moral discipline, the educated people try to lead righteous lives in order to attain to wisdom and enlightenment, while the illiterate are anxious to escape the corporal punishment in the numberless hells. As to universal charity, the present Japanese owe a great deal to Buddhism. Temples and monasteries are asylums not only for men but also for birds and animals. Priests have often been the means of rescuing the lives of men doomed to death. Buddhism taught us to be kind and merciful to men, to animals and even to plants. Alms were freely and generously given not only to monks but also to beggars, and our charity has been carried to such an extreme that there are many beggars in Japan at present.

The love of flowers and sense for beauty among the Japanese cannot be said to have originated with Buddhism; it is inborn in the race. Yet there is no question that Buddhism elevated and refined our taste. In a word, Buddhism, while it pessimised the general tone of the Japanese mind, has also softened it and baptised it with the deep inspiring spirit of humanitarianism and love.

SCIENCE AND REFORM.

NORTHLAND VISITORS.

The result of the Mongolian war once more illustrates the meaning of Horace Walpole's remark that the Temple of Victory ought to be erected in a grove of Norway pines. For the last three thousand years the history of international contests has been a chronicle of wars ending with the victory of northern nations over their southern neighbors. Persia conquering Egypt, but vanquished by Greece, Greece by Rome, Rome by the iron-fisted barbarians of the Hercinian forest, Turkey by Russia, South-Spanish Moors by North-Spanish Goths, North Italian Savoy absorbing its southern neighbors, Prussia bullying Austria and finally attaining the *hegemony* of the German Empire, the same experience in a hundred variations, and curiously confirmed by the apparent exception of the South American war, where Chili, a high-latitude nation, overpowered her northern neighbors in a fair trial of strength. Is frost an indispensable factor of physical vigor? The study of biological evidences would hardly seem to justify that conclusion. In the frosty latitudes of both continents the giant cats of the tropics are represented only by the dwarfs of the feline species. North of the thirtieth parallel the ox-killing boa shrinks to the size of a mouse killing blacksnake, the tapirs and elephants are stunted into wild hogs, as the condors into carrion crows, and palms into grasses. Our next relatives, the frugivorous apes of the equatorial regions, would perish in a snow-storm, and their few northern congeners, the Gibraltar macaque and the Mexican marmoset barely exceed the size of a squirrel. Nor can we doubt that a winterless climate is perfectly compatible with the maximum physical strength of our species. Sesostris, who conquered "all Asia" to the northern limits of the Scythian steppes and Europe to the valley of the Danube, can hardly have commanded a nation of weaklings. Milo of Crotona would probably have floored the champions of the Visigoths and Teutons as easily as he stunned or killed his Thrasian rivals. The water-drinking 'longshoremen of the Turkish seaports are the stoutest bipeds of the modern world, and the key to the mystery of Norman conquests can be found in the circumstance that frost is an antidote and enables the inhabitants of the colder latitudes to indulge, with comparative impunity, in all sorts of dietetic vices that have palsied the sinews of their southern neighbors.

A CONSISTENT LIFE.

The career of Hermann von Helmholtz was a practical antithesis of that of thousands of mystics, who only two hundred years ago devoted a life-time to the pursuit of hyperphysical phantoms and were haunted by spooks like Spanish horses by gadflies. Professor Helmholtz was not a specialist in the narrow-minded sense of the word and did not permit his manifiold scientific labors to interfere with social duties and sanitary recreations, but he ignored supernaturalism as persistently as St. Gregory Thaumaturgus ignored the domain of physical science. With all his freedom from party bias he could be drawn into political controversies, but the moment the conversation turned on dogmatic questions he became silent or changed the topic with a frown of contemptuous impatience, and in all his voluminous writings there is not the slightest allusion to the established creed of his native land.

FIRE-STORMS.

There is a story of a Pennsylvania Quaker who, in the mild manner of his sect, remonstrated with the teamsters of a petroleum camp for spilling a hogshead of coal-oil on his hay-field. "The day of judgment, friends," said he, "may come suddenly, in spite of all our prayers, but there is, for all that, no sense in promoting the conflagration to this extent." The settlers of our northwestern lumber States could not have come nearer to a complete success, if they had taken a contract to prepare fuel for the flames of the *Dies Irae*. For hundreds of miles along the tracks

of the Minnesota and Michigan railways the woods are littered with piles of dry brushwood and resinous chips, which under the glare of the midsummer sun become almost as combustible as guncotton. To illustrate that fact, let any one dry an armful of pine brush or search his garret for the remnants of last year's Christmas tree and cram a dozen of the withered twigs into his chimney grate. Ten to one that the next minute he will hear the alarm-bells of the fire-department: the flames having shot up over the roof like the eruption of a volcano. By a very moderate estimate a billion tons of such fuel are scattered over our northern lumber States, and no eleventh-hour precaution can prevent the peril of an occasional conflagration. A camp-fire started by prowling tramps, or the spark of a locomotive, may ignite a pile of the parched brushwood, and a mere breath of wind will suffice to fan the first blaze into all-devouring flames. The vacuum created by the rising of the heated air is filled by whirlwinds, and with an unlimited supply of fuel the conflagration may spread on the wings of a tornado, like that which a week ago out-raced the express-train of the Minnesota Northern railway. In the extensive government forests of Northern Europe, tragedies of that sort are obviated by the careful removal of dead brushwood, as well as by the isolation system which surrounds a lumber-camp with a circle of incombustible leaf-trees. The demand for the enforcement of similar precautions has been silenced by bribes, but the laws of nature cannot be circumvented in that manner, and in the course of a few decades of similar improvidence the forest region of our northern border States may become as barren as the treeless hills of the Missouri Bad Lands.

TELL-TALE PHOTOGRAPHS.

Some of our metropolitan banks use "Kodaks," operated by a hidden expert, while handling the checks of suspicious customers; but a correspondent of the *Scientific American* describes a still more ingenious use of photography for the detection of crime. In the course of transit between New York and Louisiana, a package of bank-notes had been rifled of its contents, and one of the broken seals had been melted by the application of a smoking candle and re-sealed by thumb-pressure. With a view of identifying the thief, Mr. Carvalho, the detective of the responsible express company, took wax-impressions of the thumbs of all the officials through whose hands the consignment could possibly have passed. These impressions were then photographed on an enlarged scale, and one of them clearly agreed with the seal manual of a messenger who had evidently failed to study the possibilities of the Bertillon system.

CIRCUS ECHOES.

The idea of making history a mere date register of coronations and battles was quite foreign to the writers of antiquity—viz., the chatty chronicles of Livy and Suetonius,—but originated in the mediæval convent-schools, whose teachers could not afford to divulge details about the joyous public life of Greece and Rome. They might interlard their chronological lectures with allusions to the inhumanities of a despotic Cæsar but carefully abstained from mentioning his munificence in the endowment of public pleasure resorts, lest their pupils, like young Hazlitt, should come to the conclusion that those old heathens must have had more fun in a fortnight than a modern tithe-paying Christian in fourteen years.

F. L. Oswald.

BOOK NOTICES.

Small Talk About Business, by A. E. Rice, is a little book of sixty pages full of good common-sense advice for business people, There are about seventy points discussed, such as "Avoiding Speculation," "How to Win Credit," "Women Holding Property," "Teaching Wives the Ways of Business," "Teaching Children the Ways of Business," "Giving and Taking Receipts," "Examining Real Estate Titles," "How to Send Away Money," "Trifling With Signature," "Being Careful of Strangers," etc., all subjects being treated in a concise and practical way. (Fremont, Ohio: Fremont Publishing Co. 1892. Price, paper, 40 cents; cloth, 75 cents.)

AHASUERUS.

BY VOLTAIRINE DE CLEYRE.

Pale, ghostly Vision from the coffined years,
Planting the cross with thy world wandering feet,
Stern Watcher through the centuries' storm and beat,
In those sad eyes, between those grooves of tears,
Those eyes like caves where sunlight never dwells
And stars but dimly shine, stand sentinels
That watch with patient hope, through weary days,
That somewhere, sometime, He indeed may "come,"
And thou at last find thee a resting-place,
Blast-driven leaf of Man, within the tomb.

Aye, they have cursed thee with the bitter curse,
And driven thee with scourges o'er the world;
Tyrants have crushed thee, Ignorance has hurled
Its black anathema;—but Death's pale hearse
That bore them graveward, passed thee silently,
And vainly didst thou stretch thy hands and cry:
"Take me instead"; not yet for thee the time,
Not yet—not yet; thy bruised and mangled limbs
Must still drag on, still feed the Vulture, Crime,
With bleeding flesh, till rust its steel beak dims.

Aye, "till He come,"—He—Freedom, Justice, and Peace,
Till then shalt thou cry warning through the earth,
Unheeding pain, untouched by death and birth,
Proclaiming "Woe, woe, woe," till men shall cease
To seek for Christ within the senseless skies,
And, joyous, find Him in each others' eyes.
Then shall be builded such a tomb for thee
Shall beggar kings as diamonds outshine dew!
The Universal Heart of Man shall be
The sacred urn of "the accursed Jew."

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ON THE FUNDAMENTAL CONCEPTS OF ELECTROSTATICS (QUANTITY, POTENTIAL, CAPACITY, ETC.).[1]

BY PROF. ERNST MACH.

The task has been assigned me to develop before you in a popular manner the fundamental quantitative concepts of electrostatics—"quantity of electricity," "potential," "capacity," and so forth. It would not be difficult, even within the brief limits of an hour, to delight the eye with hosts of beautiful experiments and to fill the imagination with many varied conceptions. But we should, in such a case, be still far from a lucid and easy grasp of the phenomena. The means would still fail us for reproducing the facts accurately in thought—a procedure which for the theoretical and practical man is of equal importance. These means are the *metrical concepts* of electricity.

As long as the pursuit of the facts of a given province of phenomena is in the hands of a few isolated investigators, as long as every experiment can be easily repeated, the fixing of the collected facts by provisional description is ordinarily sufficient. But the case is altered when the whole world must make use of the results reached by many, as happens when the science acquires broader foundations and scope, and particularly so when it begins to supply intellectual nourishment to an important branch of the practical arts, and to draw from that province in return stupendous empirical results. Then the facts must be so described that individuals in all places and at all times can, from a few easily obtained elements, put the facts accurately together in thought, and reproduce them from the description. This is done with the help of the metrical concepts and the international measures.

The work which was begun in this direction in the period of the purely scientific development of the science, especially by Coulomb (1784), Gauss (1833), and Weber (1833), was powerfully stimulated by the requirements of the great technical undertakings manifested since the laying of the first transatlantic cable, and brought to a brilliant conclusion by the labors of the British Association, 1861, and of the Paris Congress, 1881, chiefly through the exertions of Sir William Thomson.

It is plain, that in the time allotted to me I cannot conduct you over all the long and tortuous paths which the science has actually pursued, that it will not be possible at every step to remind you of all the little precautions for the avoidance of error which the early steps have taught us. On the contrary, I must make shift with the simplest and rudest tools. I shall conduct you by the shortest paths from the facts to the ideas, in doing which, of course, it will not be possible to anticipate all the stray and chance ideas which may and must arise from prospects into the by-paths which we leave untrodden.

* * *

Here are two small, light bodies of equal size, freely suspended (Fig. 1), which we "electrify" either

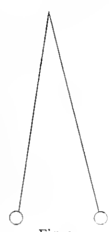

Fig. 1.

Fig. 2.

by friction with a third body or by contact with a body already electrified. At once a repulsive force is set up which drives the two bodies away from each other in opposition to the action of gravity. This force could accomplish anew the same mechanical work which was expended to produce it.[1]

Coulomb, now, by means of delicate experiments with the torsion-balance, satisfied himself that if the bodies in question, say at a distance of two centimetres, repelled each other with the same force with which a milligramme weight strives to fall to the ground, at half that distance, or at one centimetre, they would repel each other with the force of four milligrammes, and at double that distance, or at four centimetres, they would repel each other with the force

[1] A lecture delivered at the International Electrical Exhibition, in Vienna, on September 4, 1883.

[1] If the two bodies were oppositely electrified they would exert attractions upon each other.

of only one fourth of a milligramme. He found that the electrical force acts inversely as the square of the distance.

Let us imagine, now, that we had some means of measuring electrical repulsion by weights, a means which would be supplied, for example, by our electrical pendulums; then we could make the following observation.

The body A (Fig. 2) is repelled by the body K at a distance of two centimetres with a force of one milligramme. If we touch A, now, with an equal body B, the half of this force of repulsion will pass to the body B; both A and B, now, at a distance of two centimetres from K, are repelled only with the force of one-half a milligramme. But both together are repelled still with the force of one milligramme. Hence, *the division of electrical force* among bodies in contact *is a fact.* It is a useful, but by no means a necessary supplement to this fact, to imagine an electrical fluid present in the body A, with the quantity of which the electrical force varies, and half of which flows over to B. For, in the place of the new physical picture, thus, an old, familiar one is substituted, which moves spontaneously in its wonted courses.

Adhering to this idea, we define the *unit* of electrical quantity, according to the now almost universally adopted centimetre-gramme-second (C. G. S.) system, as that quantity which at a distance of one centimetre repels an equal quantity with unit of force, that is, with a force which in one second would impart to a mass of one gramme a velocity increment of a centimetre. As a gramme mass acquires through the action of gravity a velocity-increment of about 981 centimetres in a second, accordingly, a gramme is attracted to the earth with 981, or, in round numbers, 1000 units of force of the centimetre-gramme-second system, while a milligramme-weight would strive to fall to the earth with approximately the unit force of this system.

We may easily obtain by this means a clear idea of what the unit quantity of electricity is. Two small bodies, K, weighing each a gramme, are hung up by vertical threads, five metres in length and almost weightless, so as to touch each other. If the two bodies be equally electrified and move apart upon electrification to a distance of one centimetre, their charge is approximately equivalent to the electrostatic unit of electric quantity, for the repulsion then holds in equilibrium a gravitational force-component of approximately one milligramme, which strives to bring the bodies together.

Vertically beneath a small sphere suspended from the equilibrated beam of a balance a second sphere is placed at a distance of a centimetre. If both be equally electrified the sphere suspended from the balance will apparently be rendered lighter by the repulsion. If by adding a weight of one milligramme equilibrium be restored, each of the spheres contains in round numbers the electrostatic unit of electrical quantity.

In view of the fact that the same electrical bodies exert at different distances different forces upon one another, exception might be taken to the measure of quantity here developed. What kind of a quantity is that which now weighs more, and now weighs less, so to speak? But this apparent deviation from the method of determination commonly used in practical life, that by weight, is, closely considered, an agreement. On a high mountain a heavy mass also is less powerfully attracted to the earth than at the level of the sea, and if it is permitted us in our determinations to neglect the consideration of level, it is only because the comparison of a body with fixed conventional weights is invariably effected at the same level. In fact, if we were to make one of the two weights equilibrated on our balance approach sensibly to the centre of the earth, by suspending it from a very long thread, as Prof. von Jolly of Munich suggested, we should make the gravity of that weight, its heaviness, proportionately greater.

Let us picture to ourselves, now, two different electrical fluids, a positive and a negative fluid, of such nature that the particles of the one attract the particles of the other according to the law of the inverse squares, but the particles of the same fluid repel each other by the same law; in non electrical bodies let us imagine the two fluids uniformly distributed in equal quantities, in electric bodies one of the two in excess; in conductors, further, let us imagine the fluids mobile, in non-conductors immobile; having formed such pictures, we possess the conception which Coulomb developed and to which he gave mathematical precision. We have only to give this conception free play in our minds and we shall see as in a clear picture the fluid particles, say of a positively charged conductor, receding from one another as far as they can, all making for the surface of the conductor and there seeking out the prominent parts and points until the greatest possible amount of work has been performed. On increasing the size of the surface, we see a dispersion, on decreasing its size we see a condensation of the particles. In a second, non electrified conductor brought into the vicinity of the first, we see the two fluids immediately separate, the positive collecting itself on the remote and the negative on the adjacent side of its surface. In the fact that this conception reproduces, lucidly and spontaneously, all the data which arduous research only slowly and gradually discovered, is contained its advantage and scientific value. With this, too, its value is exhausted. We must not seek in nature for the two hypothetical fluids which we have added as simple mental adjuncts, if we would not go

astray. Coulomb's view may be replaced by a totally different one, for example, by that of Faraday, and the most proper course is always, after a general survey is obtained, to go back to the actual facts, to the electrical forces.

We will now make ourselves familiar with the concept of electrical quantity, and with the method of measuring or estimating it. Imagine a common Leyden jar (Fig. 3), the inner and outer coatings of which are connected together by means of two common metallic knobs placed about a centimetre apart. If the inside coating be charged with the quantity of electricity $+q$, on the outer coating a distribution of the electricities will take place. A positive quantity almost equal[1] to the quantity $+q$ flows off to the earth, while a corresponding quantity $-q$ is still left on the outer coating. The knobs of the jar receive their portion of these quantities and when the quantity q is sufficiently great a rupture of the insulating air between the knobs, accompanied with the self-discharge of the jar, takes

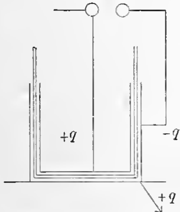

Fig. 3.

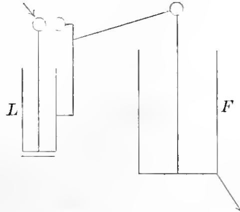

Fig. 4.

place. For any given distance and size of the knobs, a charge of a definite electric quantity q is always necessary for the spontaneous discharge of the jar.

Let us insulate, now, the outer coating of a Lane's unit jar L, the jar just described, and put in connexion with it the inner coating of a jar F exteriorly connected with the earth (Fig. 4). Every time that L is charged with $+q$, a like quantity $+q$ is collected on the inner coating of F, and the spontaneous discharge of the jar L, which is now again empty, takes place. The number of the discharges of the jar L furnishes us, thus, with a measure of the quantity collected in the jar F, and if after 1, 2, 3, . . . spontaneous discharges of L the jar F is discharged, it is evident that the charge of F has been proportionately augmented.

Let us supply now, to effect the spontaneous discharge, the jar F with knobs of the same size and at the same distance apart as those of the jar L (Fig. 5). If we find, then, that five discharges of the unit jar take place before one spontaneous discharge of the jar F occurs, plainly the jar F, for equal distances between the knobs of the two jars, equal striking distances, is able to hold five times the quantity of electricity that L can, that is, has five times the *capacity* of L.[1]

1 The quantity which flows off is in point of fact less than q. It would be equal to the quantity q only if the inner coating of the jar were wholly encompassed by the outer coating.

We will now replace the unit jar L, with which we measure electricity, so to speak, *into* the jar F, by a Franklin's pane, consisting of two parallel flat metal plates (Fig. 6), separated only by air. If here, for example, thirty spontaneous discharges of the pane are sufficient to fill the jar, ten discharges will be found sufficient if the air-space between the two plates be filled with a cake of sulphur. Hence, the capacity of a Franklin's pane of sulphur is about three times greater than that of one of the same shape and size made of air, or, as it is

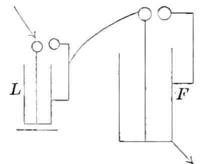

Fig. 5.

the custom to say, the specific inductive capacity of sulphur (that of air being taken as the unit) is about 3.[2] We are here arrived at a very simple fact, which shows us clearly the significance of the number called *dielectric constant*, or *specific inductive capacity*, the knowledge of which is so important for the theory of submarine cables.

Let us consider a jar A, which is charged with a certain quantity of electricity. We can discharge the

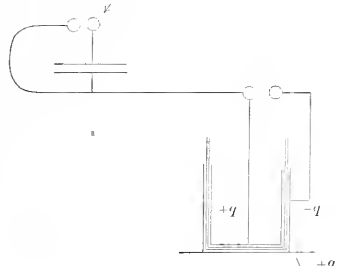

Fig. 6.

jar directly. But we can also discharge the jar A (Fig. 7) partly into a jar B, by connecting the two

1 Rigorously, of course, this is not correct. First, it is to be noted that the jar L is discharged simultaneously with the electrode of the machine. The jar F, on the other hand, is always discharged simultaneously with the outer coating of the jar L. Hence, if we call the capacity of the electrode of the machine E, that of the unit jar L, that of the outer coating of L, A, and that of the principal jar F, then this equation would exist for the example in the text: $(F+A)/(L+E)=5$. A cause of further departure from absolute exactness is the residual charge.

2 Making allowance for the corrections indicated in the preceding footnote, I have obtained for the dielectric constant of sulphur the number 3.2, which agrees practically with the results obtained by more delicate methods. For the highest attainable precision one should by rights immerse the two plates of the condenser first wholly in air and then wholly in sulphur, if the ratio of the capacities is to correspond to the dielectric constant. In point of fact, however, the error which arises from inserting simply a plate of sulphur that exactly fills the space between the two plates, is of no consequence.

outer coatings with each other. In this operation a portion of the quantity of electricity passes, accompanied by sparks, into the jar B, and we now find both jars charged.

It may be shown as follows that the conception of a constant quantity of electricity can be regarded as the expression of a pure fact. Picture to yourself any sort of electrical conductor (Fig. 8); cut it up into a large number of small pieces, and place these pieces by means of an insulated rod at a distance of one centimetre from an electrical body which acts with unit of force on an equal and like-constituted body at the same distance. Take the sum of the forces which this last body exerts on the single pieces of the conductor. The sum of these forces will be the quantity of electricity on the whole conductor. It remains the same, whether we change the form and the size of the conductor, or whether we bring it near or move it away from a second electrical conductor, so long as we keep it insulated, that is, do not discharge it.

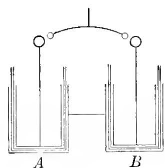

Fig. 7.

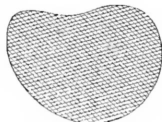
Fig. 8.

A basis of reality for the notion of electric quantity seems also to present itself from another quarter. If a current, that is, in the usual view, a definite quantity of electricity per second, is sent through a column of acidulated water; in the direction of the positive stream, hydrogen, but in the opposite direction, oxygen is liberated at the extremities of the column. For a given quantity of electricity a given quantity of oxygen appears. You may picture the column of water as a column of hydrogen and a column of oxygen, fitted into each other, and may say the electric current is a chemical current and *vice versa*. Although this notion is more difficult to adhere to in the field of statical electricity and with non-decomposable conductors, its further development is by no means hopeless.

The concept quantity of electricity, thus, is not so aerial as might appear, but is able to conduct us with certainty through a multitude of varied phenomena, and is suggested to us by the facts in almost palpable form. We can collect electrical force in a body, measure it out with one body into another, carry it over from one body into another, just as we can collect a liquid in a vessel, measure it out with one vessel into another, or pour it from one into another.

For the analysis of mechanical phenomena, a metrical notion, derived from experience, and bearing the designation *work*, has proved itself useful. A machine can be set in motion only when the forces acting on it can perform work.

Let us consider, for example, a wheel and axle (Fig. 9) having the radii 1 and 2 metres, loaded respectively with the weights 2 and 1 kilogrammes. On turning the wheel and axle, the 1 kilogramme-weight, let us say, sinks two metres, while the 2 kilogramme-weight rises one metre. On both sides the product

$$\overset{\text{KGR.}}{1} \times \overset{\text{M.}}{2} = \overset{\text{KGR.}}{2} \times \overset{\text{M.}}{1}.$$

is equal. So long as this is so, the wheel and axle will not move of itself. But if we take such loads, or so change the radii of the wheels, that this product (Kgr. $\times$ metre) on displacement is in excess on one side, that side will sink. As we see, this product is characteristic for mechanical events, and for this reason has been invested with a special name, *work*.

In all mechanical processes, and as all physical processes present a mechanical side, in all physical processes, work plays a determinative part. Electrical forces, also, produce only changes in which work is performed. To the extent that forces come into play in electrical phenomena, electrical phenomena, be they what they may, extend into the domain of mechanics and are subject to the laws which hold in this domain. The universally adopted measure of work, then, is the product of the force into the distance through which it acts, and in the C. G. S. system, the unit of work is the action through one centimetre of a force which would impart in one second to a gramme-mass a velocity-increment of one centimetre, that is, in round numbers, the action through a centimetre of a pressure equal to the weight of a milligramme. From a positively charged body, electricity, yielding to the force of repulsion and performing work, flows off to the earth, providing conducting connexions exist. To a negatively charged body, on the other hand, the earth under the same circumstances gives off positive electricity. The electrical work possible in the interaction of a body with the earth, characterises the electrical condition of that body. We will call the work which must be expended on the unit quantity of positive electricity to raise it from the earth to the body K the *potential* of the body K.[1]

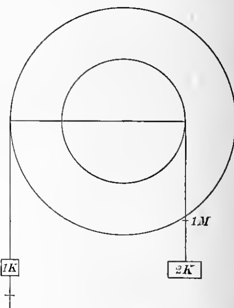

Fig. 9.

[1] As this definition in its simple form is apt to give rise to misunderstandings, elucidations are usually added to it. It is clear that we cannot lift a

We ascribe to the body K in the C. G. S. system the potential $+1$, if we must expend the unit of work to raise the positive electrostatic unit of electric quantity from the earth to that body; the potential -1, if we gain in this procedure the unit of work; the potential 0, if no work at all is performed in the operation.

The different parts of one and the same electrical conductor in electrical equilibrium have the same potential, for otherwise the electricity would perform work and move about upon the conductor, and equilibrium would not have existed. Different conductors of equal potential, put in connexion with one another, do not exchange electricity any more than bodies of equal temperature in contact exchange heat, or in connected vessels, in which the same pressures exist, liquids flow from one vessel to the other. Exchange of electricity takes place only between conductors of different potentials, but in conductors of given form and position a definite difference of potential is necessary for a spark, that has to pierce the insulated air, to pass between them. [TO BE CONCLUDED.]

quantity of electricity to K, without changing the distribution on K and the potential on K. Hence, the charges on K must be conceived as fixed, and so small a quantity raised that no appreciable change is produced by it. Taking the work thus expended as many times as the small quantity in question is contained in the unit of quantity, we shall obtain the potential. The potential of a body K may be briefly and precisely defined as follows: If we expend the element of work dW to raise the element of positive quantity dQ from the earth to the conductor, the potential of a conductor K will be given by $V = dW/dQ$.

"ACHILLES AND THE TORTOISE."

BY R. N. FOSTER.

In *The Open Court* of September 13 appears a closely reasoned article on the above-named topic, which has long been a source of puzzling interest to students of physics and metaphysics. If the virtue of a puzzle lies in its provoking many to try for its solution, this puzzle of Zeno is of supreme virtue. The names of the great thinkers, who from Aristotle to Mill, have discussed this problem (a few of whom are mentioned in Mr. Shipman's article), are sufficient evidence on this point.

I aim not to disprove what Mr. Shipman has written, but to show that there are other methods than his whereby a solution is possible.

Let me say first that there is no fallacy in the statement (nor any "metaphysics" either) that Achilles cannot overtake the tortoise *on the terms governing the race.*

And secondly, that there is equally no fallacy in saying that Achilles can overtake the tortoise.

Both statements are simply and demonstrably true, and require but a moderate amount of "ciphering" to exhibit the fact.

And finally, for I wish to state all the conclusions first, that my reader may see the goal and follow me to it with clear sight and open eye,—finally, Zeno does not disprove the possibility of motion by his example, but, on the contrary, establishes it, having first assumed it, and then grounded all his argument upon it.

I will ask the reader to sum up in brief terms the three points to be made evident in this paper:

I. Zeno was right. II. Zeno was wrong. III. Zeno proved nothing in either case.

To make it very easy, let us demand that Achilles shall run two miles an hour, and the tortoise one, and that the tortoise shall have one mile the start. Now the terms of the race are wonderfully important—they are the *very essence* of the problem—and they are as follows: When Achilles has run the first mile, he is where the tortoise was when both commenced to run; right at this point, I, the judge, am to decide the result. Well, Achilles is now half a mile behind the tortoise. I mark the position of both, without interrupting the race, which goes merrily on. When Achilles has run this half mile that he lacked at the first marking, the tortoise is a quarter of a mile ahead. When Achilles gains this quarter mile, the tortoise is one-eighth of a mile ahead, and the judge scores again. And so on. The tortoise at every score is to be found just half as far ahead as he was at the preceding score. But Achilles has not overtaken him.

And why?

Because Achilles has not run long enough. That is the whole mystery. And by the implied terms of the race, implied in the method or rule of scoring arbitrarily imposed, he will not be allowed to run long enough to cover the original and the acquired distance between him and his competitor. He is scored against first when he has run one mile in one-half an hour; next, when he has run a half-mile in a quarter of an hour; then when he has run a quarter-mile in one eighth of an hour, and then when he has run an eighth of a mile in one-sixteenth of an hour; and so on. It is evident that Achilles is beaten. He is at length reduced to gaining an infinitesimal space in an infinitesimal time—which words, we may say, are an effort to express the inexpressible—but he is never permitted to run two miles or to stay an hour on the track.

For the minute distances added diminish by this law that they must always leave half the distance undone. The sum of such distances always approach to unity, but never can reach it. Achilles was beaten at the first score, just as truly as at the last. He was beaten by the terms of the race in plain figures before he started. *Therefore, Zeno was right.*

But now, let us permit Achilles and the tortoise to run for an hour—for just one plain sixty minutes—and then see what will happen. Inasmuch as Achilles runs two miles in that hour, and the tortoise one mile; and inasmuch as the tortoise had one mile the start of Achilles, it is obvious that at the exact end of one

hour Achilles will have run two miles, and the tortoise one mile, which added to his mile of advantage, will give him two miles also. Therefore he and Achilles will be exactly abreast. Achilles will have overtaken the tortoise. *And Zeno was wrong.*

If Zeno meant to affirm that no one body in motion could ever overtake another body moving at a slower rate, but having a definite "start" (however small), both bodies to move along the same path, no one need hesitate to contradict him flatly. Only by "keeping the score" according to the method above outlined can such an affirmation be sustained.

If we allow the tortoise only an infinitesimal advantage, and allow Achilles to run a billion times as fast as the tortoise, still the latter will win. Forgetting the terms of the race, this looks like a proof that motion is impossible, even the smallest. But the fallacy is shown above.

It will also be clear from what has been said that the difficulty of the problem does not arise from any latent conflict in its terms between the potential and the actual, or between the finite and the infinite; or between the physical and the metaphysical. The terms involved are all finite and actual and physical. It is a plain question of division and addition. The trick is so to divide the number one into a diminishing and regular series of factors that the whole number shall never be reached by adding these factors together again. This is done at once by requiring that the series shall be $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, and so on—not *ad infinitum*, for no infinitum can be reached in this way, but so long as you can keep it up without exhaustion. In fact the condition is made at the outset, in set terms, that the number shall *not* be exhausted at any term of the process, but that some definite fraction of the remainder shall always be left. Zeno's pregnant apothegm, that to say a thing once is to say it forever, is numerically exhibited in such a series. To fail in the first division, say from the half to the quarter, is to fail in the next and for ever.

On no other conditions is it true that Achilles cannot overtake the tortoise.

He is tricked out of the *time* necessary to accomplish the feat, and that is all the mystery there is in it.

We may be permitted to vary the puzzle. A grocer says to his man, "John empty that barrel of sugar," John dumps it forthwith, and the command is fulfilled. But now if the grocer had said, "John, empty that barrel by first throwing out one half, then half of the remaining half, then half of the remainder again, and always only half of the remainder; it is clear that John will *never* empty the barrel. The imposed conditions render the feat impossible.

Now this does not prove the impossibility of emptying barrels; neither does Zeno's case prove either the possibility or the impossibility of motion. This is our third proposition.

There is a parallel paradox in the saying that since a body cannot move where it is, and cannot move where it is not, therefore it cannot move at all. The fallacy here is grounded in an oversight. Everybody knows that the premises are somehow true, and equally well that the conclusion is false. But everybody does not notice that a body in motion does not move either where it is or where it is not, but that it is in a state of change, the change consisting in the very act of going *from* where it is, and *to* where it is not. In other words, motion is not rest. It is only during rest that a body exists where it is. Motion means the cessation of this rest.

But this is a digression. The question remains, Has Zeno proved the possibility of motion, or its impossibility, by his paradox, or by any other process of thinking? He has not. He has assumed motion and all of its implications—velocity, direction, time, and space—and has shown us that a man running two miles an hour cannot make two miles in less than an hour. And that is all that the example proves.

But now, is there no significance whatever in the argument? Is there no meaning in the problem—no use in the solution of it—no ground from which it legitimately arises?

The race between Achilles and the tortoise may indeed be no more than a skilfully devised 13–14–15 puzzle in value.

But the problem involved, Is MOTION POSSIBLE? has a very substantial ground, deep meaning, and very serious consequences.

So far as we know, Zeno himself did not apprehend clearly, nor did any of the Greek philosophers, the true ground of the question. But he felt the pressure of the problem, nevertheless, when confronted by some of the implications of motion.

So long as those philosophers were content to accept naïvely the physical conception of space and time, or a conception grounded in plain physics, so long all was harmony in their thought-world. But when the effort was made to determine more exactly and clearly the nature of space and time, and when some of the metaphysical aspects thereof intruded themselves, the skies grew cloudy. It was the undeveloped metaphysics of space and time that made the Greek conception of them unsatisfactory, unclear, and troubled. This throws doubt on all our conceptions of motion, as that which can only occur through space and during time. What Zeno and his immediate successors thought about these matters, we have no means of knowing; but that the very doubt of the possibility of either motion or change of any kind could possibly arise in the Greek mind, reveals the presence of a

metaphysical upheaval more or less complete. Otherwise no such doubt is possible.

How did such a question arise, and what is the essence of it?

It arises from the necessity imposed upon thought of thinking itself and its objects over and over again, always with the intent of attaining to clearer and completer knowledge. The process invariably uncovers defects in primary conceptions, and introduces a conflict between these and their inevitable successors. Thus arises the question: Now what is the essence of it?

The essence of it is, What is the true nature of space and time?

Is space a void, a mere emptiness, a nothing?

Is it a material substance?

Is it, our own capacity of thinking, an outer void?

Many more such questions can be asked, but these must suffice for the present purpose.

But it is manifest that if we answer these questions in one way, physical motion, as ordinarily conceived, is the real truth of nature. While if we answer them in another way, such conception is founded on an illusion, not unlike that which leads us to say that the sun rises and sets, when we know that it does not; and the truth of nature is all changed in a twinkling. Nature *appears* indeed to our senses as a multitude of objects moving through spaces and during times.

But this is only phenomenon—appearing. To thought it cannot be so in very truth. To thought no such movement is possible—at least not without an interpretation. This may indeed be such a world as it appears to be on first impression, a world of material objects in motion through space and during time. But the question is possible, May it not be a power, no less genuine and real, such that it appears through our sense-consciousness so to move? In this latter case, crude physical motion becomes a mere phenomenon, and if taken for the genuine truth, an illusion. Motion in this case is not physical, but metaphysical. The consequences are of the gravest kind. Zeno's problem is full of meaning.

SCIENCE A RELIGIOUS REVELATION.

Richard T. Ely, known as the author of *Socialism* and *Social Reform*, begins an article on the "Fundamental Beliefs in His Social Philosophy," published in the present number of *The Forum* with these paragraphs:

"A scientific person dislikes creeds. Science is not religious revelation but a progressive unfolding of truth. When I am asked, 'What is your social creed?' I naturally reply, 'I have no creed.' When the editor of *The Forum* asks me for an article on my creed, I am obliged to answer that I have none. What have I to do with a creed in economics or, more strictly speaking, general sociology? For it is in reality a sociological creed that is wanted.

"Yet more mature thought reveals to the man of science that he may after all go too far in his opposition to a statement of his opinions. As the result of his studies, and, in a case like the present, also of his experiences in life, he may have reached certain conclusions of value to others. There may be no impropriety in a statement of these conclusions provided it is understood that he reserves the right to change his opinions if longer investigation and riper experience reveal mistakes."

The adherents of all religions, without exception, believe that their confession of faith is the best formulation of truth obtainable; and we may safely define the religion of a man as his aspiration of living in agreement with his conception of truth. The idea of a creed which by its devotees is not identified with the truth is an absurdity. If, then, science *is* as Professor Ely says, "a progressive unfolding of truth," science necessarily is a religious revelation, and if there are people who deny the religious character of science, they can do it solely on the ground that science is not supposed to be capable of unfolding the truth and that truth must be attained through other channels, such as intuition, ecstatic visions, or extra and contra-natural revelations.

Professor Ely says: "A scientific person dislikes creeds." Good. But is there any religious or irreligious person who regards the acceptance of a creed as a religion? If there are they are wrong. There are people who think, that because most religions have creeds, all religions must have creeds. But obviously, the religion of Buddha in its purest form has no creed. Buddha in his dying hour enjoins his disciples not to follow the authority of any one, not even of himself, the master, but to exert themselves to find the truth by their own experience. Can we call the doctrines of Buddha a creed? But even if all the religions in existence were creeds, creed cannot be considered an essential element in religion. Creeds, ceremonies, and modes of worship are the husks only of religion, the kernel which they cover is man's hunger after truth and righteousness. If there are no creedless religions, the duty devolves upon us to create one.

All truth is sacred. He who trusts in truth and regards truth as the saviour that alone can afford enduring salvation; he who endeavors to find the truth with the best, most rigorous and painstaking means at his disposal—and the best means for accuracy and reliability that are at the disposal of mankind are commonly comprehended under the name of science—he who is fearless in accepting the truth and not ashamed of changing his opinion whenever weighty arguments convince him of error; he who leads a life of truth and remains faithful to the noblest of his convictions, is (whether he adopts the name or not) an adherent of the Religion of Science.

Science, i. e., the mere search for knowledge and the knowledge acquired, is not as yet religion, but be-

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ing a gradual unfoldment of truth (unfoldment is but another word for revelation), science can—or, better, must—enter into our religious conviction as one of its most important elements. In fact, all religions are constantly being purified by the wholesome influence of science. Science must be the regulator of those of our ideas and principles—or maxims—which ultimately determine all our actions. It must be recognised as the basis of the moral development of our lives—in a word, science must become a religious factor.

He who understands the signs of the times can see the straws in the wind which indicate the direction of religious progress. We can, visibly to our eyes and audibly to our ears, observe in all our churches, and especially in the most orthodox ones, a broadening of the spirit of toleration and a mental growth affording more breadth and a greater depth to our religious sympathies. The old prejudices are giving way to a better comprehension; the narrowest minds are struggling to free themselves from their sectarianism, and a latitudinarian conception, far from being repudiated or denounced, as formerly it was, has become the common ideal of all denominations.

Having abandoned the old metaphysical speculations, and having discovered the hollowness of ontological systems, many scientists are inclined to surrender philosophy as a hopeless task and a futile chase after an *ignis fatuus*. In the same way, having come to the conclusion that creeds are unverifiable and even irrational assumptions, many honest searchers for truth reject religion as a vagary of the human mind. But both are mistaken. The vagaries of the past render neither philosophy nor religion impracticable. What we need in philosophy is a philosophy of science. What we need in religion is a religion of science.

The philosophy of science abstains from building ontological air-castles, but attempts to construct a world-conception on the basis of the truths established by science.[1] And the religion of science proposes to regard science not only as *a* but as *the* religious revelation. Science—I mean genuine science and not the vagaries of sundry scientists—is holy, and the voice of science is divine. If God ever spoke to man, science is the fiery bush; and if there is any light by which man can hope to illumine his path so as to make firm steps, it is the light of science.

Let us, therefore, make religion scientific and science religious. Let us, on the one hand, imbue religion with the spirit of science, with its rigorous criticism, strict exactness, and stern devotion to truth; and on the other hand, let us open our eyes to the moral and religious importance of the results of scientific inquiry. The ultimate aim of science is to reveal to man the religion of truth.

Rituals and symbols, nay, the very names of religious denominations, may vary according to historical tradition, taste, and individual opinion, but the essence of religion can only be one, and must remain one and the same among all nations, in all climes, and under all conditions. The sooner mankind recognises what this essence of religion is, the better it will be for human welfare, progress, and international relations. The realisation of the religious ideal alone will bring glory to God in the highest and peace on earth towards the men of good-will.

[1] For an exposition of the details of this view, especially as to how the philosophy of science has to derive the principles of scientific inquiry from the facts of experience, without forgetting the difference between mental operations and sense-impressions, see my *Primer of Philosophy*.

THE TRYST.

BY CHARLES ALVA LANE.

Of old time Grief met Joy beside the sea,
Where day ebbed off in sunset's foamy light:
Joy westward wending, fleeing from the night;
Grief forward faring, wan and wearily,
Toward the glooming east of memory.
"O, doleful sister!" quoth the radiant sprite,
"Are we no more to meet in dark or bright,
While all the seasons live that are to be?"

"Yea, where the Poet dreams be place of tryst
To mix our loves whom fate doth part," she said;
"So shall my tears, by thy effulgence kissed,
Be kindled into rainbows 'round his head,
Till through the song ambiguous beauty wiles
To sighing ecstasies and yearning smiles."

NOTES.

The famous passage quoted at the end of the editorial article runs, in the King James translation of the Bible: "Glory to God in the highest, and on earth peace, good-will toward men." This verson is based upon the following reading:

"Δόξα ἐν ὑψίστοις θεῷ καὶ ἐπὶ γῆς εἰρήνη, ἐν ἀνθρώποις εὐδοκία."

Another version, however, which omits the comma and reads εὐδοκίας is among scholars considered as more probably correct and has been adopted in the Cambridge edition of the Greek text (published by Macmillan & Co.) so that the latter part of the sentence would have to be translated "And peace upon earth towards the men of good-will"—or literally "in the men of good-will."

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ON THE FUNDAMENTAL CONCEPTS OF ELECTROSTATICS (QUANTITY, POTENTIAL, CAPACITY, ETC.).[1]

BY PROF. ERNST MACH.

[CONCLUDED.]

On being connected, every two conductors assume at once the same potential. With this the means is given of determining the potential of a conductor through the agency of a second conductor especially adapted to this purpose called an electrometer, just as we determine the temperature of a body with a thermometer. The values of the potentials of bodies obtained in this way simplify vastly our analysis of their electrical behavior, as will be evident from what has been said.

Think of a positively charged conductor. Double all the electrical forces exerted by this conductor on a point charged with unit quantity, that is, double the quantity at each point, or what is the same thing, double the total charge. Plainly, equilibrium still subsists. But carry, now, the positive electrostatic unit towards the conductor. Everywhere we shall have to overcome double the force of repulsion we did before, everywhere we shall have to expend double the work. By doubling the charge of the conductor a double potential has been produced. Charge and potential go hand in hand, are proportional. Consequently, calling the total quantity of electricity of a conductor Q and its potential V, we can write: $Q = CV$, where C stands for a constant, the import of which will be understood simply from noting that $C = Q/V$.[2] But the division of a number representing the units of quantity of a conductor by the number representing its units of potential tells us the quantity which falls to the share of the unit of potential. Now the number C here we call the capacity of a conductor, and have substituted, thus, in the place of the old relative determination of capacity, an absolute determination.[3]

In simple cases the connexion between charge, potential, and capacity may be easily ascertained. Our conductor, let us say, is a sphere of radius r, hung up free in a large body of air. There being no other conductors in the vicinity, the charge q will then distribute itself uniformly upon the surface of the sphere, and simple geometrical considerations yield for its potential the expression $V = q/r$. Hence, $q/V = r$; that is, the capacity of a sphere is measured by its radius, and in the C. G. S. system in centimetres.[1] It is clear also, since a potential is a quantity divided by a length, that a quantity divided by a potential must be a length.

Imagine (Fig. 10) a jar composed of two concentric conductive spherical shells of the radii r and r_1, having only air between them. Connecting the outside sphere with the earth, and charging the inside sphere by means of a thin, insulated wire passing through the first, with the quantity Q, we shall have $V = (r_1 - r)/(r_1 r)\, Q$, and for the capacity in this case $(r_1 r)/(r_1 - r)$, or, to take a specific example, if $r = 16$ and $r_1 = 19$, a capacity of approximately 100 centimetres.

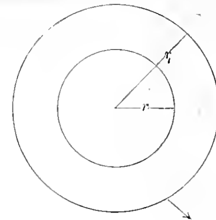

Fig. 10.

We shall now use these simple cases for illustrating the principle by which capacity and potential are determined. First, it is clear that we can use the jar composed of concentric spheres with its known capacity as our unit jar and by means of this ascertain, in the manner above laid down, the capacity of any given jar F. We find, for example, that 37 discharges of this unit jar of the capacity 100, just charges the jar investigated at the same striking distance, that is,

1 A lecture delivered at the International Electrical Exhibition, in Vienna, on September 4, 1883.

2 In this article the solidus or slant stroke is used for the usual fractional sign of division. Where plus or minus signs occur in the numerator or denominator, brackets or a vinculum is used.—*Tr.*

3 A sort of agreement exists between the notions of thermal and electrical capacity, but the difference between the two ideas also should be carefully kept in mind. The thermal capacity of a body depends solely upon that body itself. The electrical capacity of a body K is influenced by all bodies in its vicinity, inasmuch as the charge of these bodies is able to alter the potential of K. To give, therefore, an unequivocal significance to the notion of the capacity (C) of a body K, C is defined as the relation Q/V for the body K in a certain given position of all neighboring bodies, and during connexion of all neighboring conductors with the earth. In practice the situation is much simpler. The capacity, for example, of a jar, the inner coating of which is almost enveloped by its outer coating, communicating with the ground, is not sensibly affected by charged or uncharged adjacent conductors.

1 These formulæ easily follow from Newton's theorem that a homogeneous spherical shell, whose elements obey the law of the inverse squares, exerts no force whatever on points within it but acts on points without as if the whole mass were concentrated at its centre. The formulæ next adduced also flow from this proposition.

at the same potential. Hence, the capacity of the jar investigated is 3700 centimetres. The large battery of the Prague physical laboratory, which consists of sixteen such jars, all of nearly equal size, has a capacity, therefore, of something like 50,000 centimetres, or the capacity of a sphere, a kilometre in diameter, freely suspended in atmospheric space. This remark distinctly shows us the great superiority which Leyden jars possess for the storage of electricity as compared with common conductors. In fact, as Faraday pointed out, jars differ from simple conductors mainly by their great capacity.

For determining potential, imagine the inner coating of a jar F, the outer coating of which communicates with the ground, connected by a long, thin wire with a conductive sphere K placed free in a large atmospheric space, compared with whose dimensions the radius of the sphere vanishes. (Fig. 11.) The jar and the sphere assume at once the same potential. But on the surface of the sphere, if that be sufficiently far removed from all other conductors, a uniform layer of electricity will be found. If the sphere, having the

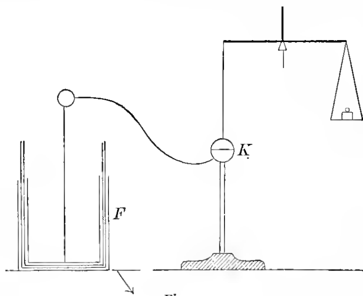

Fig. 11.

radius r, contains the charge q, its potential is $V=q/r$. If the upper half of the sphere be severed from the lower half and equilibrated on a balance with one of whose beams it is connected by silk threads, the upper half will be repelled from the lower half with the force $P=q^2/8r^2=\frac{1}{8}V^2$. This repulsion P may be counterbalanced by additional weights placed on the beam-end, and so ascertained. The potential is then $V=\sqrt{8P}$.[1]

That the potential is proportional to the square root of the force is not difficult to see. A doubling or trebling of the potential means that the charge of all the parts is doubled or trebled; hence their combined power of repulsion quadrupled or nonupled.

Let us consider a special case. I wish to produce the potential 40 on the sphere. What additional weight must I give to the half sphere in grammes that the force of repulsion shall maintain the balance in exact equilibrium? As a gramme weight is approximately equivalent to 1000 units of force, we have only the following simple example to work out: $40 \times 40 = 8 \times 1000 . x$, where x stands for the number of grammes. In round numbers we get $x=0.2$ gramme. I charge the jar. The balance is deflected; I have reached, or rather passed, the potential 40, and you see when I discharge the jar the associated spark.[1]

The striking distance between the knobs of a machine increases with the difference of the potential, although not proportionately to that difference. The striking distance increases faster than the potential difference. For a distance between the knobs of one centimetre on this machine the difference of potential is 110. It can easily be increased tenfold. Of the tremendous differences of potential which occur in nature some idea may be obtained from the fact that the striking distances of lightning in thunder-storms is counted by miles. The differences of potential in galvanic batteries are considerably smaller than those of our machine, for it takes fully one hundred elements to give a spark of microscopic striking distance.

* * *

We shall now employ the ideas reached to shed some light upon another important relation between electrical and mechanical phenomena. We shall investigate what is the potential *energy*, or the *store of work*, contained in a charged conductor, for example, in a jar.

If we bring a quantity of electricity up to a conductor, or, to speak less pictorially, if we generate by work electrical force in a conductor, this force is able to produce anew the work by which it was generated. How great, now, is the energy or capacity for work of a conductor of known charge Q and known potential V?

Imagine the given charge Q divided into very small parts $q, q_1, q_2 \ldots$, and these little parts successively carried up to the conductor. The first very small quantity q is brought up without any appreciable work and produces by its presence a small potential $V_{,}$. To bring up the second quantity, accordingly, we must do the work $q_{,}V_{,}$, and similarly for the quantities which follow the work $q_{,,}V_{,,}$, $q_{,,,}V_{,,,}$, and so forth. Now, as the potential rises proportionately to the quantities

[1] The energy of a sphere of radius r charged with the quantity q is $\frac{1}{2}(q^2/r)$. If the radius increase the amount dr a loss of energy occurs, and the work done is $\frac{1}{2}(q^2/r^2)dr$. Letting p denote the uniform electrical pressure on unit of surface of the sphere, the work done is also $4r^2\pi p\,dr$. Hence $p=(1/8r^2\pi)(q^2/r^2)$. Subjected to the same superficial pressure on all sides, say in a fluid, our half sphere would be an equilibrium. Hence we must make the pressure p act on the surface of the great circle to obtain the effect on the balance, which is $r^2\pi p=\frac{1}{8}(q^2/r^2)=\frac{1}{8}V^2$.

[1] The arrangement described is for several reasons not fitted for the actual measurement of potential. Thomson's absolute electrometer is based upon an ingenious modification of the electrical balance of Harris and Volta. Of two large plane parallel plates, one communicates with the earth, while the other is brought to the potential to be measured. A small movable superficial portion f of this last hangs from the balance for the determination of the attraction P. The distance of the plates from each other being D we get $V=D\sqrt{8\pi P/f}$.

added until the value V is reached, we have, agreeably to the graphical representation of Fig. 12, for the total work performed,

$$W=\frac{1}{2}QV,$$

which corresponds to the total energy of the charged conductor. Using the equation $Q=CV$, where C stands for capacity, we also have,

$$W=\frac{1}{2}CV^2, \text{ or } W=Q^2/2C.$$

It will be helpful, perhaps, to elucidate this idea by an analogy from the province of mechanics. If we pump a quantity of liquid, Q, gradually into a cylindrical vessel (Fig. 13), the level of the liquid in the vessel will gradually rise. The more we have pumped in, the greater the pressure we must overcome, or the higher the level to which we must lift the liquid. The stored-up work is again rendered available when the heavy liquid Q, which reaches up to the level h, flows out. This work W corresponds to the fall of the whole liquid weight Q, through the distance $h/2$ or through the altitude of its centre of gravity. We have

$$W=\frac{1}{2}Qh.$$

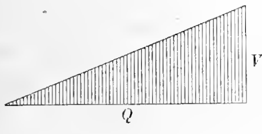

Fig. 12.

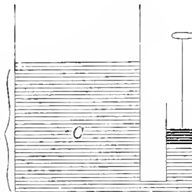

Fig. 13.

Further, since $Q=Kh$, or since the weight of the liquid and the height h are proportional, we get also

$$W=\frac{1}{2}Kh^2 \text{ and } W=Q^2/2K.$$

As a special case let us consider our jar. Its capacity is $C=3700$, its potential $V=110$; accordingly, its quantity $Q=CV=407{,}000$ electrostatic units and its energy $W=\frac{1}{2}QV=22{,}385{,}000$ C. G. S. units of work.

The unit of work of the C. G. S. system is not readily appreciable by the senses, nor does it well admit of representation, as we are accustomed to work with weights. Let us adopt, therefore, as our unit of work the gramme-centimetre, or the gravitational pressure of a gramme-weight through the distance of a centimetre, which in round numbers is 1000 times greater than the unit assumed above; in this case, our numerical result will be approximately 1000 times smaller. Again, if we pass, as more familiar in practice, to the kilogramme-metre as our unit of work, our unit, the distance being increased a hundred fold, and the weight a thousand fold, will be 100,000 times larger. The numerical result expressing the work done is in this case 100,000 times less, being in round numbers 0.22 kilogramme-metre. We can obtain a clear idea of the work done here by letting a kilogramme-weight fall 22 centimetres.

This amount of work, accordingly, is performed on the charging of the jar, and on its discharge appears again, according to the circumstances, partly as sound, partly as a mechanical disruption of insulators, partly as light and heat, and so forth.

The large battery of the Prague physical laboratory, with its sixteen jars charged to equal potentials, furnishes, although the effect of the discharge is imposing, a total amount of work of only three kilogramme-metres.

* * *

In the development of the ideas above laid down we are not restricted to the method there pursued; in fact, that method was selected only as one especially fitted to familiarise us with the phenomena. On the contrary, the connexion of the physical processes is so multifarious that we can come at the same event from very different directions. Particularly are electrical phenomena connected with all other physical events; and so intimate is this connexion that we might justly call the study of electricity the theory of the general connexion of physical processes.

With respect to the principle of the conservation of energy which unites electrical with mechanical phenomena, I should like to point out briefly two ways of following up the study of this connexion.

A few years ago Professor Rosetti, taking an influence-machine, which he set in motion by means of weights alternately in the electrical and non-electrical condition with the same velocities, determined the mechanical work expended in the two cases and was thus enabled, after deducting the work of friction, to ascertain the mechanical work consumed in the development of the electricity.

I myself have made this experiment in a modified, and, as I think, more advantageous form. Instead of determining the work of friction by special trial, I arranged my apparatus so that it was eliminated of itself in the measurement and could accordingly be neglected. The so-called fixed disk of the machine, the axis of which is placed vertically, is suspended somewhat like a chandelier by three vertical threads of equal lengths l at a distance r from the axis. Only when the machine is excited does this fixed disk, which represents a Prony's brake, receive, through its reciprocal action with the rotating disk, a deflexion α and a moment of torsion which is expressed by $D=(Pr^2/l)\alpha$, where P is the weight of the disk.[1] The angle α is determined by a mirror set in the disk. The work expended in n rotations is given by $2n\pi D$.

[1] This moment of torsion needs a supplementary correction, on account of the electric attraction of the excited disks. This is accomplished by changing the weight of the disk by means of additional weights and by making a second reading of the angles of deflexion.

If we close the machine, as Rosetti did, we obtain a continuous current which has all the properties of a very weak galvanic current, for example, it produces a deflexion in a multiplier which we interpose, and so forth. We can directly ascertain now the mechanical work expended in the maintenance of this current.

If we charge a jar by means of a machine, the energy of the jar employed in the production of sparks, in the disruption of the insulators, etc., corresponds to a part only of the mechanical work expended, a second part of it being consumed in the arc which forms the circuit. This machine, with the interposed jar, affords in miniature a picture of the transference of force, or more properly of work. And in fact nearly the same laws hold here for the economical coefficient as obtain for large dynamo-machines.[1]

Another means of investigating electrical energy is by its transformation into heat. A long time ago (1838), before the mechanical theory of heat had attained its present popularity, Riess performed experiments in this field with the help of his electrical air-thermometer or thermo-electrometer.

Fig. 14.

If the discharge be conducted through a fine wire passing through the globe of the air-thermometer, a development of heat is observed proportional to the expression above-discussed $W = \frac{1}{2} Q V$. Although the total energy has not yet been transformed into measurable heat by this means, inasmuch as a portion is left behind in the spark in the air outside the thermometer, still everything tends to show that the total heat developed in all parts of the conductor and along all the paths of discharge is the equivalent of the work $\frac{1}{2} Q V$.

It is not important here whether the electrical energy is transformed all at once or partly, by degrees. For example, if of two equal jars one is charged with the quantity Q at the potential V the energy present is $\frac{1}{2} Q V$. If the first jar be discharged into the second, V, since the capacity is now doubled, falls to $V/2$. Accordingly, the energy $\frac{1}{4} Q V$ remains, while $\frac{1}{4} Q V$ is transformed in the spark of discharge into heat. The remainder, however, is equally distributed between the two jars so that each on discharge is still able to transform $\frac{1}{8} Q V$ into heat.

* * *

We have here discussed electricity in the limited phenomenal form in which it was known to the inquirers before Volta, and which has been called, perhaps not very felicitously, "statical electricity." It is evident, however, that the nature of electricity is everywhere one and the same; that a substantial difference between statical and galvanic electricity does not exist. Only the quantitative circumstances in the two provinces are so widely different that totally new aspects of phenomena may appear in the second, for example, magnetic effects, which in the first remained unnoticed, whilst, *vice versa*, in the second field statical attraction and repulsions are almost wholly absent. As a fact, we can easily show the magnetic effect of the current of discharge of an influence machine on the galvanoscope although we could hardly have made the original discovery of the magnetic effects with this current. The statical, distant action of the wire poles of a galvanic element also would hardly have been noticed had not the phenomenon been known from a different quarter in a striking form.

If we wished to characterise the two fields in their chief and most general features, we should say that in the first, high potentials and small quantities come into play, in the second small potentials and large quantities. A jar which is discharging and a galvanic element deport themselves somewhat like an air-gun and the bellows of an organ. The first gives forth suddenly under a very high pressure a small quantity of air; the latter liberates gradually under a very slight pressure a large quantity of air.

In point of principle, too, nothing prevents our retaining the electrostatical units in the domain of galvanic electricity and in measuring, for example, the strength of a current by the number of electrostatic units which flow per second through its cross-section; but this would be in a double aspect impractical. In the first place, we should totally neglect the magnetic facilities for measurement so conveniently offered by the current, and substitute for this easy means a method which can be applied only with difficulty and is not capable of great exactness. In the second place our units would be much too small, and we should find ourselves in the predicament of the astronomer who attempted to measure celestial distances in metres instead of in radii of the earth and the earth's orbit; for the current which by the magnetic C. G. S. standard represents the unit, would require a flow of some

[1] The jar in our experiment acts like an accumulator, being charged by a dynamo machine. The relation which obtains between the expended and the available work may be gathered from the following simple exposition. A Holtz machine H (Fig. 14) is charging a unit jar L, which after n discharges of quantity q and potential v, charges the jar F with the quantity Q at the potential V. The energy of the unit jar discharges is lost and that of the jar F alone is left. Hence the ratio of the available work to the total work expended is

$$\frac{\frac{1}{2} Q V}{\frac{1}{2} Q V + (n/2) q v} \text{ and as } Q = n q, \text{ also } \frac{V}{V + v}.$$

If, now, we interpose no unit jar, still the parts of the machine and the wires of conduction are themselves virtually such unit jars and the formula still subsists $V/V + \Sigma v$, in which Σv represents the sum of all the successively introduced differences of potential in the circuit of connexion.

30,000,000,000 electrostatic units per second through its cross-section. Accordingly, different units must be adopted here. The development of this point, however, lies beyond my present task.

IMMORTALITY AND THE BUDDHIST SOUL-CONCEPTION.

We have published of late several articles on Buddhism, among them contributions of Japanese Buddhists. Also the present number of *The Monist* which has just appeared, contains an exposition of the similarities that obtain between Buddhism and Christianity. The article presents a number of quotations from the sacred books of the Buddhists and draws a lesson from their agreement with the Christian Gospels. The sympathy we have with Buddhism is based upon an important agreement which is the denial of the existence of the âtman, or the self of the soul, and the emphasis placed upon the indestructibility of the karma. The law of cause and effect, according to the Abidharma or Buddhist philosophy, is irrefragable not only in the physical but also in the moral world. Every evil deed has its evil effects, every good deed has its good consequences and neither upon earth nor in heaven or hell can we escape from reaping what we have sown. Death is the solution of our present existence, but our karma, consisting of the deeds done by us, continues, and this our karma, that continues, is our very soul, this our karma is the spiritual essence of our being, it is we ourselves.

For us Western people who are products of a Christian civilisation, trained in the schools of Christian education, Christian dogmatics, and Christian modes of thought, it is very hard to understand that a denial of the existence of a hypothetical ego-soul is not a denial of the actual soul; and we are always confronted with the complaint that this anti-metaphysical psychology is a poorly disguised nihilism and a desolate resignation of all our hopes and cherished ideals of a life beyond the grave. Mrs. Alice Bodington gave expression to this sentiment in a very sympathetic article which appeared some time ago in *The Open Court* together with an editorial reply. She said of those who offer her an immortality of the soul which is not at the same time an ego-immortality:

> "For the 'palpitating deathlessness' of the immortality promised by religion, they bid us be satisfied with the excellent effect our good words and actions are likely to have on future generations. . . . To me this is not immortality, nor anything remotely like immortality."

We fully understand that Mrs. Bodington is not satisfied with an immortality, not of the soul, but only of the effects of our good words and actions. This prospect might be unsatisfactory to Buddhists also. However, Mrs. Bodington should remember that not merely the effects, but our good words and actions themselves continue to exist, and she should know that our words and actions *are* our soul. As soon as we learn to understand the nature of the soul, as soon as we find that our words and actions are the essence of our being, and that there is no ego-entity that does the speaking of our words, or does the doing of our acts, we shall see at once that not merely the effects of our soul continues, but our soul itself.

The current misconception of Buddhism has originated in the same way that Mrs. Bodington's pessimistic attitude toward the apparently negative results of modern science has. Some Brahman philosophers had declared that the soul is the âtman, the self, or the ego, which was represented as a certain metaphysical and mysterious entity. Not the eye sees, they said, but the seer in the eye; not the nose smells, but the smeller in the nose; not the thoughts think, but the thinker in the thoughts, etc. And who is the seer, the smeller, the thinker? It is the self, the âtman, that something which says "I," the ego.

Now Buddha came and said: "This âtman is a fiction; it does not exist; there is no self." At the same time he preached the four noble truths and the eightfold path of righteousness, rejecting ceremonial rites, sacrifices, miracles, and the reliance on external help from God or gods. When Buddha found enlightenment, he met on his way to Benares, Upaka, who was "struck with his appearance and asked him what religion it was that made him so glad and yet so calm." Buddha tells him that he had overcome ignorance and error and had freed himself from all desires. To the question whither he was going, Buddha replied in a four-lined stanza:

> "I am now going to establish the kingdom of righteousness;
> For this purpose I am going to the city of Benares,
> To give light to those enshrouded in darkness
> And to open the gate of Immortality to men."

It has given our Pâli scholars and other investigators a great deal of trouble to understand why Buddha, who teaches the non-existence of the âtman, the self, or the ego,—so often identified with the soul and even called the soul,—at the same time upholds the doctrine of immortality. The Buddhist canon is very clear and definite in its explanations of the non-existence of an âtman; but the immortality of "mind" is not only not denied, but staunchly maintained.

Buddhism is generally supposed to be pessimism and nihilism; it is often described as a religion of utter desolation, but it is neither the one nor the other; and the Buddhist blessings and glorifications of Nirvâna stand in strong contrast to such misinterpretations. Yet it appears to me natural that men who have not as yet freed themselves from the illusion of self, whose religious ideal is a faith in the preservation of self and the hope of a future gratification of selfishness,

cannot understand the grandeur of Buddhism and the bliss of the Buddhist Nirvâna, which is not annihilation, but attainment of the Truth; no gloomy self-mortification, or despondent self-surrender, but simply a deliverance from error: it is a comprehension of the world as the world actually is; a comprehension of the law of action, i. e., of the rigidity of the law of causality and retribution, declaring that what a man sows, that he will reap. In a word, it is the comprehension of truth, and above all, it is the establishment of such habits as will insure a moral conduct in agreement with truth; therefore Buddha teaches that the way to Nirvâna is the practice of righteousness in views, words, and deeds. This is not death, but life; not annihilation, but preservation; not destruction, but immortality.

Mrs. Bodington might reply that our idiosyncrasies are different; that she agrees with us as to facts and that our disagreement has reference only to our attitude toward facts, for she is well acquainted with our view of immortality, and is dissatisfied with it only because it is not that kind of ego-immortality for which she longs. I would say that this longing for the ego-immortality is just what Buddha calls "clinging" or "cleaving"; so long as we cling to the phantom of the âtman or self, we shall never find satisfaction or peace of mind.

Idiosyncrasies of the mind, and attitudes toward facts, are also a matter of truth or untruth, of illusion or correct comprehension.

Which, now, is the correct view of life? That which makes us dejected and melancholy, so as to unfit us for life and the troubles of life, or that which gives us satisfaction and peace of mind, so that we joyously and energetically grapple with the difficulties of existence, not looking for external help either in religious ceremonies or supernatural interference, but relying upon our own energy, which is to be regulated by a clear grasping of the truth.

When, on the other hand, Dr. Robert Lewins, and with him many of those who call themselves freethinkers or materialists, declare that death ends all, is not their denial of immortality still a clinging to the illusion of self? If the soul is no self-entity, how can there be a death of the soul? Death is simply a dissolution of our organisation and a discontinuance of an individual life representing a more or less valuable combination of soul-activity, but it is no annihilation of man's karma. If the essence of the soul is our karma, and if our karma is indestructible, how can the soul be destroyed in death?

It seems to me that as surely as every mathematician will come to the same conclusions regarding the properties of geometrical triangles, circles, and other figures, so every thinking man, if he is but calm and frees his mind from all fancies and gratuitous assumptions will arrive at the same conclusion of the non-existence of an ego-soul, an illusion which prevents us from recognising the true nature of our actual soul, its pre-existence ere we were born, and its continuance beyond the grave.

In my own development I have passed through the same pessimistic attitude which has been set forth in its grand pathos by Mrs. Bodington, and trust that I do not say too much in declaring that I understand her ailments and complaints in their full depth and significance. I have, however, surrendered pessimism without denying those facts upon which pessimists like Schopenhauer base their dreary conception of life, and have supplanted it by what I call meliorism; and I must confess that I have been confirmed in the position I have taken, since I had the good fortune of knowing Mr. Hegeler. Being a man of practical life, he would not be satisfied with stones when he needed bread. Formerly, I was often inclined to believe that such views as I propounded in my booklet, *Monism and Meliorism*, were for the few and select only, that they were impractical and not adapted to the needs of men who stand in actual life. My acquaintance with Mr. Hegeler has cured me for good of these doubts.

The truths which we preach are simple enough, and yet they are hard to understand. But they are hard to understand only to those who have not as yet freed themselves from the illusion of self.

We do not mean to say that we are Buddhistic, or that we endorse either the Northern or Southern Buddhism in all its tenets and excrescences, which are many. We simply state our agreement on this fundamental doctrine of the anâtman or non-existence of a metaphysical ego-entity as the basis of a correct conception of the immortality of the soul.

This view is incompatible with all dualistic religions, and overthrows what they so often and erroneously consider the corner-stone of religious faith. But this view, which abolishes the illusion of self, is after all the only true religion; it is monistic and in agreement with science. Moreover, far from being a sad truth, its recognition is the main and indispensable condition of peace of mind, and of that bliss which cannot be found in the restlessness of those whose ethical ideal is the greatest possible amount of pleasure.

This conception of the soul has conquered death; for we now understand that death does not touch the soul; that the soul continues wherever the actions and deeds of which the soul consists, are present.

We read in the "Mahâvagga," I, 11, 2, that when Mâra, the Evil One, the deity of sin and death, approached Buddha with words of spite and threat, Buddha replies;

"I am delivered from all fetters, human and divine. I am delivered from the strong fetters. Thou art struck down, O Death."

Let us conclude with another quotation from the same book, which sets the religious assurance of the Buddhist doctrine in a clear light. When Buddha sends out his disciples to preach the doctrine he says:

"Go ye now, O disciples, and wander for the gain of the many, for the welfare of the many, out of compassion for the world, for the good, for the gain, and for the welfare of gods and men. Let not two of you go the same way. Preach, O disciples, the doctrine which is glorious in the beginning, glorious in the middle, glorious at the end, in the spirit and in the letter: proclaim a consummate, perfect, and pure life of holiness. There are beings whose mental eyes are covered by scarcely any dust, but if the doctrine is not preached to them, they cannot attain salvation. They will understand the doctrine." P. C.

IN MEMORY OF M. M. TRUMBULL.

BY SAMUEL P. PUTNAM.

Read at Memorial Meeting, Chicago, October 7, 1894.

A soldier born, thy spirit welcomed e'er
The stir of battle, be it in the smoke
Of cannon and the bayonet's glistening surge,
The swirl and thunder of ensanguined hosts,
Where ghastly death confronts the victor's path;
Or realms of thought with fields more stormful far,
Where vaster forces meet in mightier strife,
Where pen more luminous than shining blade,
The flame electric drops which moves a world,
And crowns a truth, or blasts a giant lie;
In this thou wast a knight exultant, too,
And ever in the front with beaming brow;
Thy mind as dauntless as the unsheathed sword
That flings its splendor in the forward fray.

Thy aim was high, not for to-day's applause;
Not for the truth of yesterday's renown;
But for the truth beyond the beaten path;
The untried truth that only lofty souls
Behold and welcome on the distant heights.
Thou wast a dreamer and a toiler, too,
Thy mind was in the future's golden days;
The gates of paradise to thy far view
Were open wide—the goal of martyr's fire,
The poet's song and hero's restless march,
The bright enchantment that adorns the earth
With constant hues of beauty and delight.
And yet thou wast in touch with common life,
And hand in hand with those who strike the spark
Of earnest action from surroundings grim;
The comrade of the weary slave wast thou;
The bold defender of defeated right;
The guard of liberty when Judas-hands
Would clothe its loveliness with gilded chains;
Thine eye was clear to see great nature's law,
Above the hoary precedents of wrong;
And as our starry flag thou didst defend
Within the bloody ranks of fateful war;
So wouldst make that flag the pennon bright
Of justice to all lands and coming time.

Thy work is done; true to the line was all;
No wavering in thought or deed or word
From freedom's call, to which thy soul was pledged;
Sweet fortune thine that in the rayless grave
Illustrious ends the task thou aim'st to do;
So can we honor thee without regret;
No flaw upon the diamond of thy fame;
Thy life is crystalled now in death's white grace,
To its supreme effulgence, starred sublime
Upon the firmament, whose thousand orbs
Through ages' depths illume our life to-day.

The fruit of thy brave toil shall yet appear;
Thy spirit's flower shall bloom in years afar;
The glory of thy dream shall not be lost,
For it is burning in a million hearts—
The reign of justice on the happy earth—
The peace of liberty in every land—
The grandeur of the truth in every brain—
The melody of love in every breast—
While grand and beautiful shall be the way
Of fair humanity; the heights attained
Where wisdom shines; and o'er the laden plain
Shall glow the feet of labor, bowed no more
But throned and glorious in its native wealth;
And science, genius, music, art, romance,
Shall be the melting links that clasp the world
In bright fraternity and equal good.

Thy harvest-home is reached; our path beams on
To this great goal; we do not strive in vain;
For as thy virtues shine upon our eyes,
So shall all virtues shine through coming years;
So shall all deeds flow in one mighty stream;
The onward stream of human power and joy.

Unceasing is the struggle of mankind;
The gain to day is but the vantage point
Of grander progress on to-morrow's field;
No rest is there save as one rests like thee
In the crowned glory of heroic death.

CORRESPONDENCE.

A BUDDHIST ON THE LAW OF KARMA.

To the Editor of The Open Court:

I am sure you will do justice in your forthcoming work to the profoundly philosophical subjects, Karma and Nirvâna. Mr. Julian K. Smyth, in the *New Church Review*, in his essay on "Christianity and Orientalism," failing to grasp the law of Karma, confounds it with the pernicious doctrine of fatalism, which Buddha condemned along with materialism and teleological dualism. The law of Karma is based on the cyclic law of cause and effect. This law of Karma has no beginning and no end, and it is classified as follows:

Karma whose results are forthwith shown.

Karma that has no energy to work out in this life.

Karma that is sure to work out in any one of the many lives.

Latent Karma that lies in wait to work out when opportunity occurs. There is not one who is not free from this Karma.

Powerful Karma that gives no opportunity for lesser or ordinary Karma to work out.

Effectual Karma, which works out according to the preponderating influence one has over the other, either good or bad.

Potential Karma of the dying individual ready to come into activity before any other Karma.

Karma that works out at birth only.

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Dynamic Karma, either good or bad, that works out in successive births, according to its nature.

Karma, either good or bad, which has a counter influence on the other.

Effectual Karma that does not allow the weaker Karma to operate on.

An individual latent Karma, either good or bad, which is dynamic, and having the force of weakening all the rest.

Study of Abhidharma, the psychology of Buddhism, is absolutely necessary, without which the philosophy of Buddhism is difficult to be realised. All the great exponents of Buddhism in the past were converted thereto by the profoundness of its psychology.

The study of Pali is very important to know the doctrines of Buddhism. H. DHARMAPÁLA.

CALCUTTA, July 23, 1894.

NOTES.

On Sunday evening, October 7, memorial services were held by the American Secular Union, at Fort Dearborn Hall, Chicago, in honor of the late Gen. M. M. Trumbull. Addresses were made by Mr. Clarence S. Darrow, Dr. Juliet H. Severance, Lillie D. White for Lizzie M. Holmes, Shirlie Woodman, Mrs. Sarah Ames, and Mrs. M. A. Freeman. Letters were read from Judge C. B. Waite and Dr. Paul Carus, both of whom were unable to attend, and an original poem written for the occasion, and published in this number of *The Open Court*, was recited by Mr. Samuel P. Putnam. The family of Gen M. M. Trumbull were among the audience, which was large and representative. The exercises were in every way worthy of the occasion.

BOOK NOTICES.

Marriage and Divorce. The Effect of Each on Personal Status and Property Rights, with a Consideration of Fraudulent Divorces and the Ethics of Divorce. By Henry C. Whitney. (Philadelphia: John E. Potter & Co. Pp. 377.) A work written for popular and professional use. It gives a history of the institutions of marriage and divorce and a summary of the laws of marriage and divorce in all countries. The author writes sensibly on his subject, but from the point of view of the divorce-practitioner. He regards divorce as a salutary institution in the altered conditions of modern society, contending that "the field for the labors of the reformer is the social world; let the causes for divorce be abridged and divorce as an effect will be abridged also." He demands an honorable place for divorce practice in the profession, and adds a chapter on the ethical aspects of the subject.

THEODOR PARKER IN SEINEM LEBEN UND WIRKEN. Dargestellt von *Alfred Altherr*, Pfarrer zu St. Leonhard in Basel. Mit Parker's Bildniss. St. Gallen: Th. Wirth & Co. 1894.

This is a thoroughly appreciative and genial life of the great Teacher whose influence is still living in the hearts and minds of a second generation and spreading continually in other lands than his own.

The materials for his biography are fortunately ample and were gathered up soon after his death by his friend John Weiss, who had intimate personal acquaintance with him and his work. This somewhat hasty and ill-arranged volume is a precious storehouse of material, and it was followed some years later by the memoir of O. B. Frothingham whose dispassionate judgment and admirable literary skill brought this and some new-found material into more symmetric form.

Various other friends have contributed their reminiscences of this rich and varied life, and his own letters and diaries have been freely used, and now we are indebted to a German for weaving them all into a harmonious picture which gives us not only the heart and soul of the man, but also an impartial estimate of his relation to his time and the work which he did for the world.

Reading it in the slightly difficult medium of a foreign language, but one with which he was so familiar and in whose literature he found so much of his thought, I felt as the artist does when he holds his picture before a mirror, and the slight change of relation shows him its beauties and its faults more vividly than before. So freshly has the image of my friend come back to me that I have sometimes wondered if I have read all this in Weiss's or Frothingham's pages before.

To the young German public who sincerely wish to study the American life and thought of which Theodore Parker was the best exponent in the generation that is passing away this book is an immense help. Some modifications may have been made in our metaphysics and theology, for science and criticism have made great advances in the thirty-four years since his death, but his religion is unchanged; it is the spirit that carried us through the great crucial struggle of the sixties, and it is the same religion that must take us safely through the difficulties which now lie around us. The Fatherhood of God, the Brotherhood of Man, the Immortality of the Soul, and, in this world, Truth, Justice, and Righteousness unflinchingly applied to every relation of life, are all that we need to guide us on our difficult way.

To be baptised into the faith of Theodore Parker is to be strengthened for the great moral conflict which is our present duty, and in which every young man will find him an inspiration and a leader.

We rejoice that we can clasp hands with those across the ocean who are doing such honor to his memory, and who are so bravely carrying forward his work. E. D. C.

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THE ECONOMICAL CHARACTER OF PHYSICAL RESEARCH.

BY PROF. ERNST MACH.[1]

When the human mind, with its limited powers, attempts to mirror in itself the rich life of the world, of which it is itself only a small part, and which it can never hope to exhaust, it has every reason for proceeding economically. Hence that tendency, expressed in the philosophy of all times, to compass by a few organic thoughts the fundamental features of reality. "Life understands not death, nor death life." So spake an old Chinese philosopher. Yet in his unceasing desire to diminish the boundaries of the incomprehensible, man has always been engaged in attempts to understand death by life and life by death.

Among the ancient civilised peoples, nature was filled with demons and spirits having the feelings and desires of men. In all essential features, this animistic view of nature, as Tylor[2] has aptly termed it, is shared in common by the fetish-worshipper of modern Africa and the most advanced nations of antiquity. As a theory of the world it has never completely disappeared. The monotheism of the Christians never fully overcame it, no more than did that of the Jews. In the belief in witchcraft and in the superstitions of the sixteenth and seventeenth centuries, the centuries of the rise of natural science, it assumed frightful pathological dimensions. Whilst Stevinus, Kepler, and Galileo were slowly rearing the fabric of modern physical science, a cruel and relentless war was waged with firebrand and rack against the devils that glowered from every corner. To-day even, apart from all survivals of that period, apart from the traces of fetishism which still inhere in our physical concepts,[3] those very ideas still covertly lurk in the practices of modern spiritualism.

By the side of this animistic conception of the world, we meet from time to time, in different forms, from Democritus to the present day, another view, which likewise claims exclusive competency to comprehend the universe. This view may be characterised as the *physico-mechanical* view of the world. To-day, that view holds, indisputably, the first place in the thoughts of men, and determines the ideals and the character of our times. The coming of the mind of man into the full consciousness of its powers, in the eighteenth century, was a period of genuine disillusionment. It produced the splendid precedent of a life really worthy of man, competent to overcome the old barbarism in the practical fields of life; it created the *Critique of Pure Reason*, which banished into the realm of shadows the sham-ideas of the old metaphysics; it pressed into the hands of the mechanical philosophy the reins which it now holds.

The oft-quoted words of the great Laplace,[1] which I will now give, have the ring of a jubilant toast to the scientific achievements of the eighteenth century: "A mind to which were given for a single instant all the forces of nature and the mutual positions of all its masses, if it were otherwise powerful enough to subject these problems to analysis, could grasp, with a single formula, the motions of the largest masses as well as of the smallest atoms; nothing would be uncertain for it; the future and the past would lie revealed before its eyes." In writing these words, Laplace, as we know, had also in mind the atoms of the brain. That idea has been expressed more forcibly still by some of his followers, and it is not too much to say that Laplace's ideal is substantially that of the great majority of modern scientists.

Gladly do we accord to the creator of the *Mécanique céleste* the sense of lofty pleasure awakened in him by the great success of the Enlightenment, to which we too owe our intellectual freedom. But to-day, with minds undisturbed and before *new* tasks, it becomes physical science to secure itself against self-deception by a careful study of its character, so that it can pursue with greater sureness its true objects. If I step, therefore, beyond the narrow confines of my specialty in this discussion, to trespass on friendly neighboring domains, I may plead in my excuse that the subject-matter of knowledge is common to all domains of research, and fixed, sharp lines of demarcation cannot be drawn.

[1] An address delivered before the anniversary meeting of the Imperial Academy of Sciences, at Vienna, May 25, 1882. Translated by μκρκ.

[2] *Primitive Culture.*

[3] Tylor, *loc cit.*

[1] *Essai philosophique sur les probabilités.* 6th Ed. Paris, 1840, p. 4. The necessary consideration of the initial velocities is lacking in this formulation.

The belief in occult magic powers of nature has gradually died away, but in its place a new belief has arisen, the belief in the magical power of science. Science throws her treasures, not like a capricious fairy into the laps of a favored few, but into the laps of all humanity, with a lavish extravagance that no legend ever dreamt of! Not without apparent justice, therefore, do her distant admirers impute to her the power of opening up unfathomable abysses of nature, to which the senses cannot penetrate. Yet she who came to bring light into the world, can well dispense with the darkness of mystery, and with pompous show, which she needs neither for the justification of her aims nor for the adornment of her plain achievements.

The homely beginnings of science will best reveal to us its simple, unchangeable character. Man acquires his first knowledge of nature half-consciously and automatically, from an instinctive habit of mimicking and forecasting facts in thought, of supplementing sluggish experience with the swift wings of thought, at first only for his material welfare. When he hears a noise in the underbrush he constructs there, just as the animal does, the enemy which he fears; when he sees a certain rind he forms mentally the image of the fruit which he is in search of; just as we mentally associate a certain kind of matter with a certain line in the spectrum or an electric spark with the friction of a piece of glass. A knowledge of causality in this form certainly reaches far below the level of Schopenhauer's pet dog, to whom it was ascribed. It probably exists in the whole animal world, and confirms that great thinker's statement regarding the will which created the intellect for its purposes. These primitive psychical functions are rooted in the economy of our organism not less firmly than are motion and digestion. Who would deny that we feel in them, too, the elemental power of a long practised logical and physiological activity, bequeathed to us as an heirloom from our forefathers?

Such primitive acts of knowledge constitute to-day the solidest foundation of scientific thought. Our instinctive knowledge, as we shall briefly call it, by virtue of the conviction that we have consciously and intentionally contributed nothing to its formation, confronts us with an authority and logical power which consciously acquired knowledge even from familiar sources and of easily tested fallibility can never possess. All so-called axioms are such instinctive knowledge. Not consciously gained knowledge alone, but powerful intellectual instinct, joined with vast conceptive powers, constitute the great inquirer. The greatest advances of science have always consisted in some successful formulation, in clear, abstract, and communicable terms, of what was instinctively known long before, and of thus making it the permanent property of humanity. By Newton's principle of the equality of pressure and counterpressure, whose truth all before him had felt, but which no predecessor had abstractly formulated, mechanics was placed by a single stroke on a higher level. Our statement might also be historically justified by examples from the scientific labors of Stevinus, S. Carnot, Faraday, J. R. Mayer, and others.

All this, however, is merely the soil from which science starts. The first real beginnings of science appear in society, particularly in the manual arts, where the necessity for the communication of experience arises. Here, where some new discovery is to be described and related, the compulsion is first felt of clearly defining in consciousness the important and essential features of that discovery, as many writers can testify. The aim of instruction is simply the saving of experience; the labor of one man is made to take the place of that of many.

The most wonderful economy of communication is found in language. Words are comparable to type, which spare the repetition of written signs and thus serve a multitude of purposes; or to the few sounds of which our numberless different words are composed. Language, with its helpmate, conceptual thought, by fixing the essential and rejecting the unessential, constructs its rigid pictures of the fluid world on the plan of a mosaic, at a sacrifice of exactness and fidelity but with a saving of tools and labor. Like a piano-player with previously prepared sounds, a speaker excites in his listener thoughts previously prepared, but fitting many cases, which respond to the speaker's summons with alacrity and little effort.

The principles which a prominent political economist, E. Hermann,[1] has formulated for the economy of the industrial arts, are also applicable to the ideas of common life and of science. The economy of language is augmented, of course, in the terminology of science. With respect to the economy of written intercourse there is scarcely a doubt that science itself will realise that grand old dream of the philosophers of a Universal Real Character. That time is not far distant. Our numerical characters, the symbols of mathematical analysis, chemical symbols, and musical notes, which might easily be supplemented by a system of color-signs, together with some phonetic alphabets now in use, are all beginnings in this direction. The logical extension of what we have, joined with a use of the ideas which the Chinese ideography furnishes us, will render the special invention and promulgation of a Universal Character wholly superfluous.

The communication of scientific knowledge always involves description, that is, a mimetic reproduction of facts in thought, the object of which is to replace and save the trouble of new experience. Again, to

[1] *Principien der Wirthschaftslehre*, Vienna, 1873.

save the labor of instruction and of acquisition, concise, abridged description is sought. This is really all that natural laws are. Knowing the value of the acceleration of gravity, and Galileo's laws of descent, we possess simple and compendious directions for reproducing in thought all possible motions of falling bodies. A formula of this kind is a complete substitute for a full table of motions of descent, because by means of the formula the data of such a table can be easily constructed at a moment's notice without the least burdening of the memory.

No human mind could comprehend all the individual cases of refraction. But knowing the index of refraction for the two media presented, and the familiar law of the sines, we can easily reproduce or fill out in thought every conceivable case of refraction. The advantage here consists in the disburdening of the memory; an end immensely furthered by the written preservation of the natural constants. More than this comprehensive and condensed report about facts is not contained in a natural law of this sort. In reality, the law always contains less than the fact itself, because it does not reproduce the fact as a whole but only in that aspect of it which is important for us, the rest being either intentionally or from necessity omitted. Natural laws may be likened to intellectual type of a higher order, partly movable, partly stereotyped, which last on new editions of experience may become downright impediments.

When we look over a province of facts for the first time, it appears to us diversified, irregular, confused, full of contradictions. We first succeed in grasping only single facts, unrelated with the others. The province, as we are wont to say, is not *clear*. By and by we discover the simple, permanent elements of the mosaic, out of which we can mentally construct the whole province. When we have reached a point where we can discover everywhere the same facts, we no longer feel lost in this province; we comprehend it without effort; it is *explained* for us.

Let me illustrate this by an example. As soon as we have grasped the fact of the rectilinear propagation of light, the regular course of our thoughts stumbles at the phenomena of refraction and diffraction. As soon as we have cleared matters up by our index of refraction we discover that a special index is necessary for each color. Soon after we have accustomed ourselves to the fact that light added to light increases its intensity, we suddenly come across a case of total darkness produced by this cause. Ultimately, however, we see everywhere in the overwhelming multifariousness of optical phenomena the fact of the spatial and temporal periodicity of light, with its velocity of propagation dependent on the medium and the period. This tendency of obtaining a survey of a given province with the least expenditure of thought, and of representing all its facts by some one single mental process, may be justly termed an economical one.

The greatest perfection of mental economy is attained in that science which has reached the highest formal development, and which is widely employed in physical inquiry, namely, in mathematics. Strange as it may sound, the power of mathematics rests upon its evasion of all unnecessary thought and on its wonderful saving of mental operations. Even those arrangement-signs which we call numbers are a system of marvellous simplicity and economy. When we employ the multiplication-table in multiplying numbers of several places, and so use the results of old operations of counting instead of performing the whole of each operation anew; when we consult our table of logarithms, replacing and saving thus new calculations by old ones already performed; when we employ determinants instead of always beginning afresh the solution of a system of equations; when we resolve new integral expressions into familiar old integrals; we see in this simply the feeble glimmerings of the intellectual activity of a Lagrange or a Cauchy, who, with the keen discernment of a great military commander, substituted for new operations whole hosts of old ones. No one will dispute me when I say that the most elementary as well as the highest mathematics are economically-ordered experiences of counting, put in forms ready for use.

In algebra we perform, as far as possible, all numerical operations which are identical in form once for all, so that only a remnant of work is left for the individual case. The use of the signs of algebra and analysis, which are merely symbols of operations to be performed, is due to the observation that we can materially disburden the mind in this way and spare its powers for more important and more difficult duties, by imposing all mechanical operations upon the hand. One result of this method, which attests its economical character, is the construction of calculating machines. The mathematician Babbage, the inventor of the difference-engine, was probably the first who clearly perceived this fact, and he touched upon it, although only cursorily, in his work, *The Economy of Manufactures and Machinery*.

The student of mathematics often finds it hard to throw off the uncomfortable feeling that his science, in the person of his pencil, surpasses him in intelligence,—an impression which the great Euler confessed he often could not get rid of. This feeling finds a sort of justification when we reflect that the majority of the ideas we deal with were conceived by others, often centuries ago. In great measure it is really the intelligence of other people that confronts us in science. The moment we look at matters in this light, the un-

canniness and magical character of our impressions are dispelled, especially when we remember that we can think over again at will any one of those alien thoughts.

* * *

Physics is experience, arranged in economical order. By this order not only is a broad and comprehensive view of what we have rendered possible, but also the defects and the needful alterations are made manifest, exactly as in a well-kept household. Physics shares with mathematics the advantages of succinct description and of brief, compendious definition, which precludes confusion, even in ideas where, with no apparent burdening of the brain, hosts of others are contained. Of these ideas the rich contents can be produced at any moment and displayed in their full perceptual light. Think of the swarm of well-ordered notions pent up in the idea of the potential. Is it wonderful that ideas containing so much finished labor should be easy to work with?

Our first knowledge, thus, is a product of the economy of self-preservation. By communication, the experience of *many* persons, individually acquired at first, is collected in *one*. The communication of knowledge and the necessity which every one feels of managing his stock of experience with the least expenditure of thought, compel us to put our knowledge in economical forms. But here we have a clue which strips science of all its mystery, and shows us what its power really is. With respect to specific results it yields us nothing that we could not reach in a sufficiently long time without methods. There is no problem in all mathematics that cannot be solved by direct counting. But with the present implements of mathematics many operations of counting can be performed in a few minutes which without mathematical methods would take a lifetime. Just as a single human being, restricted wholly to the fruits of his own labor, could never amass a fortune, but on the contrary the accumulation of the labor of many men in the hands of one is the foundation of wealth and power, so, also, no knowledge worthy of the name can be gathered up in a single human mind limited to the span of a human life and gifted only with finite powers, except by the most exquisite economy of thought and by the careful amassment of the economically ordered experience of thousands of co-workers. What strikes us here as the fruits of sorcery are simply the rewards of excellent housekeeping, as are the like results in civil life. But the business of science has this advantage over every other enterprise, that from *its* amassment of wealth no one suffers the least loss. This, too, is its blessing, its freeing and saving power.

[TO BE CONCLUDED.]

THE PHILOSOPHY OF A HUMORIST.

Wilhelm Busch, the famous author of *Max und Moritz* and other witty booklets, published a few years ago a little volume called *Eduard's Traum*, which deserves our attention for its humor and satirical criticisms not less than for the truths it contains. It shows that its author, the man of jokes, is at the same time a thinker; he is a master of fun, but he is also a philosopher and it will not only be interesting to know the philosophy of a humorist, but we shall also enjoy the dress in which he clothes his thought and the way in which he presents his views.

The plot of the little narrative is simple enough. It is a dream, and in this dream the author presents to the reader a number of philosophical problems which he either solves in an aphoristic way, or, having touched upon them, passes by to other problems. He concludes his booklet with the remark "A book is not "an organ with which the organ-grinder mercilessly "tortures our ears. A book is even more unobtrusive "than the picture on the wall, which still looks down "with a certain desire to be noticed. A book when it "lies before us shut, is a bound, sleeping, and harm-"less animalcule which hurts no one. He who does "not rouse it, at him it does not yawn. Him who "does not put his nose between its jaws it will not "bite."

Let us look into the book, and I will read in a free translation a few passages which appear to me noteworthy; and if my readers understand German I advise them to send for the original. The perusal of these eighty-five pages will fully repay the time spent on them. The book is worth having in one's library and its place is among the philosophers.

Wilhelm Busch's story is as follows:

It is bedtime. Edward is still up. His little boy, Emil, is in bed. Elise, his wife, bids him good-night and retires. But Edward, in complacent rumination, still loiters on the limits of the inconceivable. He yawns, throws away the stump of his cigar, takes the last swallow of his evening-drink (for we must suppose him to be a Bavarian) and decides to retire too. Having stared awhile into the light of the candle he blows it out and goes to bed. Before his eye the image of the flame still remains, and he begins to contemplate it attentively. Then he experiences a feeling as if his spirit, his soul, or whatever you may call it, began to shrink. His ego became smaller and smaller; first like a potato, then like a pill, then like a pin's head, then still smaller, and at last it was a point. But he was a thinking-point and active he was too, moving about in all directions, making his demand of time and space quite *en passant* as a by-product. In this shape he makes several excursions.

I. THE WORLD OF PURE FORMS.

Edward describes his journey into the land of mathematics as follows:

"With telegraphic swiftness of thought I switched directly through the wall and found myself in friendly surroundings. It was the domain of numbers where a pretty little arithmetical township lay.

"Strange! in a dream flourishes even have life.

"Morning dawned. Several peasants in the fields were husbanding their multiplications at an early hour. These people live and multiply honestly; they do not prosper greatly but they are frugal.

"More pretentious are the officials of the town. They were talking about a certion nought which had blocked the way of many an honest fellow, and when one had advanced who, as they thought, had not deserved it, then certainly, it was rumored, that as sure as twice two is four, the old intriguing nought was behind him. In the fashionable quarter the gentry live who can trace their lineage to the oldest primers. A certain Mr. X is the most looked for person of all. But he makes himself so rare that almost daily there are a thousand fools who ask for him, before a wise man can point him out. Other algebraical numbers are very impertinent. Two fellows whom I met in the park-promenade introduced themselves to me twice; first as Mr. A and Mr. B; then again as Mr. B and Mr. A; and they asked me conceitedly whether it wasn't all the same, for $A+B=B+A$. ''Tis all the same to me,' I said courteously, although I knew that the proposition in one respect had a hitch. But even in a dream we allow such little inaccuracies arising from politeness to pass unchallenged.

"I went to the market where the concrete numbers conducted their business. Suddenly a sausage came running in hot haste, and its price was marked ninety-three cents. Seventeen young tailors came after her with open shears and open mouths trying to catch her. 'We have paid our money,' they shouted, 'and now *snipsnap* we will divide.' 'That won't do,' gasped the sausage, which perspired fatty drops in her agony, for the tailors had already pricked her with their shears and had made thirty-four holes. At this moment an expert accountant came. He wore yellow pants, forty-five cents a yard, a hired evening dress, an unpaid-for stove-pipe hat; he made a false equation and brought the sausage on his side; but the tailors did not like the joke. They cut off the tails of his evening dress, ripped the buttons from his pants, and had he not speedily withdrawn, leaving the sausage behind, they would have dissevered him. Before they could again attack the sausage, the wife of the butcher, two hundred and fifty-seven pounds living weight, appeared and caused great consternation, for, she said, she had seen no money, and to give up ninety-three cents for nothing was against her human shortage. At once all the clattering shears were turned against the round sum of the buxom butcher's wife, and the tumult was great. The crowd was swelled by fifty salted herrings, two score and ten eggs, three dozen cheeses, one bottle of whiskey, three-quarters of a pound of dish-butter, six pounds of cooking butter, fifteen ounces of snuff, and numerous dittos. Endangered by the points of the shears the butcher's wife retreated. She stepped into the three-quarters of a pound of dish-butter, fell down upon the six pounds of cooking-butter, and while falling she drew into either of the holes of her nose two ounces of snuff, began to sneeze, in consequence whereof she made a somersault, squeezing three cheeses, and breaking the bottle of whiskey. When she alighted on the ground her heavy heels smashed two herrings so that both their poor souls fled out of their salted bodies. But when the complication was at its height, the crowd dispersed, for a new and superior magnitude, the town police, appeared upon the scene. The tailors made themselves as thin as they could, and the butcher's wife raised the sausage in her right hand, exclaiming: 'There is no justice left in the town; that's what I say.' But the town-police understood his duty, noted down the two herrings who had lost their souls, kept the cheeses, the butter, and the glass splinters in his head, added the woman and the sausage, put them in brackets, transported them to the town-scales, where one was found too heavy and the other one too light, and subtraction was inevitable. The sausage was subtracted for the exchequer. The remainder for contempt of court was three times three crosswise cancelled in ink, and the brave town-policeman on the very same day was, by the infinitely great mayor of the town, raised to the third power. There were before the treasurer several other cases attended to with the same promptitude."

The town contains beautiful parks and orchards full of golden percentages, and the dividends go up and down on paper ladders. Some of them were seen dropping to the ground, and they stroked their bruised parts and limped drearily home.

There is also enough grief and misery displayed on all corners of the streets. One can see fractured numbers, swollen numerators who carry small denominators upon their backs. How pitiful they look! "But," adds Edward, "I remained cool. I had no money with me, and if I had had some I would not have given them anything. I had changed my character. For wherever there is need of it I do not mind a few pennies; that you know, my friends."

Edward now came among the points, a buoyant people who were just practising sharp-shooting. "The smaller these folks," he tells us, "the greater is their pleasure. They were crawling and squirming like

merry infusoria in an old barrel of rain-water. Like mosquitoes, the thinking-points were dancing with their beloved little ideas, and I myself engaged one, and waltzed a few times round. Still nimbler and windier in the terpsichorean art than they were the purely mathematical points, but they were so bashful that they became smaller and smaller the more one looked at them. One of them disappeared entirely when I looked at him very closely. Queer fellows, this sort of points. Old Brennecke, my mathematical professor, used to say: 'Whoever cannot think a point is simply too lazy.' I have often since tried, but just when I think I have it, I have—nothing. And we have the same experience with all things; as soon as we look at them more closely, when we are about to seize them with the tenderest comprehension, they secretly withdraw into the corner of the incomprehensible and disappear without leaving anything behind, like the enchanted rabbit whom the hunter can never hit. There were also some critical points making mischievous faces and impeding every one wherever they went. One of them, an impudent fellow, stepped upon the train of a beautiful, young idea and at the same time upon the corn of her partner, the thinking-point; this insolent behavior interrupted all his arguments, and he began to scream. That was the signal for a lively scandal, for all the points of dispute and the points of honor interfered, to the delight of all present."

Continuing his journey, Edward came to the atoms, who were just beginning a square dance. With great assurance they danced their complex molecular figures, and when they were through, all had grown pretty warm. They are not quite so stupid as one is inclined to believe, and are quite interesting, as well as interested themselves, for tender love-affairs are not rare among them. One of their ladies appeared to me familiar. I must have seen her, and, really! I remember, at Leibnitz's! It was the old monad, and she had grown quite young again. She approached me, shook hands, and held me with her unsubstantial affinities, and pressed a kiss upon my lips, saying: 'My dear friend, let us be eternally united.' But I was repulsive. With great rapidity I shot through the roof and hastened away to distant spheres. When I looked round I was not quite alone, for right near I heard a cough. It was the mathematical point whom I had tried to look at, and he said: 'At home I cannot get on; now I'll see what I can do in the geometrical plane.'"

The geometrical plane lay before our romantic traveller in the splendor of the sinking evening sun. No tree, no bush, no chimney loomed up. All was flat as a pan-cake; nay, a thousand times flatter. And they were standing at the entrance to an industrious city which lay flat on its side. The door through which they passed had only breadth, no height. "It was so low," says Edward, "that my pate was grazed, and even my tiny companion could just pass through. He got an appointment that very same evening with an able geometer who took him at once into his drawing-pen in order to transfer him to the place of his future activity. I wished him all success, but I myself went to the hotel, where the waiter appeared as a straight mathematical line. Nothing could be more slender, and I thought of what my little nephew, Peter, once said. 'Uncle Edward,' he said, 'a ghost must be real slim for one doesn't see it at all.'

"How ridiculously thin such a mathematical line is! In the room next to me there were thirty in one bed, which was not broader than a cigar-case, and yet there was plenty of space left. At first they were quarrelling, for there was a Pole among them who suffered from nightmares and was very restless until he was nailed tight by two points; then he became quiet. I tried to pronounce his name, Chr—rrr—rrrr, but at that moment I heard a voice saying, 'Edward, do not snore.' It was the voice of my wife, I awoke for a moment but soon fell asleep again."

When Edward, in his dream, awoke the next morning in the geometrical plane, he found that everybody had to crawl about on his stomach. High and low are difficult to distinguish at first sight, and if one has cause to be polite one must look out with great circumspection, for as there is no height there are no shadows, and everybody, even the most square fellow of great contents appears as a simple line. The absence of shadow makes photography impossible, and the people of this city have to forego the ornament of pictures in their rooms. But they do as well as they can. They call in the carpenter, they measure their friends, and make a proportional figure in the album, noting the real square contents together with the year and date, and the memorial is ready. Some of the inhabitants told me that a few postmen had become so thin by constantly crawling on their stomachs that in their old age they were only half as thin as possible. This seemed to me remarkable on account of congruence, for if the report was correct an actual congruence of equal figures which appeared to me at this highly depressed locality impossible, did not seem to be excluded under all circumstances. I inquired for the congruence office, an institution which is similar to the county clerk's office where marriage licences are given. As no one could give me any information. I went to the mayor and was told "We have no such nonsense; any one anxious for such experience, especially if it be a case of symmetrical congruence, must please go to the third dimension."

"As the atmosphere in the mayor's office was very

close I bade him good-bye and went through the ceiling into tri-dimensional space where stereometric liberty prevails and where spatially sympathetic couples have the licence of marriage relations. But even here no exceptions were allowed. I just saw two spherical triangles, one the exact reflected image of the other. They returned in tears from the congruence office where they had been refused. There was a pair of infinitely delicate gloves, one left one and one right one. He, the groomsman, and she the bridesmaid, comforting the unfortunate couple, saying that they were in the same predicament and if there was no other hope they could after all elope into the fourth dimension where nothing is impossible. 'Alas!' sighed the bride, 'who knows what the fourth dimension is like?' One might have pitied the poor people but we must not be too quick with our sympathy, for the inhabitants of this unsubstantial country are hollow, sun and moon shine through them, and any one who stands behind them can count easily the buttons of their vests in front. They look through one another, and yet these people who have as little contents as a cleaned-out sparrow's egg, talk about the noble aspirations of their souls and address one in the most refined phraseology. I got sick of this conceited world of empty figures and hurried away. When about to leave I was addressed in a deep, sonorous bass by a gentleman who was so round and thick that he almost took up the whole space of the exit. It was my former companion, the mathematical-point. By a clever turn in the plane he had become a circle, and on emigrating into tri-dimensional space he had, by another turn, developed into a sphere. He was now on his way to a spiritualistic medium for materialisation, intending to go as a globe to a high-school. The unimportant little fellow had become a regular snob who began to treat me condescendingly. That was too much for me. I did not mean to suffer it from a puffed-up point, for such are all these people. I turned and went through the wall where I supposed that the complete world of reality lay, but even this was only in parts." P. C.

[TO BE CONTINUED.]

ERECT VISION.

BY GUSTAV GLASER.

A GOOD deal has been written about this problem of Erect Vision, i. e., about the question how it can be explained that we see objects in an upright position when the image on the retina shows the object reversed.

Professor Mach in his article, "Facts and Mental Symbols," published in *The Monist* (January, 1892), offers the following explanation: "The light-sensations of the separate spots on the retina are connected with sensations and locality from the very beginning, and we *name* the places that correspond to the parts down, up."

This explanation seems to presuppose that there actually exists a difference between the directions of the motions of our hands and the position of the image on the retina, though the difference is not actually present in consciousness, because upward motions have become definitely associated with downward position of the image, and *vice versa*.

The explanation given by Johannes Müller, though not paying attention to all sides of the problem, appears to me more satisfactory as far as it goes. It is as follows: "In accordance with the laws of optics, the images are depicted on the retina in an inverted position as regards the objects. . . . The question now arises whether we really see the images, as they are, inverted, or erect as in the object itself. Since the image and the affected parts of the retina mean the same thing, the question physiologically expressed is this: Are the particles of the retina perceived in vision in their natural relation to the body? The view which I take of the question, and which I propounded in my work on the *Physiology of Vision*, is that even if we do see objects inverted, the only proof we can possibly have of it is that afforded by the study of the laws of optics; and that if everything is seen inverted, the relative position of the object of course remains unchanged. . . . Even the position of our hand while used in touch is seen inverted. The position in which we see objects we call, therefore, the erect position."

This explanation is clear and satisfactory, but, as that of Professor Mach, it presupposes that the position of the image on our retina is different from the position in which we actually see things, and this, in my opinion, is not the case. I think it can be easily proved from a psychological standpoint that the image on the retina has exactly the position in which we see things, i. e., that it is what we call erect.

From optical experiments we learn that objects projected upon some surface by means of a convex lense, such as that of our eye, will be inverted. Consequently all the objects that are projected upon my retina are inverted; but instead of saying that they are *erect* outside of us, and are upside down (from our point of view) on the retina, we must assume that just the opposite is the case.

If I see an inverted picture upon the retina of an excised eye, this picture in reality, therefore, must have just the opposite position, i. e., it must be *erect* upon that retina, and therefore *exactly as we see* objects. In reality all objects may have a reversed position as compared with our idea of them, but the picture on the retina has just the position that we call erect.

[The problem of Erect Vision does not appear to us as difficult as many writers would make us believe. Considering the

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mechanism of our organ of sight, it is obvious that when we look down upon the ground at the foot of a tree, the fixed point will appear in the upper part of the eye, while when we look up to the top of the tree the fixed point will lie in a lower part of the eye, and the whole picture of the tree upon the retina will be inverted. Now the problem of erect vision may be stated in the question, How can the inverted picture of the tree appear erect before me? But he who proposes this question forgets that sight does not consist of a sensation in the retina alone, but of a very complex process comprising also the sensations of the adjustment of the muscles of the eye and a co-operation of the memory of innumerable other experiences, especially of the tactual sense, by the help of which the retina-picture is interpreted. When the foot of a tree is fixed, it is not a single spot of the upper part of the retina which is seen, but together with it a direction downwards is perceived. Again, when the top of a tree is fixed, it is not an isolated spot in the lower part of the retina which is seen, but in connexion with this sensation a number of muscles round the eye and perhaps also in the neck are felt to be innervated, which mark the line of vision to be turned upwards. In the former case as well as in the latter the judgment is made unconsciously, and there is no choice but to see the inverted picture erect. The problem accordingly, so it seems to us, arises simply by limiting our attention to the retina, and the problem disappears as soon as we take into consideration the functions of all the auxiliary organs of vision, especially of the muscles of the eye.—Ed.]

CORRESPONDENCE.

THE MEANING OF "CHRISTIANITY."

To the Editor of The Open Court:

Permit me to correct an accidental misrepresentation of my thought concerning the meaning of Christianity, which appeared in your issue of September 27. In my second contribution to *The Open Court* I took special pains to say that I should be ashamed to define Christianity myself and that I utterly repudiate the dogmatism which sets up *its own* definition of Christianity and then demands that the world shall accept it. Neither you nor I can define a religion. The Christian Church, Christian tradition and history, the New Testament, *these* alone can define Christianity. And all these unite in defining Christianity as the religion which regards Jesus as the *Lord* and *Master* of mankind, the *ultimate* authority, to go beyond which is to cease to be a Christian. So-called "Liberal Christianity" ignores the *essential* element which permits the use of the Christian name because it sets reason above all other lords and masters, even the Lordship of Jesus tho' still retaining nominal acceptance thereof in its National Conference Constitution. Everybody cannot define the term Buddhist or Christian as he pleases; at least he should not because he has no right to. I drop the name Christian because I do not accept the authoritative definition of it. He who believes in unsectarianism and in the lordship of *universal human reason governed by experience* occupies a position obviously antithetical to that represented by Christianity and he should therefore discard the name. But this by no means involves rejection of the spiritual ideals to which Jesus gave expression and which are sometimes designated Christianity by indiscriminating persons. Alfred W. Martin.

NOTES.

The Annual Congress of the American Secular Union and Freethought Federation of America will be held at Madison Hall, 146 Madison street, Chicago, October, 26, 27, and 28, 1894 The demand of the Union is, that "not only in the Constitutions of the United States and of the several States, but also in the practical administration of the same, no privilege or advantage shall be conceded to Christianity or any other special religion, and whatever changes shall prove necessary to this end shall be consistently, unflinchingly and promptly made." The programme is an attractive one, and will include many well-known speakers. All are invited.

BOOK NOTICES.

We acknowledge the receipt of a copy of "The Annual Literary Index" for 1893, which has taken the place of the "Co-operative Index to Periodicals," and forms the second annual supplement to "Poole's Index to Periodical Literature" and to the A. L. A. Index to general literature. The work upon this volume seems to be accurate and complete; for the library and for the searcher in periodical literature it will be indispensable. It contains an "Index to Periodicals" and an "Index to General Literature," an "Author's Index," a List of Bibliographies of the Year and a Necrology of Authors. (Price $3.50, pp 213. New York: Office of the Publishers' Weekly, 28 Elm St.)

The American Mathematical Monthly, now in its first year, is edited by B. F. Finkel and J. M. Colaw, and published at Kidder, Missouri, by the Chubbuck Brothers. In the first five or six numbers Prof. George Bruce Halsted has a series of articles on the "Non-Euclidean Geometry." The chief space of the magazine is devoted to the solutions of problems usually involving no questions of principle and in some cases very trivial. The July number prints without comments (which perhaps after all was the best) Mr. Edward J. Goodwin's "Solution of the Quadrature of the Circle." As Mr. Goodwin's solution is nearly eighteen hundred years old, and so has not even the merit of novelty, it is difficult to understand how a serious journal could be brought to publish it; if on the ground of humor, we will say that that is an intellectual quality to which Mr. Goodwin's solution cannot aspire.

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THE ECONOMICAL CHARACTER OF PHYSICAL RESEARCH.

BY PROF. ERNST MACH.[1]

[CONCLUDED.]

The recognition of the economical character of science will now help us, perhaps, to understand better certain physical notions.

Those elements of an event which we call "cause and effect" are certain salient features of it, which are important for its mental reproduction. Their importance wanes and the attention is transferred to fresh characters the moment the event or experience in question becomes familiar. If the connexion of such features strikes us as a necessary one, it is simply because the interpolation of certain intermediate links with which we are very familiar, and which possess, therefore, higher authority for us, is often attended with success in our explanations. That *ready* experience fixed in the mosaic of the mind with which we meet new events, Kant calls an innate concept of the understanding (*Verstandesbegriff*).

The grandest principles of physics, resolved into their elements, differ in no wise from the descriptive principles of the natural historian. The question, "Why?" which is always appropriate where the explanation of a contradiction is concerned, like all proper habitudes of thought, can overreach itself and be asked where nothing remains to be understood.

Suppose we attributed to nature the property of producing like effects in like circumstances; just these like circumstances we should not know how to find. Nature exists once only. Our schematic mental imitation alone produces like events. Only in the mind, therefore, does the mutual dependence of certain features exist.

All our efforts to mirror the world in thought would be futile if we found nothing permanent in the varied changes of things. It is this that impels us to form the notion of substance, the source of which is not different from that of the modern ideas relative to the conservation of energy. The history of physics furnishes numerous examples of this impulse in almost all fields, and pretty examples of it may be traced back to the nursery. "Where does the light go to when it is put out?" asks the child. The sudden shrivelling up of a hydrogen balloon is inexplicable to a child; it looks everywhere for the large body which was just there but is now gone.

Where does heat come from? Where does heat go to? Such childish questions in the mouths of mature men shape the character of a century.

In mentally separating a body from the changeable environment in which it moves, what we really do is simply to extricate one group of sensations with which our thoughts are busied and which is of relatively greater stability than others, from the stream of all sensations. Absolutely unalterable this group is not. Now this, now that member of it appears and disappears, or is altered. In its full identity it never recurs. Yet the sum of its constant elements as compared with the sum of its changeable ones, especially if we consider the continuous character of the transition, is always so great that for the purpose in hand the former usually appear sufficient to determine the body's identity. But because we can separate from the group every single member without the body's ceasing to be for us the same, we are easily led to believe that after abstracting all the members something additional still remains. It thus comes to pass that we form the notion of a substance distinct from its attributes, of a thing-in-itself, whilst our sensations are regarded merely as symbols or indications of the properties of this thing-in-itself. But it would be much better to say that bodies or things are compendious mental symbols for groups of sensations—symbols that do not exist outside of thought. Thus, the merchant regards the labels of his boxes merely as indexes of their contents, and not the contrary. He invests their contents, not their labels, with real value. The same economy which induces us to analyse a group and to establish special signs for its component parts, parts which also go to make up other groups, may likewise induce us to mark out by some single symbol a whole group.

On the old Egyptian monuments we see objects represented which do not reproduce a single visual impression, but are composed of various impressions.

[1] An address delivered before the anniversary meeting of the Imperial Academy of Sciences, at Vienna, May 25, 1882. Translated by μκρκ.

The heads and the legs of the figures appear in profile, the head-dress and the breast are seen from the front, and so on. We have here, so to speak, a mean view of the objects, in forming which the sculptor has retained what he deemed essential, and neglected what he thought indifferent. We have living exemplifications of the processes put into stone on the walls of these old temples, in the drawings of our children, and we also observe a faithful analogue of them in the formation of ideas in our own minds. Only in virtue of some such facility of view as that indicated. are we allowed to speak of *a* body. When we speak of a cube with trimmed corners—a figure which is not a cube—we do so from a natural instinct of economy, which prefers to add to an old familiar conception a correction instead of forming an entirely new one. This is the process of all judgment.

The crude notion of "body" can no more stand the test of analysis than can the art of the Egyptians or that of our little children. The physicist who sees a body flexed, stretched, melted, and vaporised, cuts up this body into smaller permanent parts; the chemist splits it up into elements. Yet even an element is not unalterable. Take sodium. When warmed, the white, silvery mass becomes a liquid, which, when the heat is increased and the air shut out, is transformed into a violet vapor, and on the heat being still more increased glows with a yellow light. If the name sodium is still retained, it is because of the continuous character of the transitions and from a necessary instinct of economy. By condensing the vapor, the white metal may be made to reappear. Indeed, even after the metal is thrown into water and has passed into sodium hydroxide, the vanished properties may by skilful treatment still be made to appear; just as a moving body which has passed behind a column and is lost to view for a moment may make its appearance after a time. It is unquestionably very convenient always to have ready the name and thought for a group of properties wherever that group by any possibility can appear. But more than a compendious economical symbol for these phenomena, that name and thought is not. It would be a mere empty word for one in whom it did not awaken a large group of well-ordered sense-impressions. And the same is true of the molecules and atoms into which the chemical element is still further analysed.

True, it is customary to regard the conservation of weight, or, more precisely, the conservation of mass, as a direct proof of the constancy of matter. But this proof is dissolved, when we go to the bottom of it, into such a multitude of instrumental and intellectual operations, that in a sense it will be found to constitute simply an equation which our ideas in imitating facts have to satisfy. That obscure, mysterious lump which we involuntarily add in thought, we seek for in vain outside the mind.

It is always, thus, the crude notion of substance that is slipping unnoticed into science, proving itself constantly insufficient, and ever under the necessity of being reduced to smaller and smaller world-particles. Here, as elsewhere, the lower stage is not rendered indispensable by the higher which is built upon it, no more than the simplest mode of locomotion, walking, is rendered superfluous by the most elaborate means of transportation. Body, as a compound of light and touch sensations, knit together by sensations of space, must be as familiar to the physicist who seeks it, as to the animal who hunts its prey. But the student of the theory of knowledge, like the geologist and the astronomer, must be permitted to reason back from the forms which are created before his eyes to others which he finds ready made for him.

All physical ideas and principles are succinct directions, frequently involving subordinate directions, for the employment of economically classified experiences, ready for use. Their conciseness, as also the fact that their contents are rarely exhibited in full, often invests them with the semblance of independent existence. Poetical myths regarding such ideas,—for example, that of Time, the producer and devourer of all things,—do not concern us here. We need only remind the reader that even Newton speaks of an *absolute* time independent of all phenomena and of an absolute space—views which even Kant did not shake off, and which are often seriously entertained to-day. For the natural inquirer, determinations of time are merely abbreviated statements of the dependence of one event upon another, and nothing more. When we say the acceleration of a freely falling body is 9·810 metres per second, we mean the velocity of the body with respect to the centre of the earth is 9·810 metres greater when the earth has performed an additional 86400th part of its rotation—a fact which itself can be determined only by the earth's relation to other heavenly bodies. Again, in velocity is contained simply a relation of the position of a body to the position of the earth.[1] Instead of referring events to the earth we may refer them to a clock, or even to our internal sensation of time. Now, because all are connected, and each may be made the measure of the rest, the illusion easily arises that time has significance independently of all.[2]

The aim of research is the discovery of the equa-

[1] It is clear from this that all so-called elementary (differential) laws involve a relation to the Whole.

[2] If it be objected, that in the case of perturbations of the velocity of rotation of the earth, we could be sensible of such perturbations, and being obliged to have some measure of time, we should resort to the period of vibration of the waves of sodium light,—all that this would show is that for practical reasons we should select that event which best served us as the *simplest* common measure of the others.

tions which subsist between the elements of phenomena. The equation of an ellipse expresses the universal *conceivable* relation between its co-ordinates, of which only the real values have *geometrical* significance. Similarly, the equations between the elements of *phenomena* express a universal, mathematically conceivable relation. Here, however, for many values only certain directions of change are *physically* admissible. As in the ellipse only certain *values* satisfying the equation are realised, so in the physical world only certain *changes* of value occur. Bodies are always accelerated towards the earth. Differences of temperature, left to themselves, always grow less ; and so on. Similarly, with respect to space, mathematical and physiological researches have shown that the space of experience is simply an *actual* case of many conceivable cases, about whose peculiar properties experience alone can instruct us. The elucidation which this idea diffuses cannot be questioned, despite the absurd uses to which it has been put.

Let us endeavor now to summarise the results of our survey. In the economical schematism of science lie both its strength and its weakness. Facts are always represented at a sacrifice of completeness and never with greater precision than fits the needs of the moment. The incongruence between thought and experience, therefore, will continue to subsist as long as the two pursue their course by the side of each other ; but it will be continually diminished.

In reality, the point involved is always the completion of some partial experience ; the derivation of one portion of a phenomenon from some other. In this act our ideas must be based directly upon sensations. We call this measuring.[1] The condition of science, both in its origin and in its application, is a *great relative stability* of our environment. What it teaches us is interdependence. Absolute forecasts, therefore, have no significance in science. With great changes in celestial space we should lose our co-ordinate systems of space and time.

When a geometer wishes to understand the form of a curve, he first resolves it into small rectilinear elements. In doing this, however, he is fully aware that these elements are only provisional and arbitrary devices for comprehending in parts what he cannot comprehend as a whole. When the law of the curve is found he no longer thinks of its elements. Similarly, it would not become physical science to see in its self-created, changeable, economical tools, molecules and atoms, realities behind phenomena, forgetful of the lately acquired sapience of her older sister, philosophy, in substituting a mechanical mythology for the old animistic or metaphysical scheme, and thus creating no end of suppositious problems. The atom must remain a tool for representing phenomena, like the functions of mathematics. Gradually, however, as the intellect, by contact with its subject-matter, grows in discipline, physical science will give up its mosaic play with stones and will seek out the boundaries and forms of the bed in which the living stream of phenomena flows. The goal which it has set itself is the *simplest* and *most economical* abstract expression of facts.

* * *

The question now remains, whether the same method of research which till now we have tacitly restricted to physics, is also applicable in the psychical domain. This question will appear superfluous to the physical inquirer. Our physical and psychical views spring in exactly the same manner from instinctive knowledge. We read the thoughts of men in their acts and facial expressions without knowing how. Just as we predict the behavior of a magnetic needle placed near a current by imagining Ampère's swimmer in the current, similarly we predict in thought the acts and behavior of men by assuming sensations, feelings, and wills similar to our own connected with their bodies. What we here instinctively perform would appear to us as one of the subtlest achievements of science, far outstripping in significance and ingenuity Ampère's rule of the swimmer, were it not that every child unconsciously accomplished it. The question simply is, therefore, to grasp scientifically, that is, by conceptional thought, what we are already familiar with from other sources. And here much is to be accomplished. A long sequence of facts is to be displayed between the physics of expression and movement and feeling and thought.

We hear the question, "But how is it possible to explain feeling by the motions of the atoms of the brain ?" Certainly this will never be done, no more than light or heat will ever be deduced from the law of refraction. We need not deplore, therefore, the lack of ingenious solutions of this question. The problem is not a problem. A child looking over the walls of a city or of a fort into the moat below sees with astonishment living people in it, and not knowing of the portal which connects the wall with the moat, cannot understand how they could have got down from the high ramparts. So it is with the notions of physics. We cannot climb up into the province of psychology by the ladder of our abstractions, but we can climb down into it.

Let us look at the matter without bias. The world consists of colors, sounds, temperatures, pressures, spaces, times, and so forth, which now we shall not call sensations, nor phenomena, because in either term an arbitrary, one-sided theory is embodied, but simply *elements*. The fixing of the flux of these elements,

[1] Measurement, in fact, is the definition of one phenomenon by another (standard) phenomenon.

whether mediately or immediately, is the real aim of physical research. As long as, neglecting our own body, we employ ourselves with the interdependence of those groups of elements which, including men and animals, make up *foreign* bodies, we are physicists. For example, we investigate the change of the red color of a body as produced by a change of illumination. But the moment we consider the special influence on the red of the elements constituting our body, outlined by the well-known perspective with head invisible, we are at work in the domain of physiological psychology. We close our eyes, and the red together with the whole visible world disappears. There exists, thus, in the perspective field of every sense a portion which exercises on all the rest a different and more powerful influence than the rest upon one another. With this, however, all is said. In the light of this remark, we call *all* elements, in so far as we regard them as dependent on this special part (our body), *sensations*. That the world is our sensation, in this sense, cannot be questioned. But to make a system of conduct out of this provisional conception, and to abide its slaves, is as unnecessary for us as would be a similar course for a mathematician who, in varying a series of variables of a function which were previously assumed to be constant, or in interchanging the independent variables, finds his method to be the source of some very surprising ideas for him.[1]

If we look at the matter in this unbiassed light it will appear indubitable that the method of physiological psychology is none other than that of physics; what is more, that this science is a part of physics. Its subject-matter is not different from that of physics. It will unquestionably determine the relations the sensations bear to the physics of our body. We have already learned from a member of this academy (Hering) that in all probability a sixfold manifoldness of the chemical processes of the visual substance corresponds to the sixfold manifoldness of color-sensation, and a threefold manifoldness of the physiological processes to the threefold manifoldness of space-sensations. The paths of reflex actions and of the will are followed up and disclosed; it is ascertained what region of the brain subserves the function of speech, what region the function of locomotion, etc. That which still clings to our body, namely, our thoughts, will, when those investigations are finished, present no difficulties new in principle. When experience has once clearly exhibited these facts and science has marshalled them in economic and perspicuous order, there is no doubt that we shall *understand* them. For other "understanding" than a mental mastery of facts never existed. Science does not create facts from facts, but simply *orders* known facts.

Let us look, now, a little more closely into the modes of research of physiological psychology. We have a very clear idea of how a body moves in the space encompassing it. With our optical field of sight we are very familiar. But we are unable to state, as a rule, how we have come by an idea, from what corner of our intellectual field of sight it has entered, or by what region the impulse to a motion is sent forth. Moreover, we shall never get acquainted with this mental field of view from self-observation alone. Self-observation, in conjunction with physiological research, which seeks out physical connexions, can put this field of vision in a clear light before us, and will thus first really reveal to us our inner man.

Primarily, natural science, or physics, in its widest sense, makes us acquainted with only the firmest connexions of groups of elements. Provisorily, we may not bestow too much attention on the single constituents of those groups, if we are desirous of retaining a comprehensible whole. Instead of equations between the primitive variables, physics gives us, as much the easiest course, equations between *functions* of those variables. Physiological psychology teaches us how to separate the visible, the tangible, and the audible from bodies—a labor which is subsequently richly requited, as the division of the subjects of physics well shows. Physiology further analyses the visible into light and space sensations; the first into colors, the last also into their component parts; it resolves noises into sounds, these into tones, and so on. Unquestionably this analysis can be carried much further than it has been. It will be possible in the end to exhibit the common elements at the basis of very abstract but definite logical acts of like form,—elements which the acute jurist and mathematician, as it were, *feels* out, with absolute certainty, where the uninitiated hears only empty words. Physiology, in a word, will reveal to us the true real elements of the world. Physiological psychology bears to physics in its widest sense a relation similar to that which chemistry bears to physics in its narrowest sense. But far greater than the mutual support of physics and chemistry will be that which natural science and psychology will render each other. And the results which shall spring from this union will, in all likelihood, far outstrip those of the modern mechanical physics.

What those ideas are with which we shall comprehend the world when the closed circuit of physical and psychological facts shall lie complete before us, (that

[1] I have represented the point of view here taken for more than thirty years and developed it in various writings (*Erhaltung der Arbeit*, 1872; *The Forms of Liquids*, 1872 [*The Open Court*, No. 333]; *Bewegungsempfindungen*. 1875). The idea, though known to philosophers, is unfamiliar to the majority of physicists. It is a matter of deep regret to me, therefore, that the title and author of a small tract which accorded with my views in numerous details and which I remember having caught a glance of in a very busy period (1879-1880), have so completely disappeared from my memory that all efforts to obtain a clue to them have hitherto been fruitless.

circuit of which we see now only two disjoined parts,) cannot be foreseen at the outset of the work. The men will be found who will recognise the right and will have the courage, instead of wandering in the intricate paths of logical and historical accident, to enter on the straight ways to the heights from which the mighty stream of facts can be surveyed. Whether the notion which we now call matter will continue to have a scientific significance beyond the crude purposes of common life, we do not know. But we certainly shall wonder how colors and tones which were such innermost parts of us could suddenly get lost in our physical world of atoms; how we could be suddenly surprised that something which outside us simply clicked and beat, in our heads should make light and music; and how we could ask whether matter can feel, that is to say, whether a mental symbol for a group of sensations can feel?

We cannot mark out in hard and fast lines the science of the future, but we can foresee that the rigid walls which now divide man from the world will gradually disappear; that human beings will not only confront each other, but also the entire organic and so-called lifeless world, with less selfishness and with livelier sympathy. Just such a presentiment as this perhaps possessed the great Chinese philosopher Licius some two thousand years ago when, pointing to a heap of mouldering human bones, he said to his scholars in the rigid, lapidary style of his tongue: "These and I alone have the knowledge that we neither live nor are dead."

THE STRIKE OF THE HORSES.

ARTICLES as clear, keen, and elucidative as Prof. Ernst Mach's exposition of "The Economical Character of Physical Research" in the last and the present number of *The Open Court* are rare. I have no doubt that our readers greatly enjoy the classical simplicity of his style, for we justly count our honored contributor with Kirchhoff, Helmholtz, Thomson, Maxwell, and Tyndall among the foremost scientists of the world. The comparison made by Professor Mach between science and business is very suggestive and it seems to me that the analogies are perhaps greater than they may appear at first sight. Professor Mach says:

"Just as a single human being, restricted wholly to the fruits of his own labor, could never amass a fortune, but on the contrary the accumulation of the labor of many men in the hands of one is the foundation of wealth and power, so, also, no knowledge worthy of the name can be gathered up in a single human mind limited to the span of a human life and gifted only with finite powers, except by the most exquisite economy of thought and by the careful amassment of the economically ordered experience of thousands of co-workers. What strikes us here as the fruits of sorcery are simply the rewards of excellent housekeeping, as are the like results in civil life. But the business of science has this advantage over every other enterprise, that from *its* amassment of wealth no one suffers the least loss. This, too, is its blessing, its freeing and saving power."

I am not sufficiently familiar with Professor Mach's views on social and economical questions to say whether his words are intended to mean only what they imply, viz., that the "rewards of housekeeping in business are an amassment of wealth by which somebody suffers a loss." If this is Professor Mach's view I respectfully venture to differ from him. The economy established by our business methods is as much a gain all round as the economy of thought produced by science, and the blessing that rests on science finds its main realisation in its practical application to actual life.

Take as an instance any great business-establishment with which you happen to be acquainted. The economy which a wholesale business introduces is a benefit to all concerned in that business, to the laborers of all kinds, to the employers of labor, and to those who buy the goods. The prosperity of a great and economically conducted business may be a misfortune to competitors who can no longer compete with it, but we cannot in such a case speak of a loss. Economy in business, by organising the industry of many men so as to render them more productive, is a genuine gain, as much so as the economy of thought in science, and there is nowhere a loss.

We make this statement, fully conscious of the fact that it contradicts a favorite superstition of the times according to which we have much poverty because we have much wealth. The proposition is made: Reduce the wealth of our great money-kings and you will abolish the misery of our paupers. The tramp and the millionaire, the hut and the palace, the slave and the power-wielding lord are coupled together as if one were the cause of the other, as if riches could be produced only by making some one destitute, and power could rise into existence only by enslaving somebody. This view is wrong and the sooner we understand how deeply wrong it is, the quicker the eyes will be opened of both the lordly suppressors of their fellow-men and the slavery-scenting haters of power and wealth. A correct view of the solidarity of all members of society will ensure a wholesome evolution of a freer and nobler mankind; it will bring peace on earth among those who now imagine that their interests are at variance and hope to improve their conditions by destroying the very means by which mankind has, with great trouble, worked its way up from barbarism to a higher civilisation.

When saying that no economical organisation of labor entails any loss upon any member of society, we neither say that there are not business enterprises which underpay their laborers, nor would we begrudge the laborer the right of contending for higher wages.

On the contrary, we regard it as every one's duty to aspire for the improvement of the material conditions of his life by all the legal and rationally approved means at his disposal. Experience teaches that the civilisation of a country where laborers receive the highest pay is most advanced, and high wages, so long as they do not endanger the existence of a business, are more an advantage than a disadvantage. And the rule is, a high average of wages in a country indicates the presence of much wealth in the hands of capitalists. Every successful strike increases the amassment of wealth in few hands.

What is the consequence of a strike or any other movement that succeeds in securing for a certain class of laborers higher wages? It involves a reduction of the number of both the laborers and employers in that line of industry, and would, if carried to the extreme, exterminate the whole business.

The economical law will perhaps be clearer if stated in its generality and elucidated by an example taken from the fable-land of animals acting like men.

The horses struck and contended that they received no payment for all their work generously given to mankind for the mere sustenance of their lives. The justice of their claim was obvious, and their right to strike, since animals had acquired speech and the privilege of meeting in free assembly, could no longer be doubted. The claim of the horses consisted in demanding a dollar a day for every horse. They succeeded and all their demands were granted.

What was the consequence of this successful strike? All the horses whose labor brought less returns than the value of their food plus one dollar per day were discharged, and many livery-stables went out of existence. Inventors of machinery were greatly benefited, for steam-engines began more and more to replace the power of living horses. It was a sad sight to see the horses that had been dismissed, for they were doomed to a slow perdition; the higher condition of horsehood actually served to starve out a large class of horses who were unable to reach the standard the horses had fixed upon as the price of horsehood.

Those horses, however, who survived the change had reason to be satisfied; both the luxury and the labor horses were a choice breed and, although their lot was no easier than before, they had acquired a share, or at least the opportunity of acquiring a share, in the wealth of the earth.

Now do you think that the employers of horses who had managed to continue in business were dissatisfied with the new conditions? By no means. Their business was to a great extent of such a kind that the public could not do without horse-help. Hence it had been increased by the failure of many weak competitors, and the returns, too, had become proportionally greater, for they charged higher prices. Instead of one dollar per horse more in return to pay their employer, they had about two and sometimes even two and a half or three dollars. The reason was that such horse employers as made only one dollar, or scarcely one dollar per horse capita, could not stand the bad times which now and then swept over the country. They could just manage to pull through in good times and went to the wall on the appearance of the slightest social or financial disturbance.

High wages are as much a check upon an industry as a high duty, and there is an ascertainable highest and lowest margin. The lowest margin is such wages as will barely keep the laborer and his family alive; the highest margin is that which, if it were raised one cent, would shut down the factory on the first symptom of a financial crisis.

High duties sometimes tax commodities out of existence. Take for instance small beer. Americans who never visited Europe do not know what "small beer" means, because such a thing does not exist here, but if they go to Europe they will find that *einfaches Bier*, a kind of temperance beer, for it contains no alcoholic ingredients, is a very refreshing beverage, and is much used in the household to make an ice-cold beer-soup in summer, which would be very delicious during the hot season of our climate. Why is "small beer" not brewed in America? Simply because we have all over the United States a tax on all kinds of beers, and this tax taxes the cheap beers out of existence. No one would pay five cents for a pint of small beer, and otherwise the brewing does not pay; no brewer could afford to pay the tax on small beer, and our big brewers, who pay the beer-tax, do not care, for they find more profit in brewing lager beer.

When we maintain that the economy of a well-conducted business is under all circumstances a gain and involves no direct loss to any one (for otherwise the employee would not agree to work for his employer), we understand by business, genuine enterprises of service to mankind, and exclude all such establishments which, like gambling-houses, are based upon immoral principles. That there are many business transactions in which the gain of one is the exact equivalent of the loss of some one else cannot be denied; but the existence of frauds in business does not disprove the truth that all economical organisations of labor in industrial enterprises, all trade and commerce if it is the right kind, is of mutual benefit, and pure gain without any loss. Fraudulent business methods only cause a loss to one party, and the same is true of the economy of thought, which has been found to be the lasting boon of scientific work. The results of science, too, can be misused for criminal purposes; and how often one scientist succeeds in getting for

himself the glory of a discovery which belongs to one of his fellow-workers! Stealing is neither impossible nor unknown in the intellectual realm of science, the arts, and the *belles-lettres*. There are acquisitions of scientific renown which entail a loss on some one else to whom the reward of a general recognition rightfully belongs. And very often personal jealousies keep one influential man, who has the public ear, from acknowledging the truth of a discovery, which is thus many years belated, and so an invaluable amount of important knowledge destroyed before it can be properly tested and utilised.

There is a superstition prevalent in absolute monarchies that the power of king or emperor is built upon the serfdom of his subjects, and therefore sovereign rulers are in the habit of jealously guarding the burdensome privileges of their autocracy. The fact is, that if the kings of England had been and had remained autocrats, England would have remained an unimportant little island, like Corsica, or Madagascar, or Borneo; and if the Czar of Russia were the sovereign of a free nation, which could freely develop all its latent possibilities, the chief of a nation like the English nation, he would, with the enormous territory of his empire, be ten times more powerful as the leader of the destinies of a ten times more civilised people. The English kings certainly did not lose in power when they surrendered those of their privileges which were a check upon the free development of their subjects.

True power is not built upon the necks of slaves, but is the result of the free coalition of free men.

One of the first conditions of progress is the recognition of the laws of social economy. There can be no question about the right of all people to secure for themselves the best possible conditions; but violence and the destruction of wealth are not the right means to secure these rights for manual labor. The methods preached by many labor-agitators would frequently bring about, if carried into effect, quite different results from those expected or promised. And capitalists, too, are mistaken when they imagine they can prosper only so long as they keep their employees in a state of wretched poverty.

Let every one fight for his rights by all legal means, especially strikes, with careful abstention from violence or threats of violence; but let us at the same time understand that under normal conditions the prosperity of one, far from being a loss to others, contributes to the welfare of all. P. C.

CORRESPONDENCE.

A LETTER FROM JAPAN.

To the Editor of The Open Court:

You kindly inquire as to the cause of my hurrying home so suddenly. My coming home has nothing to do with the war now going on between Japan and China. I am not in danger of being drafted in any near future, although I should be only too glad to serve the army if such a crisis comes.

You also ask me to state impartially something about the present war. I am willing to do so, but as your letter came to me after such a long delay I think it is almost too late for me to say anything of interest. Let me simply tell you that the war is growing in its dimensions almost every minute. We shall not be satisfied at all until we come to Pekin either to beat or to be beaten. You know all about the victories of Japan both on land and on water. We do not mean, however, to fight for the sake of fighting. Neither do we mean to glory in our victory or in our conquest. Our motive is nobler. We intend to help Corea in its struggle for independence and civilisation, and to wake up China from its long dream of ignorance and darkness. We struggle not merely for our own sake, but for the real good of China and of Eastern Asia as a whole This is our ambition in this present war.

The attitude of Japan towards its neighbor China in the present war is in many respects similar to that of the United States to Japan some fifty years ago, when Commodore Perry visited Japan. We mean to play the part of the United States of that time, while China wittingly or unwittingly is playing the part of Japan of that time.

You know the cause of this present war. There is no injustice or wrong on our part. "Justice" is our motto, and "civilisation" is our object. We do not like war, but we could not evade it. However, from another point of view we may say that this war is probably the best chance for us Japanese to show the strength of civilisation to the rest of the world, although it is a very expensive way of doing so.

I wish you could see some, at least, of the patriotic demonstrations which are found all over the country. The whole Japanese nation is as if on fire. Almost every soldier—nay, every common person—is willing to go to war for his country, and for its righteous cause; indeed, he is willing to die. Such is our national feeling about the present war. NOBUTA KISHIMOTO.

ALWAYS ONE.

(Translated from the German of Goethe.)

LIFE I never can divide,
Inner and outer together you see.
Whole to all I must abide,
Otherwise I cannot be.
Always I have only writ
What I feel and mean to say.
Thus, my friends, although I split,
Yet remain I one alway.

BOOK NOTICES.

Ueber die Ursachen der Blitzschläge in Bäume. By Dimitrie Jonesco. (Stuttgart: E. Koch. 1892. Pp. 62.) According to this investigation, all kinds of trees are liable to be struck by lightning at high electrical tensions; oleous trees are safe against lightning in proportion to the amount of oil which they contain; but both oleous and amylaceous trees when poor in oil are sought out by the lightning; the aqueous contents of trees play no essential part; dead limbs increase the liability of being struck; bark and foliage do not alter the electrical conductive capacity of trees; and finally, the character of the soil stands in no direct connexion with the frequency of accidents.—*Notiz über eine einfache Methode, um dielectrische Flüssigkeiten auf ihr Leitungsvermögen zu untersuchen*. By K. R. Koch. (Leipsic: J. A. Barth. 1893. Pp. 3.) The result of this research is, that the cause of the conductivity of

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dielectric liquids is impurities of the substance; for example, benzol when very pure is apparently a complete and perfect insulator of electricity.—*Ueber künstliche Gletscher*. By K. R. Koch. (Leipsic: J. A. Barth. 1894. Pp. 8.) This communication contains directions and diagrams for making models of glaciers; by means of viscous liquids the chief phenomena of glacier motion can be reproduced with interesting and instructive results.—*Ethnologische Mitteilungen aus Ungarn*. This is a magazine of folklore for Hungary and the related countries, and has been in existence three years, being edited and published by Dr. Anton Herrmann. Much of its space is devoted to gypsy-lore. (Budapest, I., Szent-Györgyutcza. 2.)—In this connexion it may be mentioned for the benefit of lovers and students of folklore that an *International Dictionary of Contemporaneous Folklorists* is to be published by subscription in Paris (G. Colombier, 4 Rue Cassette) under the direction of Prof. M. Henry Carnoy. It will contain biographies of all the notable folklorists of the world with their portraits, addresses, and a list of their works. According to the prospectus any person who has thirty-five francs can obtain a notice, accompanied with his photograph, in this dictionary. Undoubtedly, it will be a bulky volume, and as a *directory* of folklorists will have its value.—*Cosmopolis Revista Universal*, a magazine first issued in May, 1894, and purporting to be the universal review of the Spanish Main, published at Caracas, Venezuela, ("Imprenta Bolivar," Oeste 4, No. 4). In the opening article of the first number, the editors discuss the mission of the magazine from a patriotic and humanistic point of view. In the second article Pedro César Dominici treats of modern neurosis and of the decadents. There is a review of M. Julien Leclercq's "Six Masters," two poems, and the first installment of Daudet's "Tartarin of Tarascon." The authors of the articles are from the Northern South American States, from Cuba, and from the Central American States.

The American University and the American Man. The Second Commencement Address at the Leland Stanford Junior University. By George Elliot Howard. (Palo Alto, California. 1893.) Professor Howard reviews the rise of the new humanism and considers its effects upon the culture of to day. The ideal springing from this movement is "a spiritual utilitarianism whose creed is social perfection." Professor Howard justly rates the utility of knowledge very high, and sees in the practical emphasis which Americans lay upon it one of the best of the national tendencies. This tendency is incorporated in the practical character of our universities, which in a short time will place them much higher as institutions of education than the lop-sided systems of Europe. The new American university will secure a harmonious development of the mind and the character. Its function is to fit men to meet the grave social problems of the present; "to direct self-conscious society in the dual task of self-regeneration and self-development." In the present tendency of American educationists to imitate slavishly the institutions of Europe, Professor Howard's plea is very timely.—*Can Organic Life Exist in the Planetary System Outside of the Earth?* By C. A. Stetefeldt. (Astronomical Society of the Pacific.) Mr. Stetefeldt tries to show from a consideration of the physiography and meteorology of the bodies of the planetary system that organic life cannot exist outside the earth. The conclusion from the data which he cites would be that organic life like that on the earth does not *now* exist on the planets. Mr. Stetefeldt admires "the inductive acumen of the theologians who considered the earth the most important of the planets, and the centre of creation. Although their opinions were not based upon scientific facts, they arrived at the truth, nevertheless."

Instructors and professional educationists will derive profit from an examination of the *Programme des cours* of the Brussels *Institut des Hautes Etudes* of the *Ecole Libre D'Enseignement Supérieur*. This institution aims to give an education distinct from the traditional professional courses, and more adapted to the needs of the times. The faculty includes many eminent names.

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THE PILGRIMAGE OF ANTHONY FROUDE.

BY MONCURE D. CONWAY.

I.

James Anthony Froude was not only the ablest historian of England, but himself a historic figure. He was the last author who had the distinction of having one of his books formally burned at Oxford, the first to avail himself of the law allowing clergymen to free themselves entirely from holy orders, and he lived to be appointed (1892) Professor of History in the University where his book was burned. He was appointed too by a Tory prime minister. It took just forty-four years for the angry Nemesis of Oxford faith to be thus finally extinguished by the Nemesis of English rationalism. According to a contemporary authority (*The Prospective Review*, Vol. V., p. 163), the *Nemesis of Faith*, published in 1848, was "solemnly" burned in the Public Hall of Exeter College (of which Froude was a Fellow) by the Senior Tutor, who made a funeral speech over it. Mr. Froude was too modest a man to call attention to picturesque points in his personal history, and their significance has escaped attention because his intellectual progress has been too individual and too scholarly to excite public discussion. Flutes are drowned by drum-beats, as Sâdi says; and in religion the air is always resonant with drums. I have even now been reading obituary notices which ignore the spiritual career of Froude, and speak of him as a mere layman. Seventeen years ago, when the third series of his *Short Studies on Great Subjects* was under review, I received a note from Froude on another matter, at the close of which he says:

"My little volume of historical essays has sold very well, and has now come out in a cheaper form. No one, however, seems to have caught what I meant either by 'Divers Cæsar' or by the 'Sea Studies.' One must not count on any exertion of intellect on the part of one's readers. They must be told straight out what one intends, or they miss the point—though as plain as the conclusion of a syllogism."

The two essays named in the note, taken in conjunction with that on "Lucian" in the same volume, represent as trenchant and comprehensive an account of the natural history of Christianity, and its evolution out of so-called paganism, as was ever condensed into a hundred pages. Nor is there the slightest veil on the scholar's thought as the temple-veil of supernaturalism shrivels away at his touch. Only his touch is sympathetic, generous, delicate. And as there are freethinkers who can never receive a kind word from an orthodox man without setting him down as a secret unbeliever, so there are orthodox people who can never hear a respectful word from a freethinker without regarding him as a disguised believer. "I could never attack Christianity," Froude once said to me; "I would as soon think of demanding extermination of the horse. The thing is here,—bred for certain work, and doing it in a fashion. Were the horse set up to be worshipped as a sacred animal, scientific explanations would become necessary. So with any institution. So with Christianity." I remember these forcible words, and that afterwards Froude argued that as Christianity had been fashioned and refashioned again and again, it might be adapted to new needs, could there be produced spirits finely touched for such fine issues. "As for the superstitions investing Christianity, they inevitably moulder, and hardly concern us so much as the growing superstitions which fancy themselves reasonable and progressive."

I conclude this first paper with two remarkable passages from *The Nemesis of Faith*, a book now rare, to which probably few of your readers have access. It should be borne in mind that it was written forty-four years ago, when the comparative study of religions was in its infancy.

"People canvass up and down the value and utility of Christianity, and none of them seem to see that it was the common channel towards which all the great streams of thought in the Old World were tending, and that in some form or other when they came to unite it must have been. That it crystallised round a particular person may have been an accident; but in its essence, as soon as the widening intercourse of the nations forced the Jewish mind into contact with the Indian and the Persian and the Grecian, such a religion was absolutely inevitable.

"It was the development of Judaism in being the fulfilment of the sacrificial theory, and the last and purest conception of a personal God lying close above the world, watching, guiding, directing, interfering.

Its object was no longer the narrow one of the temporal interests of a small people. The chrysalis had burst its shell, and the presiding care extended to all mankind, caring not now for bodies only but for souls. It was the development of Parseeism in settling finally the vast question of the double principle, the position of the evil spirit, his history, and the method of his defeat; while Zoroaster's doctrine of a future state was now for the first time explained and justified; and his invisible world of angels and spirits, and the hierarchies of the seven heavens, were brought in subjection to the same one God of the Jews.

"It was the development of the speculative Greek philosophy of the school of Plato, of the doctrine of the Spirit, and the mysterious Trinity, the ἓν καὶ πᾶν, the word or intellect becoming active in the primal Being; while, lastly, the Hindu doctrine of the incarnation is the uniting element in which the other three combine, and which interpenetrates them with an awful majesty, which singly they had not known.

"So these four streams uniting formed into an enormous system, comprehending all which each was seeking for, and bringing it all down home, close to earth, human, direct, and tangible, and supplying mankind with full measure of that spiritual support with which only minds most highly disciplined can afford to dispense."

The other passage—I condense it with reluctance—can hardly be matched in literature for refined eloquence. It is from a letter written by a young clergyman, troubled by sceptical doubts, to his friend:

"There is a village in the wood, two or three miles from here—there was an abbey there once. But there is nothing left of the abbey but its crumbling walls, and it serves only for a burying-ground and for sentimental picnic parties. I was there to-day; I sat there a long time, I do not know how long—I was not conscious of the place. I was listening to what it was saying to me. I will write it down and look at it, and you shall look at it: an odd enough subject for a Christian ruin to choose—it began to talk about paganism. 'Do you know what paganism means?' it said. Pagani, pagans, the old country villagers. In all history there is no more touching word than that one of Pagan. In the great cities, where men gather in their crowds and the work of the world is done, and the fate of the world is determined, there it is that the ideas of succeeding eras breed and grow and gather form and power, and grave out the moulds for the stamp of after ages. There it was, in those old Roman times, that the new faith rose in its strength, with its churches, its lecture-rooms, its societies. It threw down the gorgeous temples, it burnt their carved cedar work, it defiled the altars and scattered the ashes to the winds. The statues were sanctified and made the images of saints, the augurs' colleges were rudely violated, and they who were still faithful were offered up as martyrs or scattered as wanderers over the face of the earth, and the old gods were expelled from their old dominion—the divinity of nature before the divinity of man. . . . 'And now look at me,' the old ruin said; 'centuries have rolled away, the young conqueror is decrepit now; dying, as the old faith died, in the scenes where that faith first died; and lingering where it lingered. The same sad, sweet scene is acting over again. I was the college of the priests, and they are gone, and I am but a dead ruin, where the dead bury their dead. The village church is outliving me for a few more generations; there still ring, Sunday after Sunday, its old reverend bells, and there come still the simple peasants in their simple dresses—pastor and flock still with the old belief; there beneath its walls and ruins they still gather down into the dust, fathers and children sleeping there together, waiting for immortality; wives and husbands resting side by side in fond hope that they shall wake and link again the love-chain which death has broken; so simple, so reverend, so beautiful! Yet is not that, too, all passing away, away beyond recall? The old monks are dead. The hermit-saints and hallowed relics are dust and ashes now. The fairies dance no more around the charmed forest ring. They are gone, gone even here. The creed still seems to stand; but the creed is dead in the thoughts of mankind. Its roots are cut away, down where alone it can gather strength for life, and other forms are rising there; and once again, and more and more, as day passes after day, the aged faith of aged centuries will be exiled as the old was to the simple inhabitants of those simple places. Once, once for all, if you would save your heart from breaking, learn this lesson—once for all you must cease, in this world, to believe in the eternity of any creed or form at all. Whatever grows in time is a child of time, and is born and lives, and dies at its appointed day like ourselves. . . . Life is change; to cease to change is to cease to live; yet if you may shed a tear beside the death-bed of an old friend, let not your heart be silent on the dissolving of a faith.'"

HOLMES'S ANTI-DOGMAS.

BY DR. FELIX L. OSWALD.

A few months ago the freethinkers of the semi-French city of Barcelona arranged a festival to celebrate the news from a little town in western Aragon, where a gang of ruffians had attacked a supposed witch and dragged her about in a sack, till they were routed by the alcalde with a posse of local rationalists.

"What a sign of the times," said the orator of the symposium, "and what a step of progress since the days when that mob would have been headed by a pro-

cession of *mata-bruxas*,"—official witch-hunters with their inquisitorial experts and faggot-contractors.

In a similar manner the American Liberals of the last fifty years ought to have appreciated the physical and moral survival of the wizard Holmes. The *mata-bruxas* of the American Inquisition, it is true, were on his track for a while; and some of his heresies have neither been forgotten nor forgiven; but what a stride of progress since the time when Unitarians were thought unfit to practise law or medicine, and when the bigots who released Thomas Campanella, after spraining a few of his joints, would probably have burnt Holmes for attacking their centre-dogma and exposing the roots of their delusions.

Nor is it probable that the physicians of the sixteenth century would have protested against a sentence of that kind. Holmes's reform-theories were not limited to educational topics, and the keenest shafts of his wit were about evenly distributed between the religion of John Calvin, the abuse of drugs, and the vice of moral cowardice, *alias*, the conventional silence about the absurdities of a dominant creed.

"Far better," he says, "to be a *bonnet rouge*, a red cap of the barricades, my friends, than to be a conservatist, if conservatism makes it our duty to let all the drains of thought choke up and keep the soul's windows down, to shut out the sun and the breezes, till the soul sickens with moral typhus and we begin to snore in its coma or rave in its delirium. . . ."

"Or, is it not true that Truth gets well if she is run over by a locomotive, while Error dies of lockjaw if she scratches her finger? I never heard of a mathematician being alarmed for the safety of a demonstrated proposition, and I think that the dread of discussion generally implies feebleness of inward conviction."

"Suppose," says his Professor, in quizzing an adversary on the dogma of total depravity, "suppose the Medical Society should refuse to give us an anodyne or set a broken limb, until we had signed our belief in a certain number of propositions, of which, we will say, this is the first: (1) 'All men's teeth are naturally in a state of total decay, and therefore no man can bite until every one of them is extracted and a new set inserted, according to the principles of dentistry adopted by this Society.' Of course, those doctors would have a right to say we shan't have any rhubarb if we don't sign these articles . . ., but then to ask a fellow not to discuss their propositions before he signs them is what I should call boiling it down a little too strong."

Like Frederick Schiller, Holmes pleads his *religion* as an excuse for his aversion to sham creeds. "The main-spring of the world's onward religious movement," he says, "is not in the Church. . . . It is the people that makes the clergy, and not the clergy that makes the people. There never was a guild of dealers or a company of craftsmen that did not need sharp looking after."

"You may think me little better than a heathen," says he, in parrying the attack of another critic, "but let me ask you, which seems to you nearest heaven: Socrates drinking his hemlock, Regulus going back to the enemy's camp, or that old New England divine, sitting comfortably in his study and chuckling over his conceit of a poor old woman who had been burned to death in his own town, going 'roaring out of one fire into another' . . . or the Rev. Mr. Calvin and his associates, who burned my distinguished scientific brother with green faggots?" . . . The dogmas of such people about the Father of Mankind and his creatures are of no more account in my opinion than those of a council of Aztecs."

Moritz Carriere, in his *Doctrines of the Reformation*, ventures a similar remark, but would hardly have risked the following impeachment of contemporary bigots: "In our lunatic asylums," says the Beacon Street philosopher, "we frequently see persons sent there in consequence of what are called religious mental disturbances. I confess that I think better of them than of many who hold the same opinions and keep their wits and appear to enjoy life very well, outside of the asylums. Any decent person ought to go mad if he really holds such opinions. It is very much to his discredit, in every point of view, if he does not. Anything that is brutal, cruel, and makes life hopeless for most of mankind, and perhaps for whole races,—*anything that assumes the necessity of exterminating instincts which were given to be regulated, if received, ought to produce insanity in every well-regulated mind.* I am very much ashamed of some people for retaining their reason, when they ought to know perfectly well, that if they were not the most stupid or most selfish of human beings they would become *non-compotes* at once."

That the perpetrator of those diatribes escaped the penalty of social ostracism would be a mystery even to a community of liberals, if it were not for the fact that Holmes reserved his protests for a period when his reputation and popularity had already been firmly established, and that in New England that period moreover coincided with a revival of the intellectual reform set in motion by the writings of Franklin and Paine. That movement continued long enough to alarm the obscurantists for the safety of their own strongholds, and deter them from the risk of increasing the odium of their polemics by a persistent crusade against a favorite of the English-reading nations. "It amuses me," he says, "to look back at some of the attacks provoked by my controversial essays. Opinions which do not excite the faintest show of temper at this time from those who do not accept them,

were treated as if they were the utterances of a nihilistic incendiary." (*The Professor*, Preface of 1882.)

"Some persons," he adds, "may even now take offence at certain expressions of my opinions; but a day may come when they will be thought too timid and conservative for intelligent readers."

His views on the Nemesis of Faith differed, indeed, widely from those of his friend Froude. "Do you ask what plague has fallen on the practitioners of theology?" he says, after pointing out the disintegrating tendency of Homeopathy, in its effect upon the old-school theories of medicine. "I will tell you, then. It is *Spiritualism*. While some are crying out against it as a delusion of the Devil, and some are laughing at it as an hysteric folly, and some are getting angry with it as a mere trick of interested or mischievous persons, Spiritualism is quietly undermining the traditional ideas of the future state which have been and are still accepted,—not merely in those who believe in it, but in the general sentiment of the community to a larger extent than most good people seem to be aware of. It needn't be true, to do this, any more than Homeopathy need, to do its work. The Spiritualists have some pretty strong instincts to pry over, which no doubt have been roughly handled by theologians at different times. And the Nemesis of the pulpit comes in a shape it little thought of. You cannot have people of cultivation, of pure character, large-hearted women, grave judges, men of science, shrewd business-men, professing to be in communication with the spirit world and keeping up constant intercourse with it, without it gradually reacting on the whole conception of that other life. . . ."

". . . . In point of fact, it is one of the many results of Spiritualism to make the permanent destiny of the race a matter of common reflexion and discourse, and a vehicle for the prevailing disbelief in the Middle-Age doctrines on the subject . . . . a subject that involves all we have and all we hope, not merely for ourselves, but for the dear people whom we love best,—noble men, pure and lovely women, ingenuous children—about the destiny of nine tenths of whom you know the opinions that would have been taught by those old man-roasting, woman-strangling dogmatists."

Holmes's doxy, however, had a positive as well as negative mission. "The great end of existence," he says, "is *to harmonise man with the established order of things*"—one of the best extant summaries of the religion of nature. "Do you think there is a chance of a future existence?" asked one of his New England friends. "I *hope* so," said Holmes, and his private speculations on that point appear to have varied from agnosticism to a kind of vague and poetic pantheism. "In the hearts of many men and women, and let me add children, there is a foreboding that there is a *Great Secret waiting for them*," says he in his essay on the metaphysics of love (*The Professor*, p. 177), "a secret of which they get hints now and then, perhaps oftener in early than in later years. These hints come sometimes in dreams, sometimes in sudden, startling flashes,—second wakings, as it were,—a waking out of the waking state which last is very apt to be a half-sleep. I have many times stopped short and held my breath, and felt the blood leaving my cheeks, in one of those sudden clairvoyant flashes. Of course, I cannot tell what kind of a secret this is, but I think of it as a disclosure of certain relations of our personal being to time and space, to other intelligences, to the procession of events, and to their First Great Cause. The revelations of this secret are broken up, as it were, into fragments, but are never written out for most of us as a complete sentence, in this life. I do not think it could be; for I am disposed to consider our belief about such a possible disclosure rather as a kind of a premonition of an enlargement of our faculties in some future state of existence. . . . Glimpses of it are now and then revealed in the face of a beautiful woman, but not in the words of Love. The Secret, I mean, lies deeper than Love. Some, I think,—Wordsworth, for instance,—spell out a portion of it from certain beautiful natural objects, landscapes, flowers, and others. I could mention several poems that have shadowy hints which seem to me to come near the region where I think it lies."

Had Holmes read Goethe's "Ganymede," or did his allusions circumscribe a hint that there are higher ideals of ethics than the worship of sorrow? "Cheerfulness," he says, "is something more than a virtue, it is a duty which the human soul owes to its physical yoke-fellow." "Of our duties to the Head physician of this vast planetary ambulance which we call Earth, I need say little," he tells the graduates of his Harvard class; "we read the Creator chiefly through his creatures. If performed in the right spirit there is no higher worship than the unpurchased service of the medical priesthood. The sick man's faltered blessing reaches heaven through the battered roof of a hovel before the Te Deum that reverberates through vast cathedrals."

For a Fellow of the Massachusetts Medical Society, and Harvard Professor of Anatomy and Physiology, his remarks on the fallacies of the orthodox drug-school are surprisingly candid. "We cannot yet dispense with opium," he says, "nor with the vapors that work the miracle of anæsthesia, but if the whole of our materia medica, with the exceptions named, could be flung to the bottom of the sea, it would be all the better for mankind—and all the worse for the fishes." (*Currents and Counter Currents*, p. 39.)

"Look at medicine," says his Professor, "big wigs, gold-headed canes, Latin prescriptions, shops full of abominations, recipes a yard long, 'curing' patients as a sailor brings a wind by whistling, selling lies at a guinea a piece,—a routine, in short, of giving unfortunate sick people a mess of things either too odious to swallow or too acrid to hold."

His pamphlet on *Homeopathy and Its Kindred Delusions*, provoked a storm of controversy almost unparalleled in the history of medical literature, but his chief objection to the system of Hahnemann was, after all, a misgiving that it would keep alive the popular belief in the necessity of drug-remedies and thus prove a barrier to the progress of hygienic reform.

Holmes's views on the temperance problem were at first those of the "mild stimulant school" of his European colleagues, but further reflexion made him recognise the progressive tendency of the alcohol habit, and his ultimate verdict on the doctrine of Anacreon was nearly expressed in his parody of a Bacchanalian ode:

"Come, fill a fresh bumper,—for why should we go
While the *nectar* (logwood) still reddens our cups as they flow!
The *purple-hued clusters* (half-ripened apples) their life-dews have bled,
How sweet is the *breath* (taste) of the *fragrance they shed* (sugar of lead)
For summers *last roses* (rank poison) lie hid in the wines,
That were garnered by *maidens who laughed through the vines* (stable-boys smoking long nines).
Then a *smile* (scowl) and a *glass* (howl) and a *toast* (scoff) and a *cheer* (sneer)
For all *the good wine, and we've some of it here* (strychnine and whiskey, and ratsbane and beer)
In cellar, in pantry, in attic, and ball,
Long live the gay servant that laughs for us all (Down, down, with the tyrant that ruins us all)."

"The sun does not look quite as bright as formerly," wrote the genial octogenarian a few years ago, "and my resources of comfort are getting more and more limited to the 'warmth within that comes from cold without'; still I cannot say that I long for the night which I have never feared, and like that paralytic French philosopher, mentioned by Edmond About, I shall have no objection, *par pure curiosité*, to tarry a little longer, and wait for the next surprise of this age of wondrous inventions."

Holmes's sombre moods, indeed, never bordered on pessimism. Among the discords of a moral chaos he had tried to achieve self-salvation by conformity to the religion of science, and to the very end of his long life the successful solution of that problem was attested by the enjoyment of almost perfect health, and the still rarer blessing of a harmonious mind.

ON THE PRINCIPLE OF COMPARISON IN PHYSICS.[1]

BY PROF. ERNST MACH.

Twenty years ago when Kirchhoff defined the object of mechanics as the "description, in complete and very simple terms, of the motions which occur in nature," he produced a peculiar effect by the statement. Fourteen years subsequently, Boltzmann, in the lifelike picture which he drew of the great inquirer, could still speak of the universal astonishment at this novel method of treating mechanics, and we meet with epistemological treatises to-day, which plainly show how difficult is the acceptance of this point of view. A modest and small band of inquirers there were, however, to whom Kirchhoff's few words were tidings of a welcome and powerful ally in the epistemological field.

Now, how does it happen that we yield our assent so reluctantly to the philosophical opinion of an inquirer for whose scientific achievements we have only unqualified praise? One reason probably is that few inquirers can find time and leisure, amid the exacting employments demanded for the acquisition of new knowledge, to inquire closely into that tremendous psychical process by which science is formed. Further, it is inevitable that much should be put into Kirchhoff's lapidary words that they were not originally intended to convey, and that much should be found wanting in them that had always been regarded as an essential element of scientific knowledge. What can mere description accomplish? What has become of explanation, of our insight into the causal connexion of things?

* * *

Permit me, for a moment, to contemplate not the results of science, but the mode of its *growth*, in a frank and unbiassed manner. We know of only *one* source of *immediate revelation* of scientific facts—*our senses*. Restricted to this source alone, thrown wholly upon our own resources, obliged to start always anew, what could the isolated individual accomplish? Of a stock of knowledge so acquired the science of a distant negro hamlet in darkest Africa could hardly give us a sufficiently humiliating conception. For there that veritable miracle of thought-transference has already begun its work, compared with which the miracles of the spiritualists are rank monstrosities—*communication by language*. Reflect, too, that by means of the magical characters which our libraries contain we can raise the spirits of the "the sovereign dead of old" from Faraday to Galileo and Archimedes, through ages of time—spirits who do not dismiss us with ambiguous and derisive oracles, but tell us the best they know; then shall we feel what a stupendous and indispensable factor in the formation of science *communication* is. Not the dim, half-conscious *surmises* of the acute observer of nature or critic of humanity belong to science, but only that which they possess clearly enough to *communicate* to others.

But how, now, do we go about this communication of a newly acquired experience, of a newly observed fact? As the different calls and battle-cries of gregarious animals are unconsciously formed signs for

[1] An address delivered before the General Session of the German Association of Naturalists and Physicians, at Vienna, Sept. 24, 1894.

a common observation or action, irrespective of the causes which produce such action—a fact that already involves the germ of the concept; so also the words of human language, which is only more highly specialised, are names or signs for universally known facts, which all can observe or have observed. If the mental representation, accordingly, follows the new fact at once and *passively*, then that new fact must, of itself, be immediately constituted and represented in thought by facts already universally known and commonly observed. Memory is always ready to put forward for *comparison* known facts which resemble the new event, or agree with it in certain features, and so renders possible that elementary internal judgment which the mature and definitively formulated judgment soon follows.

Comparison, as the fundamental condition of communication, is the most powerful inner vital element of science. The zoölogist sees in the bones of the wing-membranes of bats, fingers; he compares the bones of the cranium with the vertebræ, the embryos of different organisms with one another, and the different stages of development of the same organism with one another. The geographer sees in Lake Garda a fjord, in the Sea of Aral a lake in process of drying up. The philologist compares different languages with one another, and the formations of the same language as well. If it is not customary to speak of comparative physics in the same sense that we speak of comparative anatomy, the reason is that in a science of such great experimental activity the attention is turned away too much from the *contemplative* element. But like all other sciences, physics lives and grows by comparison.

* * *

The manner in which the result of the comparison finds expression in the communication, varies of course very much. When we say that the colors of the spectrum are red, yellow, green, blue, and violet, the designations employed may possibly have been derived from the technology of tattooing, or they may subsequently have acquired the significance of standing for the colors of the rose, the lemon, the leaf, the cornflower, and the violet. From the frequent repetition of such comparisons, however, made under the most manifold circumstances, the inconstant features, as compared with the permanent congruent features, get so obliterated that the latter acquire a fixed significance independent of every object and connexion, or take on as we say an *abstract* or *conceptual* import. No one thinks at the word "red" of any other agreement with the rose than that of color, or at the word "straight" of any other property of a stretched cord than the sameness of direction. Just so, too, numbers, originally the names of the fingers of the hands and feet, from being used as arrangement-signs for all kinds of objects, were lifted to the plane of abstract concepts. A verbal report (communication) of a fact that uses only these purely abstract implements, we shall call in this essay a *direct description*.

The direct description of a fact of considerable extent is an irksome task, even where the requisite notions are already completely developed. What a simplification it involves if we can say, the fact *A* now considered comports itself, not in *one*, but in *many* or in *all* its features, like an old and well-known fact *B*. The moon comports itself like a heavy body does with respect to the earth; light like a wave-motion or an electric vibration; a magnet, as if it were laden with gravitating fluids, and so on. We call such a description, in which we appeal, as it were, to a description already and elsewhere formulated, or perhaps still to be precisely formulated, an *indirect description*. We are at liberty to supplement this description, gradually, by direct description, to correct it, or to replace it altogether. We see, thus, without difficulty, that what is called a *theory* or a *theoretical idea*, falls under the category of what is here termed indirect description.

* * *

What, now, is a theoretical idea? Whence do we get it? What does it accomplish for us? Why does it occupy a higher place in our judgment than the mere holding fast to a fact or an observation? Here, too, memory and comparison alone are in play. But instead of *a single* feature of resemblance culled from memory, in this case *a great system* of resemblances confronts us, a well-known physiognomy, by means of which the new fact is immediately transformed into an old acquaintance. Besides, it is in the power of the idea to offer us more than we actually see in the new fact, at the first moment; it can extend the fact, and enrich it with features which we are at first induced to *seek* from such suggestions, and which are often actually found. It is this *rapidity* in extending knowledge that gives to theory a preference over simple observation. But that preference is wholly *quantitative*. Qualitatively, and in real essential points, theory differs from observation neither in the mode of its origin nor in its last results.

The adoption of a theory, however, always involves a danger. For a theory puts in the place of a fact *A* in thought, always a *different*, but simpler and more familiar fact *B*, which in *some* relations can mentally represent *A*, but for the very reason that it is different, in other relations cannot represent it. If now, as may readily happen, sufficient care is not exercised, the most fruitful theory may, in special circumstances, become an outright obstacle to inquiry. Thus, the emission-theory of light, in accustoming the physicist to think of the projectile path of the "light-particles"

as an undifferentiated straight-line, demonstrably impeded the discovery of the periodicity of light. By putting in the place of light the more familiar phenomena of sound, Huygens renders light in many of its features a familiar event, but with respect to polarisation, which lacks the longitudinal waves with which alone he was acquainted, it had for him a doubly strange aspect. He is unable thus to grasp in abstract thought the fact of polarisation, which is before his eyes, whilst Newton, merely by adapting to the observation his thoughts, and putting this question, "*An non radiorum luminis diversa sunt latera?*" abstractly grasped polarisation, that is, directly described it, a century before Malus. On the other hand, if the agreement of the fact with the idea theoretically representing it, extends further than its inventor originally anticipated, then we may be led by it to unexpected discoveries, of which conical refraction, circular polarisation by total reflexion, Hertz's waves offer ready examples, in contrast to the illustrations given above.

Our insight into the conditions indicated will be improved, perhaps, by contemplating the development of some theory or other more in detail. Let us consider a magnetised bar of steel by the side of a second unmagnetised bar, in all other respects the same. The second bar gives no indication of the presence of iron-filings; the first attracts them. Also, when the iron-filings are absent, we must think of the magnetised bar as in a different condition from that of the unmagnetised. For, that the mere presence of the iron-filings does not induce the phenomenon of attraction is proved by the second unmagnetised bar. The ingenuous man, who finds in his will, as his most familiar source of power, the best facilities for comparison, conceives a species of *spirit* in the magnet. The behavior of a warm body or of an *electrified* body suggests similar ideas. This is the point of view of the oldest theory, *fetishism*, which the inquirers of the early Middle Ages had not yet overcome, and which in its last vestiges, in the conception of forces, still flourishes in modern physics. We see, thus, the *dramatic* element need not be absent in a scientific description, any more than in a thrilling novel.

If, on subsequent examination, it be observed that a cold body, in contact with a hot body, warms itself, so to speak, *at the expense* of the hot body; further, that when the substances are the same, the cold body, which, let us say, has twice the mass of the other, gains only half the number of degrees of temperature that the other loses, a wholly new impression arises. The demoniac character of the event vanishes, for the supposed spirit acts not by caprice, but according to fixed laws. In its place, however, *instinctively* the notion of a *substance* is substituted, part of which flows over from the one body to the other, but the total amount of which, representable by the sum of the products of the masses into the respective changes of temperature, remains constant. Black was the first to be *powerfully* struck with this resemblance of thermal processes to the motion of a substance, and under its guidance discovered the specific heat, the heat of fusion, and the heat of vaporisation of bodies. Gaining strength and fixity, however, from these successes, this notion of substance subsequently stood in the way of scientific advancement. It blinded the eyes of the successors of Black, and prevented them from seeing the manifest fact, which every savage knows, that heat is *produced* by friction. Fruitful as that notion was for Black, helpful as it still is to the learner to-day in Black's special field, permanent and universal validity as a *theory* it could never acquire. But what is essential, conceptually, in it, viz., the constancy of the product-sum above mentioned, retains its value and may be regarded as a *direct description* of Black's facts.

It stands to reason that those theories which push themselves forward unsought, instinctively, and wholly of their own accord, should have the greatest power, should carry our thoughts most with them, and exhibit the staunchest powers of self-preservation. On the other hand, it may also be observed that when critically scrutinised such theories are extremely apt to lose their cogency. We are constantly busied with "substance," its modes of action have stamped themselves indelibly upon our thoughts, our vividest and clearest reminiscences are associated with it. It should cause us no surprise, therefore, that Robert Mayer and Joule, who gave the final blow to Black's substantial conception of heat, should have re-introduced the same notion of substance in a more abstract and modified form and as applying to a much more extensive field.

Here, too, the psychological circumstances which impart to the new conception its power, lie clearly before us. By the unusual redness of the venous blood in tropical climates Mayer's attention is directed to the lessened expenditure of internal heat and to the proportionately lessened *consumption of material* by the human body in those climates. But as every effort of the human organism, including its mechanical work, is connected with the consumption of material, and as work by friction can engender heat, therefore heat and work appear in kind equivalent, and between them a proportional relation must subsist. Not *every* qantitative relation, but the appropriately calculated *sum* of the two, as connected with a proportionate consumption of material, appears *substantial*.

By exactly similar considerations, relative to the economy of the galvanic element, Joule arrived at his view; he found experimentally that the sum of the

heat evolved in the circuit, of the heat consumed in the combustion of the gas developed, of the electro-magnetic work of the current, properly calculated,—in short, the sum of all the effects of the battery,—is connected with a proportionate consumption of zinc. Accordingly, this sum itself has a substantial character.

Mayer was so absorbed with the view attained, that the indestructibility of *force*, in our phraseology *work*, appeared to him *a priori* evident. "The creation and annihilation of a force," he says, "lies without the province of human thought and power." Joule expressed himself to a similar effect: "It is manifestly absurd to suppose that the powers with which God has endowed matter can be destroyed." Strange to say, on the basis of such utterances, not Joule, but Mayer, was stamped as a metaphysician. We may be sure, however, that both men were merely giving expression, and that half-unconsciously, to a powerful *formal* need of the new simple view, and that both would have been extremely surprised if it had been proposed to them that their principle should be submitted to a philosophical congress or ecclesiastical synod for a decision upon its validity. But with all agreements, the attitude of these two men, in other respects, was totally different. Whilst Mayer represented this *formal* need with all the stupendous instinctive force of genius, we might say almost with the ardor of fanaticism, yet was withal not wanting in the conceptive ability to compute, prior to all other inquirers, the mechanical equivalent of heat from old physical constants long known and at the disposal of all, and so to set up for the new doctrine a programme embracing all physics and physiology; Joule, on the other hand, applied himself to the exact verification of the doctrine by beautifully conceived and masterfully executed experiments, extending over all departments of physics. Soon Helmholtz too attacked the problem, in a totally independent and characteristic manner. After the professional virtuosity with which this physicist grasped and disposed of all the points unsettled by Mayer's programme and more besides, what especially strikes us is the consummate critical lucidity of this young man of twenty-six years. In his exposition is wanting that vehemence and impetuosity which marked Mayer's. The principle of the conservation of energy is no self-evident or *a priori* proposition for him. What follows, on the assumption that that proposition obtains? In this hypothetical form, he subjugates his matter.

I must confess, I have always marvelled at the æsthetic and ethical taste of many of our contemporaries who have managed to fabricate out of this relation of things, odious national and personal questions, instead of praising the good fortune that made *several* such men work together and of rejoicing at the instructive diversity and idiosyncrasies of great minds so fraught with rich consequences for us.

We know that still another theoretical conception played a part in the development of the principle of energy, which Mayer held aloof from, namely, the conception that heat, as also the other physical processes, are due to motion. But once the principle of energy has been reached, these auxiliary and transitional theories discharge no essential function, and we may regard the principle, like that which Black gave, as a contribution to the *direct description* of a widely extended domain of facts.

It would appear from such considerations not only advisable, but even necessary, with all due recognition of the helpfulness of theoretic ideas in research, yet gradually, as the new facts grow familiar, to substitute for indirect description *direct* description, which contains nothing that is unessential and restricts itself absolutely to the abstract apprehension of facts. We might almost say, that the descriptive sciences, so called with a tincture of condescension, have, in respect of scientific character, outstripped the physical expositions lately in vogue. Of course, a virtue has been made of necessity here.

[TO BE CONCLUDED.]

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THE PILGRIMAGE OF ANTHONY FROUDE.

BY MONCURE D. CONWAY.

II.

In one of Froude's works (*A Fortnight in Kerry*) Froude alludes to my visit to him in that remote corner of Ireland. "Fresh from Gravelotte," as he says, and haunted still by that field where I had to pick my way lest I should tread upon the mangled bodies of men, that week was passed as if in some happy Avalon. The horrors faded as if into a faintly remembered nightmare. My host had taken for the summer the beautiful old residence of Lord Lansdowne near Kenmare, a region rich in legend and antiquities. We visited prehistoric mounds and stones, rehearsed ancient Celtic lore, listened to the "keening" of peasants at a funeral, visited a sacred pool whose islet is said to float from one side to another, and saw the pilgrims waiting to be healed when their Bethesda should be so supernaturally stirred. In some of Froude's writings there are indications of something like a personal resentment against Catholicism, which had devoured his beloved Newman, but in that Irish Arcadia, where the old church was in its historical place, and still represented all that was poetic in the folk, nothing could exceed his tenderness towards the humble believers around him. And he was everywhere met, by priest and people, with a friendliness which responded to his neighborly kindness. (Less than two years later, when he lectured in America, the Irish here were raging around him as an enemy of Ireland!) Mr. Froude was indeed one of the most charming of men, personally; in presence, handsome and dignified, he was also gracious, cordial, always more thoughtful of others than himself. I worked for him many years, when he edited Fraser's Magazine, and although our intimacy was terminated by complications connected with his publication of the Carlyle papers, the previous friendship of eighteen years enabled me to detach the real man from the great mistake of his life. Nothing could have persuaded him to print the items in Carlyle's papers which so involved and troubled living persons had he realised the situation, and he was too much hurried by publishers eager to meet a hungry public to digest the materials thoroughly. He suffered grievously from all this, and was prematurely aged. When I saw him at the grave of Tennyson in Westminster Abbey (he was one of the pall-bearers) he appeared to me but the wreck of his former self, though he was not yet seventy. His lectures at Oxford were, however, making a fine impression, and those on "Erasmus," just published, show that he had lost no fibre of intellectual force.

But to return. While rambling and yachting with Froude in Ireland I submitted to him a scheme I had formed for a reprint of the religious romances which grew directly or indirectly out of what is historically known as the "Oxford Movement." The series was to begin with Newman's "Callista; a Tale of the Third Century," and perhaps include Cardinal Wiseman's "Fabiola." More important revivals would be John Sterling's "Arthur Coningsby," and his other novel, "The Onyx Ring," in which Goethe and Carlyle figure as characters. "Oakfield," which Mrs. Lowell quoted much in her "Seed-Grain," Maurice's "Eustace Conway," Charles Kingsley's "Yeast," Smith's "Thorndale," might be comprised. But the most important of the series would be Froude's "Shadows of the Clouds," and "The Nemesis of Faith." Froude entered into my plan warmly, and would have assisted me in it, but it failed because no publisher could be found to take any interest in it. Ten years later, when Froude's "Bunyan" appeared, in the "English Men of Letters" series, I could not help reflecting on the spiritual torpor of a world which is still more interested in the Pilgrim's Progress of an extinct dogmatic era, than in the progress of the living pilgrims of the living age, definitely traceable in the works just named.

Shadows of the Clouds (by "Zota") appeared in 1847, Froude being in his twenty-ninth year, and for more than five years a Fellow of Exeter College, Oxford. This work, long out of print and found in few libraries, were it now republished, would surely find many eager readers for its literary excellence alone. Indeed it is little occupied with theological matters, though it incidentally deals with moral and philosophical problems. The book contains two tales,—"The Spirit's Trials" and "The Lieutenant's Daughter." In the first of these a graphic description is given of the trials of a boy at an English public school. "For one year, at

least, to all boys, and to some for every year, the life was as hard, and the treatment as barbarous, as that of the negroes in Virginia. What it may be now, I do not know: I am speaking of what it was fifteen years ago." The school portrayed was the Westminster School, of sixty years ago, and the unhappy effects of its whole system on a boy, "Edward Fowler," are traced with consummate skill. The author affirms that every boy will presently deserve the treatment he receives. Edward sinks in character, and is brought into disgrace with his father and family. He recovers heart under a private tutor, and enters the University. But past dissipations have to be paid for: the list of debts cannot be suppressed, and the youth's father turns against him. He had become betrothed to the daughter of a sadly inflexible clergyman,—a vigorously drawn character,—who will not have a son-in-law with escapades in his past. The engagement broken, the youth is precipitated into fresh dissipations. He rises again when he "begins to trust himself and not circumstances."

This story caused considerable flutter, both at Westminster School and at Oxford. The revelations made concerning both were disturbing, all the more because the young author regarded things from a severe moral standpoint. He is not indulgent to vice, but remorseless in tracking it to its sources in bad discipline and evil methods of education. The Masters winced, and though they may have kept a sharper eye on the morals of their colleges, they kept a sharper one on Froude, who was soon discovered under his pseudonym, "Zota." The theologians were induced to do the like by the delicate, if not dangerous, problem raised by the second story,—"The Lieutenant's Daughter." This is introduced in a dream, which in realistic impressiveness anticipates Du Maurier's *Peter Ibbetson*. The tale has two endings: in one the daughter becomes a virtuous and happy wife, in the other the same woman becomes a fallen and miserable outcast. These diverse events result from a few years more or less duration of her father's life. It is a tale of the influence of circumstance on character; partly also an illustration of the fact that moral failure is largely due to ignorance and inexperience of the world. Satan and hereditary depravity had already ceased to be a part of Froude's ethical system; nor was the blood of Jesus in his category of cleansing forces. At this time Froude was a devout reader of Emerson and Carlyle, but their influence is hardly visible in his early writings, which are remarkably original. It became evident that a thinker was let loose in Oxford. The atmosphere of the University was already sultry with suspicion, when, in the following year, appeared *The Nemesis of Faith*. But I must reserve further comment on this for a final article.

ON THE PRINCIPLE OF COMPARISON IN PHYSICS.[1]

BY PROF. ERNST MACH.

[CONCLUDED.]

We must admit, that it is not in our power to describe directly every fact, on the moment. Indeed, we should succumb in utter despair if the whole wealth of facts which we come step by step to know, were presented to us all at once. Happily, only detached and unusual features first strike us, and such we bring nearer to ourselves by *comparison* with every-day events. Here the notions of the common speech are first developed. The comparisons then grow more manifold and numerous, the fields of facts compared more extensive, the concepts that make direct description possible, proportionately more general and more abstract.

First we become familiar with the motion of freely falling bodies. The concepts of force, mass, and work are then carried over, with appropriate modifications, to the phenomena of electricity and magnetism. A stream of water is said to have suggested to Fourier the first distinct picture of currents of heat. A special case of vibrations of strings investigated by Taylor, cleared up for him a special case of the conduction of heat. Much in the same way that Daniel Bernoulli and Euler constructed the most diverse forms of vibrations of strings from Taylor's cases, so Fourier constructs out of simple cases of conduction the most multifarious motions of heat; and that method has extended itself over the whole of physics. Ohm forms his conception of the electric current in imitation of Fourier's. The latter, also, adopts Fick's theory of diffusion. In an analogous manner a conception of the magnetic current is developed. All sorts of stationary currents are thus made to exhibit common features, and even the condition of complete equilibrium in an extended medium shares these features with the dynamical condition of equilibrium of a stationary current. Things as remote as the magnetic lines of force of an electric current and the stream-lines of a frictionless liquid vortex enter in this way into a peculiar relationship of similarity. The concept of potential, originally enunciated for a restricted province, acquires a wide-reaching applicability. Things as dissimilar as pressure, temperature, and electromotive force, now show points of agreement in relation to ideas derived by definite methods from that concept: viz., fall of pressure, fall of temperature, fall of potential, as also with the further notions of liquid, thermal, and electric strength of current. That relationship between systems of ideas in which the dissimilarity of every two homologous concepts, as well as the agreement in the logical relations

[1]An address delivered before the General Session of the German Association of Naturalists and Physicians, at Vienna, Sept. 24, 1894.

of every two homologous pairs of concepts, is clearly brought to light, is called an *analogy*. It is an effective means of mastering heterogeneous fields of facts in unitary comprehension. The path is plainly shown in which *a universal physical phenomenology* embracing all domains, will be developed.

In the process described we attain for the first time to what is indispensable in the direct description of broad fields of fact—the wide-reaching *abstract concept*. And now I must put a question smacking of the schoolmaster, but unavoidable: What is a concept? Is it a hazy representation, admitting withal of mental visualisation? No. Mental visualisation accompanies it only in the simplest cases, and then merely as an adjunct. Think, for example, of the "coefficient of self-induction," and seek for its visualised mental image. Or is, perhaps, the concept a mere word? The adoption of this forlorn idea, which has been actually proposed not long since in reputed quarters, would only throw us back a thousand years into the deepest scholasticism. We must therefore reject it.

The solution is not far to seek. We must not think that sensation is a purely passive process. The lowest organisms respond to it with a simple reflex motion, by engulfing the prey which approaches them. In higher organisms the centripetal stimulus encounters in the nervous system obstacles and aids which modify the centrifugal process. In still higher organisms, where prey is pursued and examined, the process in question may go through extensive paths of circular motions before it comes to rest. Our own life, too, is enacted in such processes; all that we call science may be regarded as parts, or middle terms, of such activity.

It will not surprise us now if I say: the definition of a concept, and, when it is very familiar, even its name, is an *impulse* to some accurately determined, often complicated, critical, comparative, or constructive *activity*, the usually sense-perceptive result of which is a term or member of the concept's scope. It matters not whether the concept draws the attention only to one certain sense (as sight) or to a phase of a sense (as color, form), or is the starting point of a complicated action; nor whether the activity in question (chemical, anatomical, and mathematical operations) is muscular or technical, or performed wholly in the imagination, or only intimated. The concept is to the physicist what a musical note is to a piano-player. A trained physicist or mathematician reads a memoir like a musician reads a score. But just as the piano-player must first learn to move his fingers singly and collectively, before he can follow his notes without effort, so the physicist or mathematician must go through a long apprenticeship before he gains control, so to speak, of the manifold delicate innervations of his muscles and imagination. Think of how frequently the beginner in physics or mathematics performs more, or less, than is required, or of how frequently he conceives things differently from what they are! But if, after having had sufficient discipline, he lights upon the phrase "coefficient of self-induction," he knows immediately what that term requires of him. Long and thoroughly practised actions, which have their origin in the necessity of comparing and representing facts by other facts, are thus the very kernel of concepts. In fact, positive and philosophical philology both claim to have established that all roots represent concepts and stood originally for muscular activities alone. The slow assent of physicists to Kirchhoff's dictum now becomes intelligible. They best could feel the vast amount of individual labor, theory, and skill required before the ideal of direct description could be realised.

* * *

Suppose, now, the ideal of a given province of facts is reached. Does description accomplish all that the inquirer can ask? In my opinion, it does. Description is a building up of facts in thought, and this building up is, in the experimental sciences, often the condition of true representation. For the physicist, to take a special case, the metrical units are the building-stones, the concepts the directions for building, and the facts the result of the building. Our mental imagery is almost a complete substitute for the fact, and by means of it we can ascertain all the fact's properties. We do not know that worst which we ourselves have made.

People require of science that it should *prophesy*, and Hertz uses that expression in his posthumous *Mechanics*. But, natural as it is, the expression is too narrow. The geologist and the palæontologist, at times the astronomer, and always the historian and the philologist, prophesy, so to speak, *backwards*. The descriptive sciences, like geometry and mathematics, prophesy neither forward or backwards, but seek from given conditions the conditioned. Let us say rather: *Science completes in thought facts that are only partly given.* This is rendered possible by description, for description presupposes the interdependence of the descriptive elements: otherwise nothing would be described.

It is said, description leaves the sense of causality unsatisfied. In fact, many imagine they understand motions better when they picture to themselves the pulling forces; and yet the *accelerations*, the facts, accomplish more, without superfluous additions. I hope that the science of the future will discard the idea of cause and effect, as being formally obscure; and in my feeling that these ideas contain a strong tincture of fetishism, I am certainly not alone. The more proper course is, *to regard the abstract determina-*

tive elements of a fact as interdependent, in a purely logical way, as the mathematician or geometer does. True, by comparison with the will, forces are brought nearer to our feeling; but it may be that ultimately the will itself will be made clearer by comparison with the accelerations of masses.

If we are asked, candidly, when is a fact *clear* to us, we must say "when we can reproduce it by very *simple* and very familiar intellectual operations, such as the construction of accelerations, or the geometrical summations of accelerations, and so forth." The requirement of *simplicity* is of course to the expert a different matter from what it is to the novice. For the first, description by a system of differential equations is sufficient; for the second, a gradual construction out of elementary laws is requisite. The first discerns at once the connexion of the two expositions. Of course, it is not disputed that the *artistic* value of materially equivalent descriptions may not be different.

Most difficult is it to persuade strangers that the great universal laws of physics, such as apply indiscriminately to material, electrical, magnetic, and other systems, are not essentially different from descriptions. As compared with many sciences, physics occupies in this respect a position of vantage that is easily explained. Take, for example, anatomy. As the anatomist in his quest for agreements and differences in animals ascends to ever higher and higher *classifications*, the individual facts that represent the ultimate terms of the system, are still so different that they must be *singly* noted. Think, for example, of the common marks of the Vertebrates, of the class-characters of Mammals and Birds on the one hand and of Fishes on the other, of the double circulation of the blood on the one hand and of the single on the other. In the end, always *isolated* facts remain, which show only a *slight* likeness to one another.

A science still more closely allied to physics, chemistry, is often in the same strait. The abrupt change of the qualitative properties, in all likelihood conditioned by the slight stability of the intermediate states, the remote resemblance of the co-ordinated facts of chemistry render the treatment of its data difficult. Pairs of bodies of different qualitative properties unite in different mass-ratios; but no connexion between the first and the last is to be noted, at first.

Physics, on the other hand, reveals to us wide domains of *qualitatively homogeneous* facts, differing from one another only in the number of equal parts into which their representative marks are divisible, that is, differing only *quantitatively*. Even where we have to deal with qualities (colors and sounds), quantitative characters of those qualities are at our disposal. Here the classification is so simple a task that it rarely impresses us as such, whilst in infinitely fine gradations, in a *continuum of facts*, our number-system is ready beforehand to follow as far as we wish to go. The co-ordinated facts are here extremely similar and very closely affined, as are also their descriptions which consist in the determination of the numerical measures of one given set of characters from those of a different set by means of familiar mathematical operations—methods of derivation. Thus, the common characteristics of all descriptions can be found here; and with them a succinct, comprehensive description, or a rule for the construction of all single descriptions, is assigned,—and this we call *law*. Well-known examples are the formulæ for freely falling bodies, for projectiles, for central motion, and so forth. If physics apparently accomplishes more by its methods than other sciences, we must remember that in a sense it has presented to it much simpler problems.

The remaining sciences, whose facts also present a physical side, need not be envious of physics for this superiority; for all its acquisitions ultimately redound to their benefit as well. But also in other ways this mutual help shall and must change. Chemistry has advanced very far in making the methods of physics her own. Apart from older attempts, the periodical series of Meyer and Mendelejeff are a brilliant and adequate means of producing an easily surveyed system of facts, which by gradually becoming complete, will take the place almost of a continuum of facts. Further, by the study of solutions, of dissociation, in fact generally of phenomena which present a continuum of cases, the methods of thermodynamics have found entrance into chemistry. Similarly we may hope that, at some future day, a mathematician, letting the fact-continuum of embryology play before his mind, which the palæontologists of the future will supposedly have enriched with more intermediate and derivative forms between Saurian and Bird than the isolated Pterodactyl, Archaeopteryx, Ichthyornis, and so forth, which we now have—that such a mathematician shall transform, by the variation of a few parameters, as in a dissolving view, one form into another, just as we transform one conic section into another.

Reverting now to Kirchhoff's words, we can come to some agreement regarding their import. Nothing can be built without building-stones, mortar, scaffolding, and a builder's skill. Yet certainly the wish is well founded, which will show the complete structure to posterity in its finished form, bereft of unsightly scaffolding. It is the pure logical and æsthetic sense of the mathematician that speaks out of Kirchhoff's words. Modern expositions of physics aspire after his ideal; that, too, is intelligible. But it would be a poor didactic trick, for one whose business it was to train architects, to say: "Here is a stately edifice; if thou wouldst really build, go thou and do likewise.

The barriers between the special sciences, which make division of work and concentration possible, but which after all affect us as cold and conventional restrictions, will gradually disappear. Bridge upon bridge is thrown over the gaps. Contents and methods, even of the remotest branches, are compared. When the Congress of Natural Scientists shall meet a hundred years hence, we may expect that they will represent a unity in a higher sense than is possible to-day, not in sentiment and aim alone, but in method also. In the meantime, this great change will be helped by our keeping constantly before our minds the fact of the intrinsic relationship of all research, which Kirchhoff characterised with such classical simplicity.

THE PHILOSOPHY OF A HUMORIST.

[CONTINUED.]

II. EXISTENCES THAT ARE IN PART.

Having accompanied Wilhelm Busch's sagacious dreamer through the land of pure forms, let us follow him now into a more real realm ; but here still he finds existence in parts only.

Edward first visits the community of heads. These live in nests in a high mediæval place, having behind their ears wings which are an appropriate adaptation of their neck muscles. Some sit around marshes ; they are the water-heads. They blink drowsily with their eyes and let the sun shine into their mouths. Then, there are the head-strong who possess the vanity of their own opinion in spite of argument, wrangling and quarrelling in the air. Almost every one of them had bruises, black and blue. They live on wind and earn their living as stump-orators and singers in dime-museums.

Lower down, on a mountain-range, hands were living as scribblers, scrubbers, stocking-knitters, stringed-instrument musicians, and other trades. The feet are at home in the valley.

Leaving the land of separate limbs our tramping dreamer visits a village and describes its still life. There were three merry flies swarming over a pond, three joyous little fish caught them. A moment later three ducks came along ; each duck snatched a fish and swallowed it. The farmer's good-natured wife appeared in the door of the house and enticed the three ducks with a few crumbs of bread into the kitchen. Then she seized them and cut off their throats, but being hasty she cut her finger at the same time. The hatchet was rusty and the finger began to swell. There were symptoms of blood poisoning ; the doctor came. He understood the case. He cut off her finger, but it wouldn't do ; he cut off her arm, but it wouldn't do ; he cut off her head, but it wouldn't do ; he cut off her waist, but it wouldn't do; he cut off her knees, but it wouldn't do ; and when he came to her sensitive corns a shriek was heard and she was dead. The farmer would not be comforted for the doctor's fee was $53.75. The doctor put the honorarium into his pocket-book and the farmer sighed. The doctor put the pocket-book into his pocket and the farmer fainted upon a chair, staring into emptiness. The doctor was a man of the world. Slowly he rode away, nor began he to trot until he was out of sight. He was wholly unaware that his pocket had a hole in it. The disconsolate widower went to the pig-pen and looked at the pigs. There were thirteen of them, each worth $11.25. His tears began to dry and when he came out again he had become a new man.

Edward now left the farm house and went to one of the neighbors. It was the uncle of the farmer. Having just returned with an unsteady walk from a long sitting at the inn he entered the room where his numerous family expected him with dread. The old man threw his hat upon the ground and shouted "He who takes that hat up will be thrashed ; he who lets it lie, will be thrashed, too." He was a very reliable man and he kept his word.

Having witnessed this sad spectacle, the pensive traveller sighs and says : "Alas ! my dear reader, how often does fate throw before us his tragic hat, and whatever we do we shall have trouble."

Continuing the story of his travel, our dreamer finds himself confronted by a philosopher whose greatness consists in creating problems where there are none. Edward says: "I went to the neighboring farm. An old thinking man stood in the cow-stable which he had just cleaned, and he closed the barn-shutters. 'Strange,' he said, resting his chin upon the dung-fork. 'Strange, very strange ! Indeed, extraordinary! If I close the barn-shutters it grows dark !" And so he stood for a long time and thought and thought. As if there were not worries enough in the world without that ! And it was very dark in his mind and also in the cow-stable.

In another farm-house our all-observing dreamer finds the delicate little daughter of the farmer sitting at the piano. There is a knock at the door. "Is your father at home?" asks the man who buys sheep. "No, sir," she replied, in a lady-like way, "papa hauls dung." What a pleasant instance of increasing culture, which still has something of the strong odor of the soil from which it grew !

We pass over a number of pictures of Edward's dream, which show us an incendiary firing his barn ; several topers, one of whom pays the bill with counterfeit money; a broom-maker, who finds the doctor's pocket-book, and, having hidden it in his boot, meets the doctor, who returns on his horse in full speed. "Did you find something?" asked the doctor. "No, sir," the broom-maker says, with composure, and while

the doctor hastens on, thinks to himself, "that will be a lesson to him." In this way a wise man had given to an inexperienced fellow a valuable lesson without bringing him into the painful situation of expressing his thanks—a good deed, which is the more remarkable as he never bragged of it.

Wherever Edward goes he finds the world interesting, not less so than the cultured farmer who met him on the way, and had just been looking at his potatoes, which were doing splendidly. The sun shone through his transparent ears, and he was happy, shouting in ecstasy: "O, how beautiful is the world, how beautiful!"

After some other excursions, Edward visited the temple of science. There he saw the high-minded investigators sitting among their microscopes, retorts, and guinea-pigs. Considering the use, the enhancement, and all the other advantages which mankind owes them, and also their own well-deserved pride, he left their sanctum with suppressed reverence. But he overheard a critic—for flies are everywhere—say to another critic who passed him: "There are numbers in their heads, and bacilli in their hearts. They grind everything to powder—God, spirit, and Shakespeare, and then the broom-guard, those sages who sweep together the offal from the back-doors of centuries."—Here the critic interrupted himself and exclaimed: "Do you see that milk-cart? The billy-goat that draws it looks as proud as if he had produced the milk himself."

In the art-museum the old artists had been newly varnished. Among the new artists were the naturalists, one of whom protested that he preferred one natural peasant-girl standing knee-deep in the mud to eleven thousand embalmed princesses dancing upon wires. "Nature," he began to sing, "nothing but naturrrre!" The other naturalists fell in and Edward joined the chorus. "Naturrre," he sang "Naturrre?"

Here the dreamer was poked again by his wife who said: "Dear me, Edward! How terribly you snore!"

Edward did not allow his dream to be disturbed. He saw at the art-museum an old ruffian who looked at the pictures and was morally disgusted with them. His name is The-man-with-the-dirty-spectacles, for the dirt that he finds he brings with him.

In the world of politics Edward observed that Bismarck had just left the driver's box and resigned the reins of the world. Surely that would create a commotion! But no, the world is like a pot of porridge. If you take the spoon out, and were it the largest, the whole business will close up again, and be as if nothing had happened.

While still moved in thought Edward grew desirous, after having seen so many marvellous and glorious things, to see once a really good man. He said to himself: "I am not especially anxious to see him, but it is only for the sake of completeness."

Now our dreamer was told that there was a kind philanthropist whose possessions weighed upon him like a burden, and distributing them was his greatest pleasure. Edward went to see him.

The philanthropist had just gathered up from the street five tramps. "Brethren," he said, mildly, "make yourselves at home. We will all be equal." The tramps were satisfied. They ate together, they drank together, they smoked together, and they decided that on the next morning they would shine their boots together. The case was so remarkable that Edward stayed until the next morning. On the next morning the six gentlemen met at the breakfast-table, and when the philanthropist saw his five brethren decently dressed in good clothes like himself a tear was in his eye, and, shaking hands with them, he expressed his joy that every one was now satisfied. Then one of them, formerly a mason, cleared his throat and said: "Well, that is so; however, as you, my brother, have had so much more spare time for being satisfied than we, it would be but reasonable that we should now have a correspondingly better time than you." The philanthropist was a just man, and another tear came to his eye. He nodded his consent. So everybody took his mocha, except the philanthropist; everybody took a cognac, except the philanthropist; everybody smoked his Havana, except the philanthropist; and after breakfast no one shined the shoes except the philanthropist. When he now saw his five brethren better dressed than himself, a third tear stood in his eye, and, embracing them, he expressed his joy that at last everybody was satisfied. But the mason again cleared his throat and said: That may be so, but he should now step under the window, for they wanted to spit on his head and see whether their brother was still proud. The philanthropist had a fourth tear in his eye, and he declined. When his five brethren observed that he objected, they seized him by the collar of his coat and made him "walk proudly" as they called it. They carried him down into the hall, whipped him one, two, three times, still keeping him suspended, and at three threw him out of the door of his house into the yard where he frightened a cow; and while the poor fellow was lying in the mud, the four tears which had gathered in his eyes broke out at once and he began to swear. What a disappointment to Edward who now clearly recognised that at bottom the philanthropist was no really good man. He who wants to follow equality through thick and thin must have high boots.

But Edward after all did not in his dream give up finding a good man. He followed a collector who had in his hands a list of names, into a stately residence. The owner gave him a quarter for foreign missions

and a dime for home missions, and having done so, when the collector had left, fell into a dreaming, saying, "I am too good, I am much too good." So much was he overcome with the almost punishable kindness of his heart.

Now Edward was satisfied. He had seen a good man, a man who was even more than good.

Having taken a trip into vacuity in order to see whether the world had an end or not, and having returned along the heavenly axis at the polar star, the restless wanderer returned to our little earth and came to a place where everybody was in a state of indolent happiness. The people had invented great burning-glasses to collect sun-heat sufficient for all the machinery, stoves, lamps, and kitchens that were needed in the country, and in addition enough power for purposes of amusement and everybody was taken care of by the national administration. There were no thieves, for there was no need of stealing. And if somebody on account of weakness of mind took some such thing as a cigar from his neighbor he was treated in an asylum and cured by kindness and benevolent treatment. All troubles were done away with, death alone could not be banished. "That is all very fine," thought Edward, "but are not the stupid people envious when comparing themselves with clever folks, and the ugly with the beautiful?"—"Well," replied one of the people, "formerly it was bad enough and we had much trouble. But now all that is past since the competition gland has been discovered." Then he described that this injurious organ has its seat deep in the brain behind the ear, and its extirpation is obligatory. The success justifies the method. There was not envy, no pride, no ambition; and the good Lord and the ten commandments had become redundant. It was only a pity that all laughter had ceased. True, there were laughing-clubs, but the laughter which they practised was wooden and hypocritical, it was not natural. The genuine joy in manifesting our abilities which make us strong to endure competition could not obtain under these well-regulated conditions. There was a certain soft monotony which it appears even the inhabitants of this country could appreciate only with difficulty, for on almost every tree of their fine parks some one hung who had grown sick of life. The people, to be sure walked through the parks and did not mind, but Edward could not stand it. He left and went to a philosopher.

In the next episode of Edward's dream-experiences Wilhelm Busch ridicules the mechanical world-conception which reduces all processes of the world to matter and motion, forgetful of the fact that in sentiments, thoughts, and in ideal aspirations the material and mechanical aspect of an event is its most unessential feature. Ideas cannot be explained by, or classified under, the categories of matter and motion. And Busch is right, for in the spiritual world another and more subtle element enters, which, although it appears to a materialistic conception as non-existent, is after all the most important reality of life.

Edward entered the philosopher's study and was courteously received. Three parrots were swinging on perches. The philosopher wore a red cap with a green feather, a gown of mole-skin, pants of stag leather, and slippers of crocodile skin. He had several remarkable curiosities in his collection which he was kind enough to show. The three parrots swung themselves on perches in his study and repeated every word he said. First, the philosopher began, look at this automatic piece of art. It was a crane standing in a dish full of water containing an eel. The philosopher wound the mechanism and the crane bowed down, caught the eel, lifted him up and swallowed him. While still standing in thought as if satisfied, the eel glided out at the next moment from behind, and again with unfailing certainty the long-billed bird caught him, swallowed him, and waited for further consequences. The eel returned to the water by the same way to be devoured again in the same fashion, and thus the circle continued. "This," said the master, "is the circuition of things."

The philosopher now took an insignificant looking utensil from his cabinet. It was a blowing-mill. He dusted it and said with importance: "This, my friend, is the thing-in-itself which before me no one has understood." He pressed a button and the mill began to fan, producing upon Edward a pleasant feeling as if some one was tickling him behind his ears. The philosopher pressed the button a second time and a palatable dinner appeared. He pressed a third time and an agreeable odor arose. He pressed a fourth time and fine music was heard; a fifth time and fire-works began to play. "Thus," the polite host explained, "everything that happens between us and the things is nothing but motion, now quicker, now slower, now in a medium of ether, now of air which may be thicker or thinner."

"But how is it with thoughts?" Edward asked the master. "It is the same with thoughts," replied he. "You will see at once." He put his blowing-mill away and handed me a wind-mill. It was small and built after the pattern of those little instruments which are fastened to cherry-trees in order to keep the sparrows away, only smaller, and with wings of paper. Placing this mill before me he said: "Well, my friend, now think deftly." Edward began to think and thought as much as he could, and the more sturdily he thought the brisker the paper wings of the mill turned round and they clattered so that even an old experienced sparrow would not have dared to approach. "The

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more wind the more noise," said the sage explainingly.

"But the joys and the pains of our heart," the inquisitive visitor retorted, "are they nothing but motion also?" "Certainly," the wise man said, "only they turn in the screw fashion." Then he took from his shelf a dainty holder in which horizontally a corkscrew lay, that could be turned by a crank. "Well?" queried Edward, expectantly. "Sit down here," said the philosopher, considerately; "I notice your constitution is a little abnormal. Take a seat here, this is a chair of higher sensitiveness."

It was a softly upholstered easy-chair, and the master approached his visitor with his screw, turning it forward. What a painful sentiment pierced his innermost being. He felt like screaming aloud. It was as if his old great-aunt had died. "Pain is positive," said the master, but now we will turn the screw backwards." The pain disappeared, and an unexpected happiness streamed through Edward's whole system. It was as if the good deceased aunt had left him a fortune of half a million. "Joy is negative," explained the philosopher, and returned the soul-screw to its former place.

Not to exhaust the patience of his host, Edward thought it time to take his leave. But the philosopher said: "One more thing," and conducted him to his desk. There, in a big glass of alcohol, he produced a strange creature, which had great similarity to a rotten pumpkin, with a few fibres which looked like undeveloped limbs. "This," said the sage, "is man as he was a thousand million years ago, before he degenerated into *amphioxus lanceolatus*, from whom we have started up again, so that we can hope in the next future to attain to something extraordinary." "Beautiful he is not," Edward said, disappointedly. "But clever," replied the sage; "I have searched his head. Those doubtful distinctions of here and there, of to-day and the day after to-morrow, which involve us into so many difficulties, did not exist at that time. The question whether twice two is four and everything else remained undecided, and as to the principles of geometry, I can assure you that in those days the crookedest line was the shortest path between two points."

Here the philosopher paused in order to leave his guest time to express his admiration, and to propose further questions.

"My honored sir," Edward said, "may I ask another little question?" He nodded kindly. "What do you think of ethics? What must man do so that he may prosper once for all?"

Without hesitation the sage opened a drawer, took out a flute, put it to his nose, closed the mouth, and, blowing up his cheeks, began to play as adroitly as a skilled canary-bird, that had received the first prize at the World's Fair. "Understand me? Are you convinced?" he asked, when stopping. "Not quite," Edward said. Then the philosopher began to sing:

"Upon the man who does refuse,
Treedle dee!
Our logic, and rejects our views,
Treedle dee!
We turn our back to slink away,
And mind not what he think or say,
Treedledit!"

Having finished his song, he blew the flute again, turning his head complacently now to this, now to that side. At last he stopped abruptly, replaced the flute in the drawer, and turned his back upon Edward. Without taking further notice of his visitor, the philosopher wrapped his gown tightly around him, and, crouching down on the floor, he crowed like an old Cochin-China rooster, and disappeared in the next room. The parrots crowed also.

Edward for a moment stood aghast and then left the philosopher's study in great haste. P. C.

[TO BE CONCLUDED.]

BOOK NOTICES.

The Century Magazine for November begins a series of articles on the Life of Napoleon Bonaparte by Prof. William M. Sloane, based upon a study of the original sources, and containing much that is new. After the fashion of *The Century*, it is profusely illustrated, and, so far as Mr. Sloane's studies have appeared, nothing of interest is forgotten. We may add, for those who do not know Prof. Sloane, that he is especially fitted for writing a life of Napoleon, as long sojourns in France have made him familiar with his subject and enabled him to ransack all the archives containing documents bearing on the history of the great Corsican. Born in Richmond, Ohio, in 1850, and a graduate of Columbia College, in 1868, he taught Latin for some time in the Newell Institute at Pittsburgh where his father was pastor of the Presbyterian Church. He studied in Berlin and Leipsic, where in 1876 he took his doctor's degree. In Berlin he was for a time attached to the American legation as private secretary to Mr. Bancroft, who was then writing the tenth volume of the History of the United States, and from whose experience in historical studies the young secretary had ample occasion to profit. In 1883 Mr. Sloane took the chair of Professor of the Philosophy of History at Princeton, and has since visited France several times in the interest of his Napoleonic researches. We may expect that the present series of articles will be the most impartial, the most reliable, and most interesting of all biographies of the great Corsican.

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ON THE RELATIVE EDUCATIONAL WORTH OF THE CLASSICS AND THE MATHEMATICO-PHYSICAL SCIENCES IN COLLEGES AND HIGH SCHOOLS.[1]

BY PROF. ERNST MACH.

Perhaps the most fantastic proposition that Maupertuis,[2] the renowned president of the Berlin Academy, ever recommended for the approval of his contemporaries was that of founding a city in which, to instruct and discipline young students, only Latin should be spoken. Maupertuis's Latin city remained an idle wish. But for centuries Latin and Greek *institutions* exist in which our children spend a goodly portion of their days, and whose atmosphere constantly envelops them, even when without their walls.

For centuries instuction in the ancient languages has been zealously cultivated. For centuries its necessity has been alternately championed and contested. More strongly than ever are authoritative voices now raised against the preponderance of instruction in the classics and in favor of an education more suited to the needs of the time, especially for a more generous treatment of mathematics and the natural sciences.

In accepting your invitation to speak here on the relative educational worth of the classical and the mathematico-physical sciences in colleges and high schools, I found my justification in the duty and the necessity laid upon every teacher of forming from his own experiences an opinion upon this important question, as partly also in the special circumstance that I was personally under the influence of school-life for only a short time in my youth, just previous to my entering the university, and had, therefore, ample opportunity to observe the effects of widely different methods upon my own person.

Passing, now, to a review of the arguments which the advocates of instruction in the classics advance, and of what the adherents of instruction in the physical sciences in their turn adduce, we find ourselves in rather a perplexing position with respect to the arguments of the first named. For these have been different at different times, and they are even now of a very multifarious character, as must be where men advance, in favor of an institution that exists and which they are determined to retain at any cost, everything they can possibly think of. We shall find here much that has evidently been brought forward only to impress the minds of the ignorant; much, too, that was advanced in good faith and which is not wholly without foundation. We shall get a fair idea of the reasoning employed by considering, first, the arguments that have grown out of the historical circumstances connected with the original introduction of the classics, and, lastly, those which were subsequently adduced as accidental afterthoughts.

* * *

Instruction in Latin, as Paulsen[1] has minutely shown, was introduced by the Roman Church along with Christianity. With the Latin language were also transmitted the scant and meagre remnants of ancient science. Whoever wished to acquire this ancient education, then the only one worthy of the name, for him the Latin language was the only and indispensable means; such a person had to learn Latin to rank among educated people.

The wide-spread influence of the Roman Church wrought many and various results. Among those for which all are glad, we may safely count the establishment of a sort of *uniformity* among the nations and of a regular international intercourse by means of the Latin language, which did much to unite the nations in the common work of civilisation, carried on from the fifteenth to the eighteenth century. The Latin language was thus long the language of scholars, and instruction in Latin the road to a liberal education—a shibboleth still employed, though long inappropriate.

For scholars as a class, it is to be regretted, perhaps, that Latin has ceased to be the medium of international communication. But the attributing of the loss of this function by the Latin language to its incapacity to accommodate itself to the numerous new ideas and conceptions which have arisen in the course of the development of science is, in my opinion, wholly erroneous. It would be difficult to find a modern scientist who had enriched science with as many new ideas as Newton has, yet Newton knew how to express those ideas very correctly and precisely in the

[1] An address delivered before the Congress of Delegates of the German Realschulmännervereins, at Dortmund, April 16, 1886.

[2] Maupertuis, *Œuvres*, Dresden, 1752, p. 339.

[1] F. Paulsen, *Geschichte des gelehrten Unterrichts*, Leipsic, 1885.

Latin language. If this view were correct, it would also hold true of every living language. Originally every language has to adapt itself to new ideas.

It is far more likely that Latin was displaced as the literary vehicle of science by the influence of the nobility. By their desire to enjoy the fruits of literature and science, through a less irksome medium than Latin, the nobility performed for the people at large an undeniable service. For the days were now past when acquaintance with the language and literature of science was restricted to a caste, and in this step, perhaps, was made the most important advance of modern times. To-day, when international intercourse is firmly established in spite of the many languages employed, no one would think of reintroducing Latin.[1]

The facility with which the ancient languages lend themselves to the expression of new ideas is evidenced by the fact that the great majority of our scientific ideas, as survivals of this period of Latin intercourse, bear Latin and Greek designations, while in great measure scientific ideas are even now invested with names from these sources. But to deduce from the existence and use of such terms the necessity of still learning Latin and Greek on the part of all who employ them is carrying the conclusion too far. All terms, appropriate and inappropriate,—and there are a large number of inappropriate and monstrous combinations in science,—rest on convention. The essential thing is, that people should associate with the sign the precise idea that is designated by it. It matters little whether a person can correctly derive the words *telegraph*, *tangent*, *ellipse*, *evolute*, etc., if the correct idea is present in his mind when he uses them. On the other hand, no matter how well he may know their etymology, his knowledge will be of little use to him if the correct idea is absent. Ask the average and fairly educated classical scholar to translate a few lines for you from Newton's *Principia*, or from Huygens's *Horologium*, and you will discover at once what an extremely subordinate rôle the mere knowledge of language plays in such things. Without its associated thought a word remains a mere sound. The fashion of employing Greek and Latin designations—for it can be termed nothing else—has a natural root in history; it is impossible for the practice to disappear suddenly, but it has fallen of late considerably into disuse. The terms *gas*, *ohm*, *Ampère*, *volt*, etc., are in international use, but they are not Latin or Greek. Only the person who rates the unessential and accidental husk higher than its contents, can speak of the necessity of learning Latin or Greek for such reasons, to say nothing of spending eight or ten years on the task. Will not a dictionary supply in a few seconds all the information we wish on such subjects?[1]

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It is indisputable that our modern civilisation took up the threads of the ancient civilisation, that at many points it begins where the latter left off, and that centuries ago the remains of the ancient culture were the only culture existing in Europe. Then, of course, a classical education really was the liberal education, the higher education, the ideal education, for it was the *sole* education. But when the same claim is now raised in behalf of a classical education, it must be uncompromisingly contested as bereft of all foundation. For our civilisation has gradually attained its independence; it has lifted itself far above the ancient civilisation, and has entered generally new directions of progress. Its note, its characteristic feature, is the enlightenment that has come from the great mathematical and physical researches of the last centuries, and which has permeated not only the practical arts and industries but is also gradually finding its way into all fields of thought, including philosophy and history, sociology and linguistics. Those traces of ancient views that are still discoverable in philosophy, law, art, and science, operate more as hindrances than helps, and will not long stand before the development of independent and more natural views.

It ill becomes classical scholars, therefore, to regard themselves, at this day, as the educated class *par excellence*, to condemn as uneducated all persons who do not understand Latin and Greek, to complain that with such people profitable conversations are not to be carried on, etc. The most delectable stories have got into circulation, illustrative of the defective education of scientists and engineers. A renowned inquirer, for example, is said to have once announced his intention of holding a free course of university lectures, with the word "frustra"; an engineer who spent his leisure hours in collecting insects is said to have declared that he was studying "etymology." It is true, incidents of this character make us shudder or

[1] There is a peculiar irony of fate in the fact that while Leibnitz was casting about for a new means of universal linguistic intercourse, the Latin language which still subserved this purpose the best of all, was dropping more and more out of use, and that Leibnitz himself contributed not the least to this result.

[1] As a rule, the human brain is too much, and wrongly, burdened with things which might be more conveniently and accurately preserved in books where they could be found at a moment's notice. In a recent letter to me from Düsseldorf, Judge Hartwich writes:

"A host of words exist which are out and out Latin or Greek, yet are employed with perfect correctness by people of good education who never had "the good luck to be taught the ancient languages. For example, words like "'dynasty.'... The child learns such words as parts of the common stock of "speech, or even as parts of his mother-tongue, just as he does the words "'father,' 'mother,' 'bread,' 'milk.' Does the ordinary mortal know the etymology of these Anglo-Saxon words? Did it not require the most incredible "industry of the Grimm's and other Teutonic philologists to throw the merest "glimmerings of light upon the origin and growth of our own mother-tongue? "Besides, do not thousands of people of so-called classical education use "every moment hosts of words of foreign origin whose derivation they do not "know? Very few of them think it worth while to look up such words in the "dictionaries, although they love to maintain that people should study the "ancient languages for the sake of etymology alone."

smile, according to our mood or temperament. But we must admit, the next moment, that, in giving way to such feelings we have merely succumbed to a childish prejudice. A lack of tact but certainly no lack of education is displayed in the use of such half-understood expressions. Every candid person will confess that there are many branches of knowledge about which he had better be silent. We shall not be so uncharitable as to turn the tables and discuss the impression that classical scholars might make on a scientist or engineer, in speaking of science. Possibly many ludicrous stories might be told of them, and of far more serious import, which should fully compensate for the blunders of the other party.

The mutual severity of judgment which we have here come upon, may also forcibly bring home to us how really scarce a true liberal culture is. We may detect in this mutual attitude, too, something of that narrow, mediæval arrogance of caste, where a man began, according to the special point of view of the speaker, with the scholar, the soldier, or the nobleman. Little sense or appreciation is to be found in it for the *common* task of humanity, little feeling for the need of mutual assistance in the great work of civilisation, little breadth of mind, little truly liberal culture.

A knowledge of Latin, and partly, also, a knowledge of Greek, is still a necessity for the members of a few professions by nature more or less directly concerned with the civilisations of antiquity, as for lawyers, theologians, philologists, historians, and generally for a small number of persons, among whom from time to time I count myself, who are compelled to seek for information in the Latin literature of the centuries just past.[1] But that all young persons in search of a higher education should pursue for this reason Latin and Greek to such excess; that persons intending to become physicians and scientists should come to the universities defectively educated, or even miseducated; and that they should be compelled to come only from schools that do *not* supply them with the proper preparatory knowledge is going a little bit too far.

* * *

After the conditions which had given to the study of Latin and Greek their high import had ceased to exist, the traditional curriculum, naturally, was retained. Then, the different effects of this method of education, good and bad, which no one had thought of at its introduction, were realised and noted. As natural, too, was it that those who had strong interests in the preservation of these studies, from knowing no others or from living by them, or for still other reasons, should emphasise the *good* results of such instruction. They pointed to the good effects as if they had been consciously aimed at by the method and could be attained only through its agency.

One real benefit that students might derive from a rightly conducted course in the classics would be the opening up of the rich literary treasures of antiquity, and intimacy with the conceptions and views of the world held by two advanced nations. A person who has read and understood the Greek and Roman authors has felt and experienced more than one who is restricted to the impressions of the present. He sees how men placed in different circumstances judge quite differently of the same things from what we do to-day. His own judgments will be rendered thus more independent. Again, the Greek and Latin authors are indisputably a rich fountain of recreation, of enlightenment, and of intellectual pleasure after the day's toil, and the individual, not less than civilised humanity generally, will remain grateful to them for all time. Who does not recall with pleasure the wanderings of Ulysses, who does not listen joyfully to the simple narratives of Herodotus, who would ever repent of having made the acquaintance of Plato's Dialogues, or of having tasted Lucian's divine humor? Who would give up the glances he has obtained into the private life of antiquity from Cicero's letters, from Plautus or Terence? To whom are not the portraits of Suetonius undying reminiscences? Who, in fact, would throw away *any* knowledge he had once gained?

Yet people who draw from these sources only, who know only this culture, have surely no right to dogmatise about the value of some other culture. As objects of research for individuals, this literature is extremely valuable, but it is a different question whether it is equally valuable as the almost exclusive means of education of our youth.

Do not other nations and other literatures exist from which we ought to learn? Is not nature herself our first school-mistress? Are our highest models always to be the Greeks, with their narrow provinciality of mind, that divided the world into "Greeks and barbarians," with their superstitions, with their eternal questionings of oracles? Aristotle with his incapacity to learn from facts, with his word-science; Plato with his heavy, sesquipedalian dialogues, with his barren, at times childish, dialectics—are they unsurpassable?[1]

[1] Standing remote from the legal profession I should not have ventured to declare that the study of Greek was not necessary for the jurists; yet this view was taken in the debate that followed this lecture by professional jurists of high standing. According to this opinion, the preparatory education obtained in the German Realgymnasium would also be sufficient for the future jurists and insufficient only for theologians and philologists. [In England and America not only is Greek not necessary, but the law-Latin is so peculiar that even persons of *good* classical education cannot understand it.—*Tr.*]

[1] In emphasising here the weak sides of the writings of Plato and Aristotle, brought to my attention while reading them in German translations, I, of course, have no intention of underrating the great merits and the high historical importance of these two men. Their importance must not be measured by the fact that our speculative philosophy still moves to a great extent in their paths of thought. The more probable conclusion is that this branch has made very little progress in the last two thousand years. Natural science

The Romans with their apathy, their pompous externality, set off by fulsome and bombastic phrases, with their narrow-minded, philistine philosophy, with their insane sensuality, with their cruel and bestial indulgence in animal and man baiting, with their outrageous maltreatment and plundering of their subjects—are they patterns worthy of imitation? Or shall, perhaps, our science edify itself with the works of Pliny who cites midwives as authorities and himself stands on their point of view?

Besides, if an acquaintance with the ancient world really were attained, we might come to some settlement with the advocates of classical education. But it is words and forms, and forms and words only, that are supplied to our youth; and even collateral subjects are forced into the strait-jacket of the same rigid method and made a science of words, sheer feats of mechanical memory. Really, we feel ourselves set back a thousand years into the dull cloister-cells of the Middle Ages.

[TO BE CONTINUED.]

also was implicated for centuries in the meshes of the Aristotelian thought, and owes its rise mainly to having thrown off those fetters.

THE PHILOSOPHY OF A HUMORIST.

[CONCLUDED.]

III. THE DOMAIN OF MORAL ASPIRATIONS.

Having escaped from the philosopher's study, Edward entered in his dream another world. He found himself in a pleasant valley, the roads fringed with fruit-trees, and saw at a distance mountains rising higher and higher, finally to disappear in the clouds. The broad highroad was crowded with many merry people, all travelling in the same direction. One only ran back. He looked wretched, was covered with bruises, and ill at ease. He jumped over the fences and ditches without looking behind him. "Tommy has gone crazy," said the people, laughing, and went on.

Edward soon noticed whither the people went. Where the highroad approached the rocks, near a dark tunnel, there stood an inn called "The Cloven Hoof," an old spacious mansion newly furnished, and for ages very popular as a pleasure-resort. The host, a jovial fellow, limped slightly. People say that in his youth he had been in a brawl in which he got the worst of it. His seven daughters, who were jokingly called the "Seven Deadly Sins," contributed greatly to increase their father's business. From the porch they threw kisses to the arriving guests. In the basement he saw the cook standing in the kitchen,—an old, wrinkled hag, the grandmother of mine host, the landlord. All the guests at the inn were extremely merry. There was music and dancing, and no one thought of going home. Among the guests Edward found many old acquaintances. As is usual in dreams, he was not at all astonished; but there was one thing he could not make out; he saw the really good man who had contributed his share to the collection for foreign and home missions sitting in a corner, together with one of the daughters of the host, drinking champagne. At midnight the hotel 'bus came to the rear door. Its color was black, and it had silver trimmings. It was not arranged for sitting, but for lying; and was not opened behind, but above. It did not bring newcomers, but took them away. The driver, with his black coat, looked much pleased, but he was pale and thin, like Hunger personified. Shouting to the horses "get up," he drove into the tunnel. But the dance went on as before.

As the morning dawned our pilgrim in dreamland approached the mountains and came into the company of four travellers. They were called "The Four Good Intentions." The name of the first was "I Had Better," of the second "Shouldn't I," of the third "However," and of the fourth "Never Mind." Mr. I-Had-Better had a red nose; Mr. Shouldn't-I had a round belly; Mr. However had big black spectacles; and Mr. Never-Mind was a sleek little fellow, who knew best himself how pleasant he was. They inquired about Edward's affairs and his name, whereupon he said:

"I come from naught,
I am full of thought,
I'm not easily caught;
But my name I won't tell you."

"Then we'll call you Spirlifix," pleasantly shouted Mr. Never-Mind. The three others laughed so heartily that Mr. I-Had-Better's nose became blue, three buttons of Mr. Shouldn't-I's vest sprang off, and Mr. However's spectacles became hazy with tears of laughter. Edward was not very much pleased with the joke and flew about three yards above the company. In humorous chats they walked on, and the sun rose higher. Mr. Shouldn't-I took off his coat and hanging it on his stick carried it over his shoulder. Mr. Never-Mind began to whistle, Mr. I-Had-Better said "Move slowly, for I 've got a blister on my heel," and Mr. However observed "It is sultry. We may have a thunder storm."

When the sun rose still higher Mr. I-Had-Better stood still, took out a bottle and said, "What do you think of this?" Mr. Shouldn't-I took out a big sausage, saying: "What do you think of that?" Mr. However stopped also, beginning slowly, "If we are only not—" but before he could finish, Mr. Never-Mind took out his knife, and shouting: "Come old blade," proposed to cut the sausage. Then they looked for a cool place, sat down and took lunch. Edward seated himself upon a withered branch and looked at them. "Spirlifix, come down," shouted the good-natured Shouldn't-I, showing his sausage, and I-Had-Better offered the bottle. "Thank you," said Edward,

for he felt above these trivialities. After a while the four travellers continued their march, and the sun shone down almost perpendicularly. Their steps became slow and their talk discontinued. First, Mr. I-Had-Better remained behind. He sat down under a big tree, took off his shoe and rubbed his foot with tallow; then Mr. Shouldn't-I stopped too and sat down to rest behind another tree. But their comrades did not notice the absence of the two. They came to a place where they could look down into the valley, and they saw at the foot of the mountain the jovial establishment from which they had started in the morning. The sound of pleasant music came up to them and Mr. Never-Mind stood still, took out his opera-glass, and when he became aware of the many pretty girls sitting in the garden he went to the slope and slid down. Mr. I-Had-Better saw where Mr. Never-Mind had started for and also began to slide down. Mr. Shouldn't-I was at once inclined to do the same and followed him. Thus Mr. However, who was deep in thought and did not notice the absence of his colleagues, continued his march alone. "Boys," he began, "the more I consider it, the more I find that our project is a very doubtful enterprise, what do you think?" Turning round he saw no one and said, "My spectacles are hazy, I have perspired." And having wiped his glasses he at last discovered his colleagues sliding down hill. Mr. However was always given to reflexion, but as soon as he had made up his mind his decision was firm. So it was now; he went down hill too and arrived at the end quicker than his comrades.

Our dreamer in the meantime continued on his way. Before him walked a pedlar carrying a wicker-basket full of glassware. He was very careful, and passing the stump of a tree placed the basket on it. Relieved of his burden, he sat down in the grass to rest. "Alas," he sighed, "how troublesome is life." Suddenly a gust of wind came and blew the basket to the ground, so that all the glass broke. "Woe upon me!" said the pedlar, "I have scarcely uttered a word of complaint and this accident happens!" He was very much crestfallen and went to the sandy slope, placed himself in the empty basket, used his stick as a rudder and slid down hill. There he met the four Good Intentions and was merrily welcomed by them. He must have been an old acquaintance of theirs. The music just played a splendid *pot-pourri* and the fun was great.

Continuing his upward journey the migratory dreamer came among the rocks and found in a cave, tied to his seat, with his back turned towards the light and his face towards the wall that unfortunate man of whom Plato tells us; he has by this time been reborn ten thousand times and yet knows nothing of the things which pass by at the entrance of his cave, recognising only the shadows which they throw at the wall. Edward stood still a few seconds at the opening of the cave. The Platonist thought it was a black fly-speck at the wall and greeted his visitor as such, who left him with a smile.

As our hero approached the next corner of the rocks he heard a noise similar to that which the cook makes when pounding meat. Coming near he saw a man who was whipping his naked back mercilessly. "What do you do, good friend?" Edward asked. "Life is a blunder," the man said, busily continuing his work, "I scourge it."

Edward went higher and arrived in a desert place where he saw a bald-headed man looking fixedly at one and the same spot. "What do you do, old boy?" Edward asked him. "Life is an error," the bald-headed man said, "I think it away." He had thought away all his hair and continued to think.

Again our dreaming wanderer went higher and reached a hermitage where, on a mossy stone a hoary hermit sat motionless, without stirring a limb. "What do you do, my friend?" Edward asked. "Life is a sin," said the hermit, "I do penance for it;" and he continued to sit quietly.

Rising higher and higher Edward came to a green, flowery meadow in the middle of which rose a mighty castle. It had neither windows nor embrasures nor chimneys, but only one firmly locked gate with a drawbridge. It appeared to be built of smooth steel, so that no one, not even the hero of this story, although he was a mere point, and a dreaming point, too, could enter. Edward made several attempts to penetrate through the walls of the castle, but in vain. It was a painful sensation to him, for either the liberty of unimpeded motion which he had always imagined he possessed had noticeably disappeared, or there must be things which were too strong for him.

Edward addressed himself to an old forester who stood at the edge of the woods, but he seemed deaf for he placed his hand behind his ear and began to draw the smoke from his pipe with greater vigor than before. "Old graybeard," said Edward, "can you not tell me what that castle is good for?" "Little imp," he replied, "I also belong to those who do not know, but my grandfather told me often that he didn't know either, and as to his grandfather he had told my grandfather that its existence was beyond recollection, and people supposed a secret tunnel to exist between the castle on the mountain and the inn down in the valley." "What," thought our dreamer, "little imp he calls me?" Edward turned his back upon the old chap and looked at the castle. In the moat a number of little pitch-black devils were sporting. They were trying to catch butterflies with nets, and when they had caught one they fastened him with pins. Now the gate of the

castle opened and a long procession of rosy babies thronged out over the bridge to the meadow. They began to play merrily, and the little devils mixed themselves up with the children, teasing them and wrangling with them. But the color of the little devils rubbed off, and the children looked as if they had been playing Old Maid. Upon the trees which stood round the meadow there were numerous stork-nests, and in every nest stood a stork upon one leg thoughtfully observing the children's games. Suddenly all of them flew down upon the meadow, every one took a little boy or little girl in his bill, and away they went high above the woods. The children screamed, but the little devils made somersaults and shouted merrily:

"Stork, thou red-legged twister,
Bring us a little sister.
Stork, fly to my mother,
Bring us a little brother."

The narrow pathway which led up to this place turned to the left into the forest, and our wanderer came to a torrent which roared down the hill. Thick thorns obstructed Edward's view and when he had worked through the thistles he saw before him another country and a path leading still higher and higher. The path was very narrow, and a few quiet pilgrims, every one patiently carrying his burden, were walking thereon. "Move slowly, my friend, and take me along," said Edward to one of them. He viewed the speaker with a compassionate look and said: "Poor stranger, thou hast no heart."

Edward was amazed even in his dream, and he paused. He followed the pilgrims with his eyes as they modestly continued their journey. They passed over the torrent on a plank serving as a bridge. On the other bank there was a wall with a narrow door. The pilgrims entered, and the door shut upon them. Our little adventurer tried to get in, but the door had no key-hole, and the wall to the right and to the left appeared impenetrable. He rose up and looked above the wall, and there he saw a glorious temple city built of precious stones and illumined by a transcendent light, much more beautiful than sunshine. He tried to fly over the wall, but a strong shock repelled him. Beyond the first wall there was a second wall—one which he had not noticed—infinitely higher and of the purest transparent crystal. He buzzed for a while up and down, like a fly at a window-pane, until he fell down exhausted. Suddenly a shadow passed over him and when he looked back, one of the little black devils whom he had seen on the meadow stood before him. "What are you doing here, you rascal?" the ugly creature shouted, and opened his grinning mouth so far that Edward began to perspire with fright, and he stammered, "I am not so bad." "What do you say?" replied the black fellow. "I will catch you," and he put out his long, red tongue, raised his butterfly net, and tried to catch poor Edward, who speedily hastened away. He went up high into the air; the devil followed. He flew in zigzag lines; the devil always after him. He ran round a tree several hundred times; the devil was close at his heels, and would certainly have caught him, had he not happened to see a big giant with his eyes shut and his mouth open, a stately fellow, who lay asleep, and Edward thought, "I must know this big man." Dead with fright and in the last moment of emergency, our dreamer's pursued soul jumped into the giant's open mouth and escaped into a kind of attic with two windows.

We let Edward finish the story of his dream in his own words: "The morning was dawning. There were pictures on the walls which were not very faithful portrayals of what they represented. The hand of the clock pointed to half-past six. The room was not yet put in order. An odor of coffee came to me. I went down stairs and opened the door—there was a dimly lighted reception-room with red curtains. Upon a little golden throne sat the most beautiful of women, a portrait of my wife, Elise. She smiled, opened her lips, and said: 'Edward, get up; coffee is ready.' I awoke. My good Elise, with our little Emil in her arms, stood before my bed. I had recovered my heart and that of Elise, and that of our little Emil, too. All jesting aside, my friends, if one only has a heart he will feel and confess from the bottom of his heart that 'he is no good.' All else will take care of itself."

P. C.

THE PILGRIMAGE OF ANTHONY FROUDE.

BY MONCURE D. CONWAY.

III.

"MANKIND triumph of a sudden?" asks Robert Browning: and answers: "The work should be one of ages, if performed equally and thoroughly; and a man can but do a man's portion. The last of each series of workmen sums up in himself all predecessors. We just see Charlemagne, Hildebrand, in composite work they end and name."

In estimating the tremendous spiritual revolution which the European and American mind has undergone during the two generations ending with the graves of its leaders, we are now able to recognise the composite work of the greatest of those leaders. In England three armies are discoverable behind the commanders in a triangular war,—Coleridge, Carlyle, and (Cardinal) Newman. The fiery battle was between Carlyle and Newman. Both compelled the cultured youth to flee the comfortable Church as a City of Destruction, but one urged them to seek the Celestial City at Rome, the other drawing them to a Pantheistic Universe. Meanwhile Coleridge endeavored to persuade the young men that they could remain in the

Church and translate its creeds and formulas into Carlyle's transcendental ideas, or into any visions that attracted them. Coleridge's "Moonshine," as Carlyle called it, had a charm of its own. Those who have not been trained to the clerical profession may fancy that the only thing which holds clergymen in a church after their faith is shaken is the loaves and fishes; but they are mistaken; there must be considered the longing of the cultured spirit to bear its fruit, and the fearful desert into which that soul passes which has given all its seed-time, its years of preparation, only to learn that all have been wasted on clouds, where no harvest can be reaped. Carlyle has said, in his *Life of Sterling*, hard things about the Coleridgeans, but I once heard him describe their last apostle, Frederic D. Maurice, as "the most devout-minded man in England." However, the most intellectual youths could not undergo the new baptism of sprinkled moonshine, and for a time it looked as if Newman would conquer. Froude was one of his charmed captives, and his first literary work was assistance to Newman in *The Lives of the English Saints*. But one day, as I have heard, the Doctor's keen eye discovered at the close of a biography by Froude, "This is all that is known of this eminent Saint, and considerably more."

In a preface to the second edition of *The Nemesis of Faith* (1849) Froude found it necessary to deny a report that the book was autobiographical. His friends knew, of course, that there had been nothing in his career, always quiet and unadventurous, like the incidents related of the hero; but they also knew that in its episode, "Confessions of a Sceptic," the author had traced his own pilgrimage from Newman to Carlyle. I quote a striking passage:

"I believe no young man ever heard him [Newman] preach without fancying that some one had been betraying his own history, and the sermon was aimed especially at him. It was likely that, while he had possession so complete of what we did know of ourselves, we should take his word for what we did not; and while he could explain *us*, let him explain the rest for us. But it is a problem heavier than has been yet laid on theologians, to make what the world has now grown into square with the theory of Catholicism. And presently, as we began to leave the nest, and, though under his eye, to fly out and look about for ourselves, some of us began to find it so. . . . He was not the only greatly gifted man in England. I think he was one of two. Another eye, deep-piercing as his, and with a no less wide horizon, was looking out across the same perplexed scene, and asking his heart, too, what God would tell him of it. Newman grew up in Oxford, in lectures, and college chapels, and school divinity; Mr. Carlyle, in the Scotch Highlands, and the poetry of Goethe. . . . It was brought home to me that two men may be as sincere, as earnest, as faithful, as uncompromising, and yet hold opinions as far asunder as the poles. . . . This conviction is the most perilous crisis of our lives; for myself it threw me at once on my own responsibility, and obliged me to look for myself at what men said, instead of simply accepting all because they said it."

In the story, the Nemesis—or Vengeance—of Faith is tragically illustrated in the career of Rev. Markham Sutherland. He had temporarily silenced his doubts in order to go on with his ministry, but the doubts afterwards flamed out, and he left his charge to travel in Italy. Wandering there, homeless and aimless, he meets and falls in love with his ideal woman, who falls in love with him. Unfortunately, she is married. The moral recoil and grief bring him to the verge of suicide; the poison is dashed from his hand by an old Oxford friend, who suddenly appears. This friend, who has become a Catholic, hears the sorrowful story and points the miserable youth to another kind of suicide: he enters a monastery.

In one of the first conversations I ever had with Froude, he said: "Carlyle is incomparably the greatest genius I have ever seen." I have a note of his words, and of conversation with Carlyle the same evening. It became evident to me that Froude's career as a historian had been mainly determined by Carlyle. Froude's genius was that of an imaginative writer; and such men are but too easily captured by the bow and spear of a great and striking personality. As Father Newman had set young Froude to writing lives of the saints, Carlyle set him on History. Carlyle could never quite forgive Shakespeare for writing plays instead of history, and he now and then upbraided Tennyson to his face for writing in rhyme instead of prose. I am certain that if it had not been for Carlyle, Froude would have continued his philosophical romances, and I believe he would have enriched English literature with imaginative works of unique character. But a genius of such force could not be entirely altered even by so strong a spirit as Carlyle. It would not be just to say that Froude went on writing romance and calling it history and biography; but it appears to me true that the chief charm of his *History of England* is the imaginative fire playing through it. His Henry VIII., Mary Stuart, Queen Elizabeth, and other personages, are largely his own creations, and live before us because transfused with the life-blood of Froude's brain. And if my belief in Carlyle's perverting influence be true, it may be regarded as a kind of posthumous "Nemesis" that he himself (Carlyle) should have fallen into the hands of a biographer so imaginative. In his *Life of Carlyle*, Froude certainly meant to tell the whole truth, but he could not resist a picturesque situation, or a dramatic surprise; he was overpowered by his imagi-

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native art; and the result is that most of those who knew Carlyle and his wife intimately feel that the world generally does not yet know the real man and woman. A true, critical, and impartial Life of Carlyle remains still the desideratum of modern English biography. And I will venture to add my conviction that a true critical History of England also remains a desideratum, although Froude's work is the most important contribution to it, and presents a mass of painstaking research, as well as bold criticisms, whose value has not been diminished by the microscopic cavils of his conventional prosecutors.

The original and individual genius of Froude, though, from the cause above indicated, it never, as I think, reached full fruitage, gains its fullest expression in his volumes entitled *Short Studies on Great Subjects*. Several of these, as he told me, were begun in his youth and revised and amplified in mature life. They display every variety of ability, and the subtle play of his fine imagination pervades every page.

Froude had a great deal of humor and extraordinary powers of conversation. In the course of his vast reading in ecclesiastical history he had made personal acquaintance, as it were, with striking figures unknown to general history, and portrayed them vividly in quaint anecdotes. I have heard him repeat the very exhortations of monks going about England, hawking, so to say, St. Thomas à Becket, to induce the people to patronise him in preference to other saints. "A poor Christian had his eyes torn out, and he called on all the saints, on the Holy Virgin, in vain; but when he called on the blessed St. Thomas there came into his sockets two things like green peas: one grew to a good eye, the other remained like a pea, but he saw fairly well." Froude impressed me as Renan and Strauss did, in conversation, as a thorough sceptic. Sometimes agnostic, sometimes theistic, positive only in his negations. He repeatedly declared that Spinoza seemed to him to have said the last word in his *Ethics* concerning unknowable things. He believed that "otherworldliness" was arresting civilisation, and that the belief in personal immortality must more and more become dim. "Perhaps instead of all individuals being immortal, it may be that each family is ultimately developed and summed up in some immortal being." (So he would talk half seriously.) "May we not be deluded by mechanical progress? The old problems return. We appear to be on a spiral stair, and come round and round again to the same notions and superstitions, though we give them a finer expression, being a little higher in externals." "In reading Lucian, I often feel as if he were dealing with essentially the same religious conditions as those which surround us. He was not so much troubled about old superstitions as about the new and growing ones." "Can you tell me a single precept of Christ which could be strictly, without any qualification, followed practically in society today?" "We are very tolerant just now, but it is doubtful if certain dogmas will long be tolerated. Fancy a preacher getting six months for frightening little children with the Devil and hell-fire!" In illustration, if I remember rightly, of the inability of the flocks to understand their shepherds, he related a story of the late Bishop Bloomfield, preaching in a rural district on "The fool hath said in his heart, there is no God." After the sermon the bishop, riding away, joined a farmer, and asked him what he thought of the sermon. "It were a very able sermon, Mr. Bishop," said the farmer; "but I couldn't agree with your lordship, because I believe there *be* a God." He much loved Emerson, and by his desire I wrote many articles in *Fraser* about Emerson. He thought there were "ten readers of Emerson in England for one reader of Carlyle." "As compared with other eminent men whom I have known, there is this peculiarity about Carlyle: he does not merely impress me as saying what he believes true, but what *is* true."

Every week I had a walk with Froude, often it was to Kew Gardens, for he had a great love for distant developments of nature. One day we observed the just perishing blossom of a century plant (*Agave Americana*), and Froude humorously philosophised on it a little. "That American plant, shooting up so many feet into the air, thought it was making great progress, but it was only coming to nothing. It will have to begin again after a hundred years, and, untaught by this forgotten bit of its history, shoot aloft again,—perhaps again to wither. How much so-called progress is like that!"

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STRIKES, LOCAL AND SYMPATHETIC.

BY G. KOERNER.

I cannot help believing that on some days during the strikes Chicago was nearly in a situation, where at least for a short period it might have become the scene of riots and outrages, such as happened at Paris under the reign of the communists and anarchists in March, 1871. A few men commit an unlawful act. A chance shot, no one knows by whom fired, may kill a bystander, perhaps a woman. The cry of deliberate murder is started. Vengeance is invoked. The crowd increases. It soon becomes a mob. Agitators fan the flames. It comes to a conflict with the police or the militia. They may be overpowered. The lives and the property of the citizens may be at the mercy of the infuriated mob. This is the time for the scum and dregs, which every large city contains, to emerge from their dens to revel in theft, arson, destruction of property and murder.

Undoubtedly our government is strong enough to put down such a rising, amounting to an insurrection. It has crushed a rebellion of such magnitude as the world had never witnessed before in a four years civil war. It would have made short work of the Chicago riots. But as the State and federal help came somewhat tardily, lives have been lost, property to the amount of many millions directly and indirectly destroyed.

The cause of all this ever to be regretted commotion was a strike of workingmen engaged by a private corporation, in which really no one had any interest except the corporation and its employees. If, from representation by the laborers, by sensational articles of the press, it was asserted that justice and equity was on the side of the strikers, it was but natural that the public took some interest in this local contest, but it was purely a sentimental one. That a certain trades union should have ordered a general strike, or, rather, a boycott, on nearly all the railroads in the country that used the articles manufactured by the corporation in question, merely on account of the good feeling for the local strikers, was not only, considering the depression of business at the time, an insane but a criminal act.

Before I go farther however, I may be permitted to speak of the nature of strikes and lock-outs historically, as I wish to draw a distinction between strikes and strikes, holding some to be justifiable, others unwarranted and wholly illegal.

There is really no substantial difference between strikes and lock-outs. A strike has been defined a suspension of work resulting from a dispute originating in some demand of the employed; a lock-out in some demand of the employer. It is really only a question as to who takes the initiative in the stopping of the works.

Strikes, it has been asserted, were as old as the known history of the world. Justice Brown, of the Supreme Court of the United States, in a highly interesting address "On the Distribution of Property," delivered before the American Bar Association at Milwaukee, August 31, 1893, mentions the *exodus of the Israelites from Egypt* as having been a protest against the oppression of capital, and to have possessed the substantial characteristics of a modern strike. If we refer to the Book of Exodus in the Old Testament one would rather come to the conclusion that it was a question of emigration. Certainly the Jews, since they had settled first in Egypt with the full consent and encouragement of the rulers of the country, had become quite unpopular, had been reduced into a sort of slavery (peonage, perhaps), and were employed to perform hard and menial work. Moses and Aaron being commissioned by the Lord, as they believed, made strenuous and repeated efforts to get permission for the Jewish people to emigrate, but did not succeed. Finally, by the Lord Jehovah punishing with various sorts of plagues the people of Egypt, they were allowed to depart. Another and perhaps a stronger motive for their emigration was the wish to go to the land of Canaan, the former abode of Abraham and Jacob. They carried the embalmed body of Abraham along with them.

Justice Brown also speaks of the removal of the plebeians to the sacred mount, driven through despair the oppression of the Patricians. It seems, however, by not to have been a question of wages so much as one of general oppression. There existed most cruel laws against people in debt, in consequence of which all the property, the person, and even the children of the

debtor, when strict payment was not made, were given over to the creditors to do with them as they pleased.

Interest was excessively high. Another cause of discontent was the failure of a fair distribution of the lands which the Roman armies had conquered from the surrounding Latin tribes, and of which armies the plebeians formed by far the greatest part. Such distribution had been promised to induce them to enlist. There was at the time of which Livy speaks a war threatening with the Volsks, a very warlike people, and the plebeians refused to fall in line and seceded to the Mons Sacer.

Upon certain concessions being made, such as enlarging the authority of the tribunes of the people and others relating to civil rights, the plebeians returned to Rome. This movement comes nearer to a strike than the Exodus, but it was rather in the nature of a secession, for in all probability the plebeians would have attempted to organise a separate State.

Mr. U. M. Rose, of the Chicago bar, at the same meeting of the American Bar Association, read a most admirable paper on strikes and trusts. He quotes from Livy Lib. IX, chapter 30, of a real strike, occurring at Rome 310 years before Christ, as being the first historical account of a strike on record. The guild of flute-players, to whom belonged the privilege of playing at the public sacrifices, had been prohibited by the last censors from holding their repasts in the temple of Jupiter, went off in a body to Tibur, so that no one was left to play at the sacrifices. The religious tendency of this affair gave great uneasiness to the Senate, and they sent envoys to Tibur, requesting the authorities to send the players back to Rome. The Tiburians tried hard to persuade them to return, but their efforts were unsuccessful. Finally they got rid of them by a very comical ruse, making the players at a feast drunk to insensibility and packing them off to Rome; a thing easily to be done, remarks Livy, with that class of people. Upon their original demands being complied with by the Senate, they stayed at Rome, enjoying their privileges up to the time Livy wrote his histories.

We are also indebted to Mr. Rose for a quotation from Cons. 12, Codex Lib. VII, Tit. x, being a highly interesting ordinance in the reign of Zeno, 474 A. D. It is directed against strikers and also against trades unions, and threatened them with very heavy penalties. It is too long to be cited here, but the occasion for this rescript, as set out in it, is strikingly similar with late occurrences in our country.

There was a real strike however anterior to that of the flute-players, which is not noticed by Mr. Rose, the strike of the Athenian married women, who, believing themselves neglected and oppressed by their husbands, organised a strike, of which the high-spirited, naughty, cynical Aristophanes gives us such a ludicrous account in his farce, Lysistrata. That strike turned out like a vast majority of strikes since—a dead failure.

Considering the system of slavery pervading the ancient world, what we call strikes, lock-outs, and boycotts could hardly occur to any extent. Slaves, when too heavily oppressed, and when they found men to organise and lead them, rose up in insurrection, and bloody and cruel slave-wars made Carthage as well as Rome tremble for their existence.

It is to the middle ages and up to recent times that strikes and boycotts, the latter called *"revilings"* in English and *"Verrufserklärungen"* in Germany, became very common. The juridical records of Great Britain and of the continent of Europe abound with laws directed against these efforts of the laboring classes to escape oppression and to better their condition. Were all these laws, ordinances, and rescripts collected, they would fill volumes. As a general thing, all combined movements of workingmen of every class, trying to obtain relief from their employers, were considered as conspiracies and highly punished, even where no violence was committed, for in that case the strikers fell under the general criminal law of the land, were indicted for murder, manslaughter, riot, or insurrection. In some few of these penal statutes strikes were not denounced as unlawful, if not attended with threats or violence, but up to the present century, and even up to more recent times, they were generally considered unlawful without exception. Some of these ancient statutes threatened severe punishment to persons convicted of participating in strikes, such as cutting off their ears; in some places in Germany the punishment provided was death, often actually inflicted, as we learn from old chronicles.

In former ages life was held of much less value than now. Punishments were cruel and inhuman. That they showed little mercy to strikers and boycotters sprung from their holding that a successful strike could not possibly be without breach of the public peace, and without acts of violence, a view which even now finds some advocates.

Strikes without violence have now by custom, legal decisions, and even statutes, been made lawful, but I presume that this legality does not attach to all kinds of strikes, but only to local ones. Even before the recent disastrous strikes, which almost brought us to the verge of civil war, what were called sympathetic strikes were frequently deprecated, as being most dangerous and destructive to the welfare of the commonwealth. The great coal-strike early in the spring, not being confined to localities only, had the most deplorable consequences. Not only have perhaps a hundred thousand miners lost their wages, but they have been thrown into idleness, making them dependent on the

charity of their neighbors. The demoralising effect of such a situation can hardly be overestimated. Coal being an indispensable article for manufactories, and for transportation by rail and steamboat, the whole business of the country was interrupted. Thousands of other workmen were thrown out of employment. Not to speak of many acts of violence and even murder connected with this coal-strike.

And here I may mention quite a curious and remarkable fact to which Mr. Jos. D. Weeks, in his report to the Census Bureau, has called public attention. Alluding, as I believe, more particularly to the great strike at Pittsburg against the Pennsylvania Central, he expresses himself as follows:

"Of the utter folly of many strikes there can be no doubt. They have been doomed to defeat from their inception. They have been undertaken in defiance of all economic laws, in ignorance of the real condition of the country and without just cause. They have wasted capital and decreased the wealth of the country. They have brought hunger, misery, death; have broken up homes, *and driven men and women and little children into the very shadow of death; and yet men, knowing that all these possibilities are before them, will deliberately enter upon strikes, will cheerfully bear all these privations, and, what is more remarkable still, in many instances, the wives of the strikers, upon whom the misery falls with the most crushing force, will be the most determined in this resolution.*"

After the Pullman strike and its dreadful consequences, the public voice was raised loudly against sympathetic strikes. With few exceptions, the entire press of the country condemned them. Judges on the bench, in their charges, denounced them. So did public speakers and State officials.

But I have in vain looked for a suggestion of a remedy for this crying evil. I have certainly a very kind feeling for the hard laboring classes. Strikes, I deem it, are not wholly wrong, and in the language of the report of Mr. Weeks, already mentioned:

"Even unsuccessful strikes are in many ways advantageous to the strikers. Labor has to fight for every advantage it has gained, and though it is often defeated in its struggles that are called strikes, it has not only learned in these contests how better to wage future battles, but it has so impressed employers with its strength that it has made them shy of encountering antagonists constantly growing more formidable."

Now, is there no remedy against these sympathetic or sentimental strikes, so deleterious to the whole community, including the working classes themselves? After a somewhat careful examination of existing laws and constitutional provisions I have come to a conclusion, which with great diffidence and as a mere suggestion I venture to bring to public notice.

All strikes under the ancient common law of England, until a comparatively recent time, were considered as conspiracies, and strikers were punished as such. Even in the United States not very many years ago the same doctrine was held. But I do strongly insist that there should be a distinction drawn between *local* and *sympathetic* strikes. If, for instance, say in a coal district, disputes arise between coal operators and miners, and the latter strike, let the matter be settled between them without any interference on the part of legal authorities. The strike will finally end by arbitration or submission by one side or the other. Only where violence is committed or threatened let the law have its course.

In cases, however, where no trouble whatever exists in the district, or in any other place where a relationship exists between employers and employees, and no complaint has been made as to wages or other dealings, a strike arising from orders issued by leaders of trades unions or similar associations a thousand miles off and admitted by the strikers themselves, who obey those orders, to be a sympathetic strike, *should be forbidden by law even if no acts of violence are committed.*

Who has not heard during the recent strikes many strikers assert that they were very anxious to work at the wages they got, but that they were afraid of their lives and limbs if they did not stay out. In such cases it seems to me strikers should be held *individually* responsible, particularly those who as walking delegates intrude into other localities where there is no trouble. Civil actions against strikers for damages would be of no avail, nor could they, by law, be compelled to work, if they are unwilling to do so. But the law ought to declare sympathetic strikes a public offence and the strikers guilty of a misdemeanor, to be punished by fine or imprisonment upon conviction before any competent court. No State's attorney would have the least trouble in proving a strike to be a sympathetic one, as the cases are generally manifest and admitted openly by the persons concerned.

To bring about this remedial relief in many States perhaps legislative action will be required. As the legislatures of a great majority of the States are about to assemble, it is very desirable that the subject of that kind of strikes should be considered and discussed. If laws, such as here suggested, could be passed, such calamities as our country has suffered this summer might be prevented, which certainly would be a consummation devoutly to be wished.

LABOR'S CLAIMS AND METHODS.

BY VICTOR YARROS.

The recent labor disturbances have demonstrated two things: first, that labor, although profoundly dissatisfied with its place and status in the present industrial order, has the vaguest and most nebulous ideas regarding the changes that it would introduce with the view of securing greater independence and comfort. The labor leaders, when forced to definite statements, generally hint at collectivism or State socialism. Among

the provisional remedies that some of them suggest compulsory arbitration is perhaps the most prominent, but it is clear that arbitrators would be at sea in the absence of any guiding principles determining the relations between capital and labor. Still, the want of a constructive platform does not operate as a bar to rebellious demonstrations against the prevailing arrangements. Though it does not know even approximately what it wants, labor is emphatic in telling us what it does not want. And here we come to the second thing which recent events have established beyond peradventure,—namely, that labor claims the right to express its condemnation of the present industrial relations in certain ways which not only the public at large, but many of our leading thinkers and publicists as well, regard as reprehensible, anti-social, and subversive of all law and justice.[1]

The methods employed by organised labor in controversies with employers are well known: they comprise strikes, boycotts, tie-ups, and threats. Violence has not infrequently been resorted to, but nobody has ever claimed the *right* to use violence, and hence no discussion is needful upon this point. Violence may be instigated by despair, but it is not soberly suggested as a legitimate means of warfare by any representative of labor.

Now the public and the thinkers who condemn the methods just specified reveal a strange confusion of mind and an inability to draw proper corollaries from clear and established principles. Labor is right. The methods it employs are entirely legitimate, and, far from threatening the total destruction of society and order, labor, in asserting its right to employ those methods, upholds the first principles of social life and is entitled to the warm support and sympathy of all justice-loving and fair-minded men.

Let us briefly analyse labor's claims from the standpoint of justice and equal liberty. We need postulate nothing but the right of each to do anything that is not incompatible with the full enjoyment of the same freedom by all others. As believers in free contract, let us inquire where labor's right to make its own terms ends.

Has a workman the right to strike—to leave the service of his employer? Even legalism now fully recognises this right, the only limitation prescribed by it being such as the common law and common sense abundantly justify. This qualification is well stated in a New York newspaper thus:

"An engineer may lawfully leave the service of a railroad company, but if he choose to leave at a time when the abandonment of his post would lead to a fatal collision, he would be extremely liable to indictment for murder. So a hod-carrier is at liberty to strike for higher wages if he likes, by giving up his present job; but he must not give it up when he has a hodful of bricks on a ladder high above the sidewalk, and let the bricks come tumbling down on the heads of the people who happen to be underneath."

Where the law is nebulous and confused is in the matter of "a conspiracy to strike." May a large number of men combine or conspire to strike with the object of injuring the employer by this cessation of work and thereby forcing him to grant certain demands? The recent decision of the Federal Court of Appeals is doubtless a gratifying advance upon the notions of Judge Jenkins, but it certainly leaves much to be desired. It is lawful, under this ruling, to so quit service as to cripple property or hinder operations, but it is not lawful to combine and conspire to quit service *with the object* of crippling any property. In other words: a thousand employees come together, confer, discuss grievances, and resolve to strike; this is legal, despite their full knowledge that injury to the employer will result from their sudden cessation of work (since they may select a time when the employer can least afford to interrupt production). The employees are simply asserting a fundamental right; the injury to the employer is incidental and one which they need not trouble themselves about. But suppose a thousand employees come together and say: "Let us strike in order to cripple the property of our employer;" is that legal? The only difference between the two cases is that in the latter there is an *intent* to injure. If the Circuit Court of Appeals were logical, it would draw no distinction between the two cases and hold them both legal. Interpreters differ about the real significance of the decision, but there can be no question as to the verdict of morals, of justice. It is perfectly proper and moral to "so quit service as to cripple property" *provided the property is crippled by the quitting* and not by violence or threats of violence. Whether the would-be strikers conspire to injure their employer or not, is wholly immaterial; the question is—*how* do they propose to injure him? If by doing something in itself wrong,—violence, threats, etc.,—then they are guilty of invasive conduct. If, however, the injury is to be the result of acts which they have an unquestionable right to perform, such as quitting work, it does not make it a crime for them to commit the act to *avow* an intention to inflict injury *by* this innocent act.

With regard to strikes, then, the view here contended for is that bodies of men may conspire to quit service with the intent to cripple property *by* such quitting. It is not criminal to injure, or to conspire to injure, anybody; it is only criminal to injure, and to conspire to injure, in *certain ways*,—in ways involving violence and threats of violence.

[1] Dr. von Holst, in the *Journal of Political Economy*, recently endeavored to prove that the claims and methods of such labor leaders as Mr. Debs, Mr. Gompers, and Mr. Sovereign are essentially revolutionary and incompatible with orderly government. He accuses organised labor of having "unfurled the banner of anarchy."

What is true of strikes generally, is manifestly true of "sympathetic strikes" in particular. Such strikes may not be wise, but they are not immoral. A man has as much right to strike out of sympathy with another man as he has out of egoistic motives.

But how about the morality of boycotting? Is it right for a man or a body of men to boycott, and to persuade others to boycott, a certain employer or combination of employers? The law is not clear on the subject, and many American editors and ministers have denounced the boycott as a vicious foreignism scarcely less revolting than bomb-throwing. This, however, is a blunder due to ignorance of the nature of invasion. Boycotting means refusing to deal or associate with a given individual. Now it is not an aggression for a man to decline to buy his provisions of this or that dealer; he cannot be stopped by the ignored dealer and called upon to give his reasons for preferring to do business with another dealer. A man has a right to choose his dealers, friends, and acquaintances, and to be governed by mere whims in his choice. It is not unjust for a workman, or a body of workmen, to say to a merchant or manufacturer: "You employ non-union men; we want all labor to be organised, and we want you to help us in this. If you refuse, we shall withdraw our *favor*, our patronage, from you (for it *is* a favor), and confer it on your competitors who are more friendly to us." Such a course is not invasive, invasion being active interference with another's rightful activity, and boycotting being essentially passive. Moreover, the would-be boycotters may publish appeals and attempt to induce, by argument and persuasion, their sympathisers throughout the country to join them in boycotting their opponent, and the persons appealed to may respond favorably and join in the boycott. None of these different classes of persons are guilty of aggression. What they do they have a right to do; what they refuse to do, they are under no obligation to do. In short, all peaceable boycotting is moral and should be legal. It *is* legal under the English law, since the passage of the act which provides that nothing which is not criminal when done by one man, shall be deemed criminal when performed by a combination of men. The American law on the subject is not settled, but to deny the legitimacy of peaceable boycotting is to traverse the fundamental principles of free society.

When, therefore, the American Railway Union, out of sympathy with strikers, instituted a boycott of Pullman cars, and appealed to all organised labor to support it, no wrong, no aggression, was committed. The aggression was in the violence used to *compel* boycotting.

But are "tie-ups" invasive? Is it right for the organised bodies of labor throughout the country to inaugurate a "general strike" as a means of enforcing certain demands? It is, unquestionably. If striking is not criminal, the agreement of a million or more men to strike together on a certain day, cannot possibly be criminal. True, a general strike or tie-up means industrial paralysis, complete social stagnation, but this result is incidental to an assertion of an inalienable right,—the right to free contract and free industry,—and hence, paradoxical and revolutionary as may be the *sound* of the phrase, it is nevertheless absolutely and strictly true that organised labor has a perfect right to "paralyse all industry and commerce,"—great as may be the suffering entailed upon the innocent public,—by such a general tie-up as labor leaders have been threatening. The workmen *as* workmen are not under any obligation to consider the interests of third parties. They deal with their employers, and they have the right to fix their own terms,—the price of their services. If the employers refuse to pay the price demanded, the workmen may decline the offer of employment. To say that they must continue in the employment because a general strike causes great hardship to the public, is logically to imply that even if employers decline to pay any wages at all, the workmen may not quit their employment. What may seem an injury to the public is really, and, in the long run, a great advantage to it, for the maintenance of freedom is the supreme need and task.

When labor threatens to paralyse society and industry, it does not necessarily threaten to commit a crime. The *how*, the question of the *method* and manner, is the all-important one. *How* does labor propose to carry out its threat? If by violence, direct coercion, then it contemplates crime, and should be suppressed; but if it restricts itself to passive means, to cessation of work and boycotting, government may not rightfully interfere. Whether the threats and acts of labor are invasive or not, depends, not on the results of the acts, but on the methods employed. Injury is no test of aggression, since injury frequently follows acts of undoubted legitimacy.

We thus arrive at the conclusion that organised workmen have a perfect right to strike, boycott, "tie-up" industries, and even paralyse all commerce and production, provided they do not resort to violence and trespass upon person or property. "Hardship to the public" does not justify the State's interference; orders restraining peaceable strikes or boycotts are violations of fundamental rights.

It may be said that it is utterly impossible to paralyse industry by peaceable strikes. That, however, is a different question. The right to make the attempt is what has been argued.

Some writers condemn labor organisations on the ground that they are trusts and conspiracies main-

tained for the purpose of enhancing prices and controlling production. For those who favor the prohibition of capitalists' trusts and combinations, it is logical to insist upon legislative measures against labor trusts. But from the standpoint of the principles here defended, all legislation against any trusts and combinations of capital or labor is indefensible and immoral. Competition is not a duty, but a right. Capitalists are no more obliged, ethically, to compete among themselves than laborers are. Both capitalists and laborers have the right to combine and fix prices, amount of production, etc. The outcry against trusts is based on notions inconsistent with industrial freedom. All that the public can demand is a condition under which competition is possible for those who desire to compete. That is to say, legislation must not establish any monopolies and "protect" any special class from the influence of competition. A free field once secured, the contending parties may come together and agree to work in harmony.

A great deal of evil doubtless results from the operation of existing trusts and combinations, but the remedy is to be found, not in the suppression of the trusts by law, but in the abolition of those conditions which arm the trusts with power which they should not possess and which they could not possess under freedom of competition. It is protection by special legislation that makes the trusts so dangerous and powerful. In the principle of the trust there is nothing inherently mischievous. Capital has a perfect right to organise, lock-out, tie-up, and paralyse all labor by suspending operations; the capitalists are not in duty bound to employ labor or to supply the public with wares. Labor has the right to combine, boycott, tie-up, and paralyse capital by refusing to work, since it is not obliged to sell itself to capital or to take care of the public. But neither has the right to use force and to violate equal liberty, and neither is entitled to special privileges and monopolies. If the State wishes to enforce equality of freedom, let it refrain from interfering with conduct not inconsistent with equal freedom, and from enacting positive legislation which, by its injustice, breeds aggression and war.

ON THE RELATIVE EDUCATIONAL WORTH OF THE CLASSICS AND THE MATHEMATICO-PHYSICAL SCIENCES IN COLLEGES AND HIGH SCHOOLS.

BY PROF. ERNST MACH.

II.

Of the lamentable conditions produced by the common method of teaching the classics, we spoke in the preceding article.

This must be changed. It is possible to get acquainted with the views of the Greeks and Romans by a shorter road than by the intellect deadening process of eight or ten years of declining, conjugating, analysing, and extemporisation. There are to-day plenty of educated persons who have acquired through good translations vivider, clearer, and more just views of classical antiquity than the graduates of our gymnasiums and colleges.[1]

For us moderns, the Greeks and the Romans are simply two objects of archæological and historical research like all others. If we put them before our youth in fresh and living pictures, and not merely in words and syllables, the effect will be assured. We derive a totally different enjoyment from the Greeks when we approach them after a study of the results of modern research in the history of civilisation. We read many a chapter of Herodotus differently when we attack his works equipped with a knowledge of natural science, and with information about the stone age and the lake-dwellers. What our classical institutions *pretend* to give can and actually will be given to our youth with much more fruitful results by competent *historical* instruction, which must supply, not names and numbers alone, nor the mere history of dynasties and wars, but be in every sense of the word a true history of civilisation.

The view still widely prevails that all "higher, ideal culture," all extension of our view of the world, is acquired by philological and in a lesser degree by historical studies; still, that the mathematics and natural sciences should not be neglected on account of their usefulness. This is an opinion to which I must refuse my assent. It were strange if man could learn more, could draw more intellectual nourishment, from the shards of a few old broken jugs, from inscribed stones, or yellow parchments, than from all the rest of nature. True, man is man's first concern, but he is not his sole concern.

In ceasing to regard man as the centre of the world; in discovering that the earth is a top whirled about the sun, which speeds off with it into infinite space; in finding that in the fixed stars the same elements exist as on earth; in meeting everywhere the same processes of which the life of man is merely a vanishingly small part—in such things, too, is a widening of our view of the world, and edification, and poetry. There are here perhaps grander and more significant facts than the bellowing of the wounded Aries, or the charming island of Calypso, or the ocean-stream engirdling the earth. He only should speak of the relative value of these two domains of thought, of their poetry, who knows both.

The "utility" of physical science is, in a measure,

[1] I would not for a moment contend that we derive exactly the same profit from a Greek author by reading him in a translation instead of in the original; but the difference, the excess of gain in the second case, appears to me, and probably will to most men who are not professional philologists, to be too dearly bought with the expenditure of eight years of valuable time.

merely a *collateral* product of that flight of the intellect which produced science. No one, however, should underrate the utility of science who has shared in the realisation by modern industrial art of the Oriental world of fables, much less one upon whom those treasures have been poured, as it were, from the fourth dimension, without his aid or understanding.

Nor may we believe that science is useful only to the practical man. Its influence permeates all our affairs, our whole life; everywhere its ideas are decisive. How differently will the jurist, the legislator, or the political economist think, who knows, for example, that a square mile of the most fertile land can support with the solar heat annually consumed only a definite number of human beings, which no art or science can increase. Many economical theories, which open new air-paths of progress, air-paths in the literal sense of the word, would be made impossible by such knowledge.

The eulogists of classical education love to emphasise the cultivation of taste which comes from employment with the ancient models. I candidly confess that there is something absolutely revolting in this to me. To form taste, then, our youths must sacrifice ten years of their life! Luxury takes precedence over necessity. Have the future generations, in the face of the difficult problems, the great social questions, which they must meet, and that with strengthened mind and heart, no more important duties to fulfil than these?

But let us assume that this end were desirable. Can taste be formed by rules and precepts? Do not ideals of beauty change? Is it not a stupendous absurdity to force one's self artificially to admire things which, with all their historical interest, with all their beauty in individual points, are for the most part foreign to the rest of our thoughts and feelings, provided we have such of *our own*. A nation that is truly such, has its own taste and will not go to others for it. And every individual perfect man has his own taste.[1]

And what, after all, does this cultivation of taste consist in? In the acquisition of the personal literary style of a few select authors! What should we think of a people that would force its youth a thousand years from now, by years of practice, to master the tortuous or bombastic style of some successful lawyer or politician of to-day? Should we not justly accuse them of a woful lack of taste?

The evil effects of this imagined cultivation of the taste find expression often enough. The young *savant* who regards the composition of a scientific essay as a rhetorical exercise instead of a simple and unadorned presentation of the facts and the truth, still sits unconsciously on the school-bench, and still unwittingly represents the point of view of the Romans, by whom the elaboration of speeches was regarded as a serious scientific (!) employment.

Far be it from me to underrate the value of the development of the instinct of speech and of the increased comprehension of our own language which comes from philological studies. By the study of a foreign language, especially of one which differs widely from ours, the signs and forms of words are first clearly distinguished from the thoughts which they express. Words of the closest possible correspondence in different languages never coincide absolutely with the ideas they stand for, but place in relief slightly different aspects of the same thing, and by the study of language the attention is directed to these shades of difference. But it would be far from admissible to contend that the study of Latin and Greek is the most fruitful and natural, let alone the *only*, means of attaining this end. Any one who will give himself the pleasure of a few hours' companionship with a Chinese grammar; who will seek to make clear to himself the mode of speech and thought of a people who never advanced as far as the analysis of articulate sounds, but stopped at the analysis of syllables, to whom our alphabetical characters, therefore, are an inexplicable puzzle, and who express all their rich and profound thoughts by means of a few syllables with variable emphasis and position, —such a person, perhaps, will acquire new, and extremely elucidative ideas upon the relation of language and thought. But should our children, therefore, study Chinese? Certainly not. No more, then, should they be burdened with Latin, at least in the measure they are.

It is a beautiful achievement to reproduce a Latin thought in a modern language with the maximum fidelity of meaning and expression—for the *translator*. Moreover, we shall be very grateful to the translator for his performance. But to demand this feat of every educated man, without consideration of the sacrifice of time and labor which it entails, is unreasonable. And for this very reason, as classical teachers admit, that ideal is never perfectly attained, except in rare cases with scholars possessed of special talents and great industry. Without slurring, therefore, the high importance of the study of the ancient languages as a

[1] "The temptation," Judge Hartwich writes, "to regard the 'taste' of the "ancients as so lofty and unsurpassable appears to me to have its chief origin "in the fact that the ancients were unexcelled in the representation of the "nude. First, by their unremitting care of the human body they produced "splendid models; and secondly, in their gymnasiums and in their athletic "games they had these models constantly before their eyes. No wonder, then, "that their statues still excite our admiration! For the form, the ideal of the "human body has not changed in the course of the centuries. But with intel-"lectual matters it is totally different; they change from century to century, "nay, from decennium to decennium. It is very natural now, that people "should unconsciously apply what is thus so easily seen, namely, the works of "sculpture, as a universal criterion of the highly developed tastes of the an-"cients—a fallacy against which people cannot, in my judgment, be too strongly "warned."

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profession, we may still feel sure that the instinct for speech which is part of every liberal education can, and must, be acquired in a different way. Should we, indeed, be forever lost if the Greeks had not lived before us?

The fact is, we must carry our demands further than the representatives of classical philology. We must ask of every educated man a fair scientific conception of the nature and value of language, of the formation of language, of the alteration of the meaning of roots, of the degeneration of fixed forms of speech to grammatical forms, in brief, of all the main results of modern comparative philology. We should judge that this were attainable by a careful study of our mother tongue and of the languages next allied to it, and subsequently of the more ancient tongues from which the former are derived. If any one object that this is too difficult and entails too much labor, I should advise such a person to place side by side an English, Dutch, Danish, Swedish, and German Bible, and to compare a few lines of them; he would be amazed at the multitude of suggestions that offer themselves.[1] In fact, I believe that a really progressive, fruitful, rational, and instructive study of languages can be conducted only on this plan. Many of my audience will remember, perhaps, the bright and encouraging effect, like that of a ray of sunlight on a gloomy day, which the meagre and furtive remarks on comparative philology in Curtius's Greek grammar wrought in that barren and lifeless desert of verbal quibbles.

The principal result obtained by the present method of studying the ancient languages is that which comes from the student's employment with their complicated grammars. It consists in the sharpening of the attention and in the exercise of the judgment by the practice of subsuming special cases under general rules, and of distinguishing between different cases. Obviously, the same result may be reached by many other methods; for example, by difficult games of cards. Every science, the mathematics and the physical sciences included, accomplish as much, if not more, in this disciplining of the judgment. In addition, the matter treated by those sciences has a much higher intrinsic interest for young people, and so engages spontaneously their attention; while on the other hand they are elucidative and useful in other directions in which grammar can accomplish nothing.

Who cares, so far as the matter of it is concerned, whether we say *hominum* or *hominorum* in the genitive plural, interesting as the fact may be for the philologist? And who would dispute that the intellectual necessity of causal insight is awakened not by grammar but by the natural sciences?

It is not our intention, therefore, to gainsay in the least the good influence which the study of Latin and Greek grammar *also* exercises on the sharpening of the judgment. In so far as the study of words as such must greatly promote lucidity and accuracy of expression, in so far as Latin and Greek are not yet wholly indispensable to many branches of knowledge, we willingly concede to them a place in our schools, but would demand that the disproportionate amount of time allotted to them, wrongly withdrawn from other useful studies, should be considerably curtailed. That in the end Latin and Greek will not be employed as the universal means of education, we are fully convinced. They will be relegated to the closet of the scholar or professional philologist, and gradually make way for the modern languages and the modern science of language.

Long ago Locke reduced to their proper limits the exaggerated notions which obtained of the close connexion of thought and speech, of logic and grammar, and recent investigators have established on still surer foundations his views. How little a complicated grammar is necessary for expressing delicate shades of thought is demonstrated by the Italians and French, who, although they have almost totally discarded the grammatical redundancies of the Romans, are yet not surpassed by the latter in accuracy of thought, and whose poetical, but especially whose scientific literature, as no one will dispute, can bear favorable comparison with the Romans.

[1] English: "In the beginning God created the heaven and the earth. "And the earth was without form and void; and darkness was upon the face "of the deep. And the spirit of God moved upon the face of the waters."—Dutch: "In het begin schiep God den hemel en de aarde. De aarde nu was "woest en ledig, en duisternis was op den afgrond; en de Geest Gods zwefde "op de wateren."—Danish: "I Begyndelsen skabte Gud Himmelen og Jorden. Og Jorden var ode og tom, og der var morkt ovenover Afgrunden, og "Guds Aand svoevede ovenover Vandene."—Swedish: "I begynnelsen skapade Gud Himmel och Jord. Och Jorden war öde och tom, och mörker war "pă djupet, och Gods Ande swäfde öfwer wattnet."—German: "Am Anfang "schuf Gott Himmel und Erde. Und die Erde war wüst und leer, und es war "finster auf der Tiefe; und der Geist Gottes schwebte auf dem Wasser."

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ON THE RELATIVE EDUCATIONAL VALUE OF THE CLASSICS AND THE MATHEMATICO-PHYSICAL SCIENCES IN COLLEGES AND HIGH SCHOOLS.

BY PROF. ERNST MACH.

[CONCLUDED.]

While considering the study of languages we threw a few side glances on mathematics and the natural sciences. Let us now inquire whether these, as branches of study, cannot accomplish much that is to be attained in no other way. I shall meet with no contradiction when I say that without at least an elementary mathematical and scientific education a man remains a total stranger in the world in which he lives, a stranger in the civilisation of the time that bears him. Whatever he meets in nature, or in the industrial world, either does not appeal to him at all, from his having neither eye nor ear for it, or it speaks to him in a totally unintelligible language.

A real understanding of the world and its civilisation, however, is not the only result of the study of mathematics and the physical sciences. Much more essential for the preparatory school is the *formal* cultivation which comes from these studies, the strengthening of the reason and the judgment, the exercise of the imagination. Mathematics, physics, chemistry, and the so-called descriptive sciences are so much alike in this respect, that, excepting a few points, we need not separate them in our discussion.

Logical sequence and continuity of ideas, so necessary for fruitful thought, are the results *par excellence* of mathematics; the ability to follow facts with thoughts, that is, to observe or collect experiences, is chiefly developed by the natural sciences. Whether we notice that the sides and the angles of a triangle are connected in a definite way, that an equilateral triangle possesses certain definite properties of symmetry, or whether we notice the deflexion of a magnetic needle by an electric current, the dissolution of zinc in diluted sulphuric acid, whether we remark that the wings of a butterfly are slightly colored on the under, and the fore-wings of the moth on the upper, surface: indiscriminately here we proceed from *observations*, from individual acts of immediate intuitive knowledge. The field of observations is more restricted and lies closer at hand in mathematics; it is more varied and broader but more difficult to compass in the natural sciences. The essential thing, however, is for the student to learn to make observations in all these fields. The philosophical question whether our acts of knowledge in mathematics are of a special kind is here of no importance for us. It is true, of course, that the observation can be practised by languages also. But no one, surely, will dispute, that the concrete, living pictures presented in the fields just mentioned possess different and more powerful attractions for the mind of the youth than the abstract and hazy figures which language offers, and on which the attention is certainly not so spontaneously bestowed, nor with such good results.[1]

Observation having revealed the different properties of a given geometrical or physical object, it is discovered that in many cases these properties *depend* in some way upon one another. This interdependence of properties (say that of equal sides and equal angles at the base of a triangle, the relation of pressure to motion,) is nowhere so distinctly marked, nowhere is the necessity and permanency of the interdependence so plainly noticeable, as in the fields mentioned. Hence the continuity and logical consequence of the ideas which we acquire in those fields. The relative simplicity and perspicuity of geometrical and physical relations supply here the conditions of natural and easy progress. Relations of equal simplicity are not met with in the fields which the study of language opens up. Many of you, doubtless, have often wondered at the little respect for the notions of cause and effect and their connexion that is sometimes found among professed representatives of the classical studies. The explanation is probably to be sought in the fact that the analogous relation of motive and action familiar to them from their studies, presents nothing like the clear simplicity and determinateness that the relation of cause and effect does.

That perfect mental grasp of all possible cases, that economical order and organic union of the thoughts which comes from it, which has grown for every one who has ever tasted it a permanent need which he

[1] Compare Herzen's excellent remarks, *De l'enseignement secondaire dans la suisse romande*. Lausanne, 1886.

seeks to satisfy in every new field, can be developed only by employment with the relative simplicity of mathematical and scientific investigations.

When a set of facts comes into apparent conflict with another set of facts, and a problem is presented, its solution ordinarily consists in a more refined distinction or in a more extended view of the facts, as may be aptly illustrated by Newton's solution of the problem of dispersion. When a new mathematical or scientific fact is *demonstrated*, or *explained*, such demonstration rests again simply upon showing the connexion of the new fact with the facts already known; for example, that the radius of a circle can be laid off as chord exactly six times in the circle is explained or proved by dividing the regular hexagon inscribed in the circle into equilateral triangles. That the quantity of heat developed in a second in a wire conveying an electric current is quadrupled on the doubling of the strength of the current, we explain from the doubling of the fall of the potential due to the doubling of the current's intensity, as also from the doubling of the quantity flowing through, in a word, from the quadrupling of the work done. In point of principle, explanation and direct proof do not differ much.

He who solves scientifically a geometrical, physical, or technical problem, easily remarks that his procedure is a methodical *mental* quest, rendered possible by the economical order of the province—a simplified purposeful quest as contrasted with unmethodical, unscientific guess-work. The geometer, for example, who has to construct a circle touching two given straight lines, casts his eye over the relations of symmetry of the desired construction, and seeks the centre of his circle solely in the line of symmetry of the two straight lines. The person who wants a triangle of which two angles and the sum of the sides are given, grasps in his mind the determinateness of the form of this triangle and restricts his search for it to a certain group of triangles of the *same form*. Under very different circumstances, therefore, the simplicity, the intellectual perviousness, of the subject-matter of mathematics and natural science is felt, and promotes both the discipline and self-confidence of the reason.

Unquestionably, much more will be attained by instruction in the mathematics and the natural sciences than now is, when more natural methods are adopted. One point of importance here is that young students should not be spoiled by premature abstraction, but should be made acquainted with their material from living pictures of it before they are made to work with it by purely ratiocinative methods. A good stock of geometrical experience could be obtained, for example, from geometrical drawing and from the practical construction of models. In the place of the unfruitful method of Euclid, which is only fit for special, restricted uses, a broader and more conscious method must be adopted, as Hankel has pointed out.[1] Then, if, on reviewing geometry, and after it presents no substantial difficulties, the more general points of view, the principles of scientific method are placed in relief and brought to consciousness, as Von Nagel,[2] J. K. Becker,[3] Mann,[4] and others have well done, fruitful results will be surely attained. In the same way, the subject-matter of the natural sciences should be made familiar by pictures and experiment before a profounder and reasoned grasp of these subjects is attempted. Here the emphasis of the more general points of view is to be postponed.

Before my present audience it would be superfluous for me to contend further that mathematics and natural science are justified constituents of a sound education,—a claim that even philologists, after some resistance, have conceded. Here I may count upon assent when I say that mathematics and the natural sciences pursued alone as means of instruction yield a richer education in matter and form, a more general education, an education better adapted to the needs and spirit of the time,—than the philological branches pursued alone would yield.

But how shall this idea be realised in the curricula of our intermediate educational institutions? It is unquestionable in my mind that the German *Realschulen* and *Realgymnasien*, where the exclusive classical course is for the most part replaced by mathematics, science, and modern languages, give the *average* man a more timely education than the gymnasium proper, although they are not yet regarded as fit preparatory schools for future theologians and professional philologists. The German gymnasiums are too one-sided. With these the first changes are to be made; of these alone we shall speak here. Possibly a *single* preparatory school, suitably planned, might serve all purposes.

Shall we, then, in our gymnasiums fill out the hours of study which stand at our disposal, or are still to be wrested from the classicists, with as great and as varied a quantity of mathematical and scientific matter as possible? Expect no such propositions from me. No one will suggest such a course who has himself been actively engaged in scientific thought. Thoughts can be awakened and fructified as a field is fructified by sunshine and rain. But thoughts cannot be juggled out and worried out by heaping up materials and the hours of instruction, nor by any sort of precepts: they must grow naturally of their own free accord. Furthermore, thoughts cannot be accumulated beyond a certain limit in a single head, any more than the produce of a field can be increased beyond all limits.

1 *Geschichte der Mathematik*, Leipsic, 1874.

2 *Geometrische Analyse*, Ulm, 1886.

3 In his text-books of elementary mathematics.

4 *Abhandlungen aus dem Gebiete der Mathematik*, Würzburg, 1883.

I believe that the amount of matter necessary for a useful education, such as should be offered to *all* the pupils of a preparatory school, is very small. If I had the requisite influence, I should, in all composure, and with the conviction of doing what was best, first greatly curtail in the lower classes the amount of matter in both the classical and the scientific courses; I should cut down considerably the number of the school hours and the work done outside the school. I am not with many teachers of opinion that ten hours work a day for a child is not too much. I am convinced that the mature men who offer this advice so lightly are themselves unable to give their attention successfully for as long a time to any subject that is new to them, (for example, to elementary mathematics or physics,) and I would ask every one who thinks the contrary to make the experiment upon himself. Learning and teaching are not routine office-work that can be kept up mechanically for any length of time. But even such work tires in the end. If our young men are not to enter the universities with blunted and impoverished minds, if they are not to leave in the preparatory schools their vital energy, which they should there gather, great changes must be made. Waiving the injurious effects of overwork upon the body, the consequences of it for the mind seem to me really dreadful.

I know nothing more terrible than the poor creatures who have learned too much. Instead of that sound powerful judgment which would probably have grown up if they had learned nothing, their thoughts creep timidly and hypnotically after words, principles, and formulæ, constantly by the same paths. What they have acquired is a spider's web of thoughts too weak to furnish sure supports, but complicated enough to produce confusion.

But how shall better methods of mathematical and scientific education be combined with the decrease of the subject matter of instruction? I think, by abandoning systematic instruction altogether, at least in so far as that is required of *all* young pupils. I see no necessity whatever that the graduates of our high schools and preparatory schools should be little philologists, and at the same time little mathematicians, physicists, and botanists; in fact, I do not see the possibility of such a result. I see in the endeavor to attain this result, in which every instructor seeks for his own branch a place apart from the others, the main mistake of our whole system. I should be satisfied if every young student could come into living contact with and pursue to their ultimate logical consequences merely a *few* mathematical or scientific discoveries. Such instruction would be mainly and naturally associated with selections from the great scientific classics. A few powerful and lucid ideas could be thus made to take root in the mind and be thoroughly worked out. This accomplished, our youth would make a different showing from what they do to-day.[1]

With John Karl Becker I am of opinion that the the utility and amount for individuals of every study should be precisely determined. All that exceeds this amount should be unconditionally banished from the lower classes. With respect to mathematics, Becker,[2] in my judgment, has admirably solved this question.

With respect to the upper classes the demand assumes a different form. Here also the amount of matter obligatory on all pupils ought not to exceed a certain limit. But in the great mass of knowledge that a young man must acquire to-day for his profession it is no longer just that ten years of his youth should be wasted with mere preludes. The upper classes should supply a truly useful preparation for the professions, and should not be modelled upon the wants merely of future lawyers, ministers, and philologists. Again, it would be both foolish and impossible to attempt to prepare the same person properly for all the different professions. In such case the function of the schools would be, as Lichtenburg feared, simply to select the persons best fitted for being drilled, whilst precisely the finest special talents, which do not submit to indiscriminate discipline, would be excluded from the contest. Hence, a certain amount of liberty in the choice of studies must be introduced in the upper classes, by means of which it will be free for every one who is clear about the choice of his profession to devote his chief attention either to the study of the philologico-historical or to that of the mathematico-scientific branches. Then the matter now treated could be retained, and in some branches, perhaps, judiciously extended,[3] without burdening the scholar with many branches or increasing the number of the hours of study. With more homogeneous work the student's capacity for work increases, one part of his labor supporting the other instead of obstructing it. If, however, a young man should subsequently choose a different profession, then it is *his* business to make up what he has lost. No harm certainly will come to society from this change, nor could it be regarded as a misfortune if philologists

[1] My idea here is an appropriate selection of readings from Galileo, Huygens, Newton, etc. The choice is so easily made that there can be no question of difficulties. The contents would be discussed with the students, and the original experiments performed with them. Those scholars alone should receive this instruction in the upper classes who did not look forward to systematical instruction in the physical sciences. I do not make this proposition of reform here for the first time. I have no doubt, moreover, that such radical changes will only be slowly introduced.

[2] *Die Mathematik als Lehrgegenstand des Gymnasiums*, Berlin, 1883.

[3] Wrong as it is to burden future physicians and scientists with Greek for the sake of the theologians and philologists, it would be just as wrong to compel theologians and philologists, on account of the physicians, to study such subjects as analytical geometry. Moreover, I cannot believe that ignorance of analytical geometry would be a serious hindrance to a physician that was otherwise well versed in quantitative thought. No special advantage generally is observable in the graduates of the Austrian gymnasiums, all of whom have studied analytical geometry. [Refers to an a sertion of Dubois-Reymond.]

and lawyers with mathematical educations or physical scientists with classical educations should now and then appear.

The view is now wide-spread that a Latin and Greek education no longer meets the general wants of the times, that a more opportune, a more "liberal" education exists. The phrase, "a liberal education," has been greatly misused. A truly liberal education is unquestionably very rare. The *schools* can hardly offer such; at best they can only bring home to the student the necessity of it. It is, then, his business to acquire, as best he can, a more or less liberal education. It would be very difficult, too, at any one time to give a definition of a "liberal" education which would satisfy every one, still more difficult to give one which would last for a hundred years. The educational ideal, in fact, is greatly different. To one, a knowledge of classical antiquity appears not too dearly bought "with early death." We have no objection to this person, or to those who think like him, pursuing their ideal after their own fashion. But we may certainly protest strongly against the realisation of such ideals on our own children. Another, Plato, for example, puts men ignorant of geometry on the same level with animals.[1] If such narrow views had the magical powers of the sorceress Circe, many a man who perhaps justly thought himself well educated would become conscious of a not very flattering transformation of himself. Let us seek, therefore, in our educational system to meet the wants of the present, and not establish prejudices for the future.

But how does it come, we must ask, that institutions so antiquated as the German gymnasiums could subsist so long in opposition to public opinion? The answer is simple. The schools were first organised by the Church; since the Reformation they have been in the hands of the State. On so large a scale, the plan presents many advantages. Means can be placed at the disposal of education such as no private source, at least in Europe, could furnish. Work can be conducted upon the same plan in many schools, and so experiments made of extensive scope which would be otherwise impossible. A single man with influence and ideas can under such circumstances do great things for the promotion of education.

But the matter has also its reverse aspect. The party in power works for its own interests, uses the schools for its special purposes. Educational competition is excluded, for all successful attempts at improvement are impossible unless undertaken or permitted by the State. By the uniformity of the people's education, a prejudice once in vogue is permanently established. The highest intelligences, the strongest wills cannot overthrow it suddenly. In fact, as everything is adapted to the view in question, a sudden change would be physically impossible. The two classes which virtually hold the reins of power in the State, the jurists and theologians, know only the one-sided, predominantly classical culture which they have acquired in the State schools, and would have this culture alone valued. Others accept this opinion from credulity; others, underestimating their true worth for society, bow before the power of the prevalent opinion; others, again, affect the opinion of the ruling classes even against their better judgment, so as to abide with the latter on the same plane of respect. I will make no charges, but I must confess that the deportment of medical men with respect to the question of the qualification of graduates of your *Realschulen* has frequently made that impression upon me. Let us remember, finally, that an influential statesman, even within the boundaries which the law and public opinion set him, can do serious harm to the cause of education by considering his own one-sided views infallible, and in enforcing them recklessly and inconsiderately—which not only *can* happen, but has, repeatedly happened.[1] The monopoly of education by the State[2] thus assumes in our eyes a somewhat different aspect. And to revert to the question above asked, there is not the slightest doubt that the German gymnasiums in their present form would have ceased to exist long ago if the State had not supported them.

All this must be changed. But the change will not be made of itself, nor without our energetic interference, and it will be made slowly. But the path is marked out for us, the will of the people must acquire and exert upon our school legislation a greater and more powerful influence. Furthermore, the questions at issue must be publicly and candidly discussed that the views of the people may be clarified. All who feel the insufficiency of the exisfing *régime* must combine into a powerful organisation that their views may acquire impressiveness and the opinions of the individual not die away unheard.

I recently read, gentlemen, in an excellent book of travels, that the Chinese speak with unwillingness of politics. Conversations of this sort are usually cut short with the remark that they may bother about such things whose business it is and who are paid for it. Now it seems to me that it is not only the business of the State, but a very serious concern of all of us, how our children shall be educated in the public schools at *our* cost.

[1] Compare M. Cantor, *Geschichte der Mathematik*, Leipsic, 1880, Vol. I, p. 193.

[1] Compare Paulsen, *l. c.*, pp. 607, 688.

[2] It is to be hoped that Americans will jealously guard their schools and universities from the influence of the State.

PRE-EXISTENCE AND IMMORTALITY.

Mr. Louis Prang of Boston, well known to every American that is a lover of art and art-instruction, writes with reference to the article "Immortality and the Buddhist Soul-Conception," as follows:

"Its (viz., the soul's) pre-existence ere we were born? This is a stumbling-block to my comprehension of one of the attributes of *my* "karma." If we consider karma the effluence of the life of man, it becomes his creation—I create my soul, my karma, the immortal part of my existence, how then can my karma have had existence before I was born? I have tried hard to understand your reasoning as set forth in the article "Immortality and the Buddhist Soul-Conception," but so far without success, as you see from my above remarks.

"Karma and its immortality appear to me clear enough and agree fully with my way of thinking, but *that pre-existence* (except looking at it in a broader sense as the soul of all creation and therefore an integral part of the atoms of our organism) remains to me a puzzle.—Again, a philosophy of life which is so very difficult to understand, as H. Dharmapala represents it to be, must be at fault somewhere, it can never lift up the masses of mankind, it will remain a dead letter to them, as it seems to have been the case in the East. Your monism and meliorism has the advantage, therefore, over Buddhism."

Let us analyse our soul, and by so doing we shall learn to understand both its pre-existence and its immortality. We take it for granted here that we can all agree on the definition of soul as the sum of man's sensations, sentiments, thoughts, and volitions as they manifest themselves in his organism.

What is a sensation? It is a feeling of a peculiar kind indicating the presence of a correspondent irritation as its cause. Hardness or a feeling of forcible resistance indicates that our touch is confronted with a strongly cohesive body. A color-sensation reveals to us the figure of a distant object from which light is reflected in a special way. Physiology teaches us that our sensations, which are feelings especially adapted to their various irritations, depend upon the organs of sense, and the organs of sense have been moulded in a long process of evolution. The moner is a mere speck of sentient substance; it possesses neither eyes nor ears. Leaving aside the chemical complexity of living matter, all its parts are homogeneous. But by and by a division of labor takes place. The region of the skin that lies in the direction in which the little creature moves, becomes especially sensitive to light, a fact which is recognised by the development of pigment spots doing the service of primitive eyes. In the course of a further evolution, the pigment spots of the skin recede as if seeking for protection, and soon the small depression thus formed is covered by a watery fluid which by and by assumes the shape of a lense. It would lead us too far here to go over the whole history of the formation of the eye or the other senses, and it would take a specialist to do it well. Suffice it to say, that the various forms of our sense-organs are the continued function of the sense-activities of our ancestors; they are such as they are by virtue of the memory of living substance; and memory is but another name for the immortality of feelings.

The physiological aspect of memory is the preservation of form. Every sense-impression and also every reaction of sentient substance leaves a trace, which, when irritated, revives its correspondent feeling. The form of this trace is preserved in the flux of matter; an amœba, a moner, or a cell grows, and when it divides there are two individuals of the same form. The transmission of the sum-total of functions as they take place in complex organisms through the vehicle of germs is still shrouded in mystery, but there is no reason to doubt the theory that heredity is merely a peculiarly complex preservation of traces; and all organisation is due to the memory of living substance.

Now let us ask, What are thoughts and volitions? They are particularly important soul-structures, for they are peculiar to man and form the determinants of all his activity. A thought is a combination of sentiments expressed in word-symbols. Every sensation has a meaning and words denote abstracts of sensations, or subsume the meanings of many similar sensations in classes. Thoughts are transferred by the transmission of those thought-symbols or words, which, by the designation of the same thing, have acquired the same meaning. Volitions are impulses the aims of which appear clearly represented in ideas, and will is a reaction adapted to ends through the instrumentality of thought: it is purposive motion.

After these preparatory remarks we can proceed to analyse our soul and shall find that it is a combination of innumerable elements partly inherited from former generations at the start of our life, partly acquired by experience and education.

Our soul is not the ego feeling, which finds expression in the sentiment: "It is I who think." The ego-notion is only one soul-structure among many others; and it is of importance only in so far as it occupies a central position. The ego-feeling is in itself an empty thing. It is the same in kings and beggars, in sages and fools, in judges and criminals. The diversity of the various egos is constituted by the character of those other soul-structures with whom in each mind it is connected. The various functional sense-organs and those other soul-structures which constitute our sentiments, thoughts, and volitions are what Buddhists call saṃskâras. They have developed gradually in a slow process of evolution and they are, so to say, the substance of our soul. If soul means a metaphysical agent behind our psychic activity, Buddha denies the existence of the soul. Buddha was the first anti-metaphysician and positivist of whom we know. But if soul means these real facts of glowing

life of which we are conscious, our longings, aspirations, our knowledge, our hates and loves, our ideas and ideals, Buddha tells us that they existed before we were born, and that they will not cease to exist after death. They have been transmitted to us by inheritance and education and we in our turn transmit them with every act we do and with every word we say. Our present life is one link only in an infinite chain of life; and our soul, viz., these peculiar forms of meaning-freighted symbols, of soul-structures, is the reincarnation of former lives; our soul is a résumé of the deeds done by all our ancestors; it is the result of our karma done in previous existences; and we are the continuation of our ancestors as much as every one of to-day is the continuation of his own self of yesterday and of all the days and years before yesterday.

That we are the physical continuation of our physical parents is obvious enough, because we see the material continuity; but we are also the continuation of the mental and moral life of our spiritual parents. When Gautama Siddhârtha had become Buddha, he remained the physical son of Shuddhôdana, but he became the inheritor of the wisdom of his teachers and of all those men from whom he had learned. Buddha visited his father, and was reproached by him for begging:

"'Oh, Mahārāja,' was the reply, 'this is the custom of all our race.'

The king said: "'But we are descended from an illustrious race of warriors, and not one of them has ever begged his bread.'

"'You and your family,' answered Gautama, 'may claim descent from kings; my descent is from the prophets (Buddhas) of old, and they, begging their food, have always lived on alms. But, my father, when a man has found a hidden treasure, it is his duty first to present his father with the most precious of the jewels;' and he accordingly addressed his father on the cardinal tenet of his doctrine."

Buddha claims descent from the prophets of old. Their aspirations have impressed him and continue in his mind. In the same way, Newton is the intellectual son of Copernicus and Kepler, and Laplace is the scion of Newton. Or, to express the same truth in other words: the soul of Copernicus continues to live in Kepler, Newton, and Laplace. Furthermore, the soul of all these scientists resides in every one of us to the extent that our minds have received by study or instruction the gist of their works. Their karma is their soul, and their soul is a living presence in mankind. They did not die, and as long as life lasts on earth they cannot die.

In analysing our soul we find that it is a gathering of living sentiments and thoughts which existed long before we were born. We are the trysting-place of many souls. And this expression is no mere allegory, but a literal truth.

Our present individuality is like a new and perhaps a revised edition of an old book. You cannot say that the book as such began to exist when it came from the press. That which makes the book, its essence and its soul, existed before and has been re-embodied in the second edition.

Even the first editions of books are not creations out of nothing. They are either combinations of thoughts which existed before, or, at best, if they are what we commonly call original, bring older problems and inquiries to a certain consummation.

It is pleasant to think that among the inhabitants of our souls there are many Montagues and Capulets who fought one another in bitter hatred during their lives in the flesh. Now they meet peacefully in their later incarnation in one and the same mind, and perhaps they were not until now capable of reconciliation. The little contentions of merely personal consequence dimmed their comprehension and the veil of Mâyâ was upon their eyes. Now, since all these trivialities have been buried in the grave, their hatred has passed away, their souls have been purified, and their spiteful hostility has changed into friendly contrast.

The main difficulty in understanding the nature of the life of the soul, its past history and future destinies, is the materialism of our views. A man naturally attributes reality to the material feature only, not to the formal and spiritual. We look upon ourselves as a congregation of material atoms, while in fact we are the soul that in this concourse of atoms is formed. The atoms are an indifferent accident. Any other atoms of the same kind would do as well, and, indeed, the atoms which support our nervous life are swiftly and constantly changing. Every new moment of consciousness presupposes new oxygen, and there is not one moment in which the flame of life feeds upon the same material.

The nature of man's being does not depend upon the food he eats, but upon the impressions which, through the sense-organs, are made upon his mind. Evolution is possible only because the souls of our forefathers survive and every generation adds a share to the rich inheritance of the past. We existed in our physical and spiritual ancestors, and according to the exertions we make add to the intellectual wealth which we bequeath to future generations. The bread of the soul is the experiences we make in life, and especially the words of the wise, which implant new soul-structures into our spiritual being. Every example, which by words or deeds you set to your children, and to your friends, and also to your enemies, is a transmission of soul, and it continues to exercise its effects; it is not lost forever, nor writ into water, but remains a factor in the soul-life of your fellows. Your soul is like a seal that has been impressed into you in order to be imprinted by your conduct into the hearts of

others, thus to be duplicated and triplicated and reproduced again and again, so that when you die your soul will live according to your deeds.

So long as we are unable to recognise the pre-existence and continuance after death of our soul, we are still under the illusion of self; we still conceive the soul as a concrete entity, and have not as yet freed our mind from the metaphysics of a materialistic conception of the soul. That kind of a soul whose annihilation we believe we see in death, does not exist; while the true soul, the reality of our spiritual life is not touched by death. Both views are due to the same erroneous ego-soul conception, the Christian dogma that every soul has been created out of nothing, and that it is to continue to live after death as a distinct soul-entity, and also the contention of unbelievers who claim that the soul is utterly annihilated in death and wiped out of existence. The Christian bigot and the infidel have more in common than they are aware of.

A correct conception of the soul and its immortality will make us sober in the vanity fair of the world that surrounds us; it will elevate our aspirations and chasten the yearnings of our hearts; it will teach us to live more wisely and more morally; and practical applicability is always a good test of truth.

Let us remember in the days of our youth that our deeds do not die, but that they will stay with us as good angels or evil demons. Suppose, for instance, a youth has studied mathematics and civil engineering at college; will not the knowledge of his studies remain with him for life? The drudgery of study is transient but its usefulness is permanent. Suppose another, or even perhaps the same youth, indulges in emasculating pleasures, every act of indulgence contributes to forming bad habits, and these habits, too, are a permanent presence in the soul of a man. They continue, and the destiny of a man is in the main the product of his good and evil deeds, of his wise and foolish acts, of his commissions and omissions. But this is not all! When a man dies his actions, in their minute individuality, continue to influence the life of the race. His personality in all its characteristic features is, according to the deeds done by him, preserved in the minds of other men. His soul remains an indelible factor in the souls of the following generations. Our ancestors are dead in the flesh only, they continue to live and their dwelling-place is right here in our souls.

SCIENCE AND REFORM.

A DESPERATE EXPEDIENT.

It is always an ominous sign for the prospects of a doctrine, if its exponents have to resort to sophistry, or that still riskier expedient—an argument founded on entirely spurious premises. The apologists of alcoholic stimulants seem to have been reduced to shifts of the latter kind. "Our love of spirits," says Prof W. T. Freeman, in a contribution to the last number of *The Gentleman's Magazine*, "may simply be a hereditary ancestral habit. *The lower creatures*, as far as I know, *never refrain from alcohol in excess if they can get it. Monkeys are peculiarly fond of arrack and such stuff.*" The two last paragraphs of that statement form, all in all, about the most glaring instance of *an argumentum ad ignorantiam* found in the controversial literature of the nineteenth century. So far from exercising an irresistible attraction on the lower animals of our planet, alcohol is dreaded as an elixir of death even by creatures that feed on poison plants and substances in a state of far-gone decay. There are caterpillars that subsist on poppy-leaves, and maggots that revel in superannuated Limburger; but alcohol in all its more concentrated forms, repels the most unfastidious of parasites, so much so, indeed, that proof-spirits can be used as a reliable antiseptic, to protect organic substances against the microbes that mediate the process of decomposition. A panful of alcohol could be safely exposed in the midst of a tropical forest; no bird or reptile would touch it; wasps would approach it only to turn away with an angry hum; four-footed animals would shrink with horror from the mere scent of the virulent liquid. The story that monkeys can be captured with alcoholic baits has been traced to the fact that they can be fuddled with a mixture of rum and syrup, provided that the saccharine elements predominate sufficiently to disguise the taste of the intoxicant. Pure rum would not attract them any more than unmixed strychnine would lure a wolf to destruction. To while away the tedium of a long voyage, sailors often teach a pet monkey to drink grog, but succeed only by methods similar to those that have turned hundreds of slum-youngsters into topers: they force the struggling teetotaler to swallow dram after dram, till the daily repetition of the dose at last begets an abnormal appetite. In the same way young apes can be afflicted with a passion for cigars, and Prof. W. T. Freeman might just as well try to defend the nicotine habit by assuring the readers of the *Magazine* that "all the lower animals will smoke to excess whenever they can get hold of a pipe."

BIOLOGICAL CURIOSA.

In the great government game-preserve of Byalistock, Russia, several hundred head of Urus cattle have been saved from extinction, and on more than one occasion have contracted family-alliances with their bovine relatives on the neighboring hill-pastures; but the attempts to perpetuate the resulting breed of hybrids have always failed. Now Capt. Charles Goodnight, of Aroyas Station, in northwestern Texas, reports the same experience with his bison-pets. Since 1878 the Captain has raised young buffaloes and tried to cross them with various breeds of domestic cattle, long-horned Mexican bulls and "muley," or hornless, cows. A great variety of curious connecting links of the two species has been the result of these experiments; but not in a single case has the owner of the ranch succeeded in multiplying an isolated herd of his half-bisons. Now, what can be the meaning of these manifold evidences of Nature's disinclination to the perpetuation of hybrids? Does it not suggest a conjecture that the distinct currents of race-tendencies, even in apparently allied species, have been worn very deep in the course of a stupendous series of ages? The six thousand years of the Mosaic Genesis may be a more eggregious underestimate than the geologist of the Dean Buckland type are as yet inclined to admit.

ORIENTAL REALISM.

The Leland Stanford University of the West continues to establish new professorships of defunct Oriental languages—cuneiform text-books and all. The more than princely liberality of the founder may justify such luxuries; but it could do no harm

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to add a chair of Japanese language and literature. Unless the signs of the times are quite misleading, the day is near when the business men of the Pacific Coast will find a knowledge of that idiom quite as useful as a proficiency in the speech of their Spanish-American neighbors.

CONGRATULATIONS IN DISGUISE.

According to a cablegram of the Associated Press, the Hebrews of the Russian Empire have assured the new Czar that they "deeply share his sorrow at the untimely decease of his august predecessor." That message may have emanated from a syndicate of traders who were obliged to fall in line with other corporations, but from any other point of view a lament of the sheep over the fate of a slain wolf could not be much more astonishing. Since the death of Cardinal Ximenes the followers of Moses never had a deadlier enemy, and the exultation of their sudden deliverance may really have prompted the wish to conciliate the good will of their new ruler at any price.

ROSEBERY'S PEACE-OFFERING.

The panegyric of the Prime-Minister of Great Britain is, indeed, much less pardonable. "Alexander the Third," he said, "has consistently preserved the peace, and therefore deserves greater homage than a Cæsar or a Napoleon." Ever since his acknowledgment of a fondness for race-horses the enlightened Premier may have felt the need of a peace-offering on the altar of British bigotry, but the only fit reply to his *apocolocynthesis* would have been Jean Jacques Rousseau's remark that "though the wars of republics may be calamitous, they are far less insupportable than the peace of certain tyrants." The Gods of History have, indeed, made more than one worthless ruler the instrument of their beneficent purposes, but the deification of a brainless and heartless despot should surely require a better foundation than the circumstance that the persecution of his own subjects left him no leisure for foreign wars. The victims of his remorseless bigotry can be counted only by hundreds of thousands, and the travellers over the frozen plains of Poland witnessed scenes more horrible than those of the West Indian Sierras where Las Casas found scores of fugitive plantation-slaves prostrate and silent, or moaning faintly: "Hunger! hunger!" It might be seriously questioned if all the wars of Napoleon and Cæsar taken together caused half as much uncompensated and unremitting misery as the "peace" of Alexander the Third.

A QUESTION OF CANDOR.

Max O'Rell, in his witty comparison of "French and English Immorality," holds that the superior merit of British moralists *versus* French sinners is founded chiefly on the fact that they have learned to guzzle their toddies more inaudibly, and concludes that at bottom no nation is very much better than its neighbors, but "differs merely in its way of showing its virtues and hiding its vices." He might have added that the difference between ancient and modern civilisation could be summed up almost in the same words.

TEMPTING FORTUNE.

One of the contributors to the recent revival of Napoleon-worship notices the curious fact that in all the endless series of his table-talks the exile of Saint Helena avoided every allusion to the career of Frederic the Great. He may have dreaded the comparison of results: The conqueror of Silesia, with all his self-reliance, resembled the prudent gamester that retires with his winning, instead of doubling and doubling his stakes in reliance on the constant favor of Fortune.

JUVENTUS MUNDI RELICS.

The press-correspondents who have visited Livadia at the south end of the Crimean coast-range vie in rapturous descriptions of the scenic contrasts: the towering peaks, the Arcadian foothills, bathed by a blue summer sea; the picturesque location of Grand-Duke Constantine's summer-palace in a grove of majestic old oak-trees—the haunt of countless birds, even at this late season of the year. Yet that oak-grove is only a poor, last relic of the magnificent *sylvania* that once clothed the Mediterranean with all its bays and branch basins, and which a few degrees south of the Crimea must have come very near realising our ideal of an earthly paradise. As compared with their own glorious peninsula, the Crimea seemed so unattractive to the ancient Greeks that they shunned it as an hyperborean wilderness, and the exiled poet Ovid died of homesickness at Tomi, on the shore of the Black Sea.

FELIX L. OSWALD.

NOTES.

We have been requested to insert the following appeal in our columns:

TO THE FRIENDS OF THE FREEDMEN: If our boys and girls will send their old dolls and toys to Mrs. N. A. Rutherford, Lumberton, N. C., they can make a merry Christmas for the freedmen.

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PRESBYTER JOHN.

BY M. D. CONWAY.

It is well known that the last chapter of the fourth Gospel did not belong to the original composition, but at what time it was added is not known. Near the close of this chapter it is related that Peter, looking at the disciple whom Jesus loved, asked, "Lord, what of this man?" Jesus is reported as answering: "If I will that he tarry till I come what is that to thee? Follow thou me." It is added, "This saying therefore went forth among the brethren that that disciple should not die." The writer calls attention to the fact that Jesus did not exactly so say, but he does not deny that the "beloved" disciple was still living. It is a remarkable fact that the name of this disciple nowhere occurs in the Gospel it labels. The compiler leaves us to identify "the disciple whom Jesus loved" for ourselves. I say compiler, for there are indications that different compositions between A. D. 120–150 were fused together by one hand into the fourth Gospel before the twenty-first chapter was added. This compiler, whoever he was,—it is a pity there is no clue to him,—was a Philonian enthusiast, whose aim was to detach the new religion from local and Jewish Messianism and give it a philosophical, mystical, and spiritual character. It will be noted that throughout there is a desire to exalt the "beloved disciple," without naming him; indeed, but for this particular Gospel it might be supposed that if Jesus had any favorite among his disciples it was Peter, to whom he is said to have given the keys of heaven. But here we learn of a disciple who leaned on his breast at supper, and to whom, while dying, he confided his mother, whose son he was to become. Another significant detail is the contrast suggested between the Beloved and the Traitor, into whom, according to this one narrative, Satan enters at the moment when the other is leaning on Jesus's breast at supper. Thus this unnamed Beloved Disciple, promoted to be the adopted son of Mary in the place of her departed son, becomes the Divine in opposition to the adopted son of Satan, Judas. John and Judas become spiritualised as Light and Darkness, miniature Christ and Antichrist, and in later centuries they both reappear in variants of the Wandering Jew legend. For there was in Christian mythology a holy undying one as well as an accursed eternal wanderer.

I will now venture a hypothesis concerning the fourth Gospel. For a generation or two before and after the movement of John the Baptist and Jesus in Jerusalem, and of Philo in Alexandria, it had become a literary trick of religious controversialists to pretend the discovery of one or another ancient book, written by some famous worthy of their race, and containing testimonies to their views. This fashion was set in the book of Daniel, which was followed by books ascribed to Enoch, Elias, and Solomon. Enoch and Elias were supposed, like John, to have never died. (Much in the same way Joe Smith pretended discovery of the book of Mormon, an eternal wanderer, who had found his way into the New World, and awaited the arrival of the whites here, and "the fulness of time" for his revelation.) Now my hypothesis is that the compiler of the fourth Gospel meant to avail himself of the widespread rumor and superstition that "that disciple should not die" to give authenticity to his Gospel. But he utilised it only to a prudent extent. Had he pronounced the Beloved Disciple by name to be John and declared that he was still living, some might have investigated the matter and proved the time and place of John's death. But by not naming John, and by saying that the Beloved had "testified of these things," he safely implied only that John had lived to a great age and had transmitted through some younger follower the most authentic account of Jesus and his teachings. It was using the myth of John's survival as that of Enoch's survival had been used before the birth of Jesus. The writer was thus able to pretend he had obtained through the aged John the sanction of Jesus for his Alexandrian Christian philosophy.

The legend that St. John never died gave birth to another and a mythical John, called the "aged John"—Presbyter John. In mediæval belief, however, Presbyter (i. e. aged) John resumed his earthly immortality as "Prester John." And it is a striking illustration of the tremendous power of a fiction that this forgotten superstition of an undying John not only moulded the Christian consciousness of the world but had much to do with the world's exploration. The

saying that "went forth among the brethren, that that disciple should not die," led to the rumor of the Beloved slumbering at Ephesus, evoked him thence to inspire a Gospel, and created an imaginary successor in Presbyter John, who, as a fabulous Prester John, fascinated the mediæval imagination, and probably led to the discovery of America by Columbus. Prester John was supposed, by reason of his supernatural longevity and sanctity, to have become monarch of the larger part of the world (the unknown part); and so strong was this belief that in the thirteenth century some ingenious romancer, in unconscious imitation of the writer of the fourth Gospel, wrote a letter purporting to be from Presbyter John, which was addressed to various crowned heads and to the Pope (Alexander III.). The following extracts from the letter will convey an idea of the mental condition of the European upper classes to which it appealed. It will be seen that the writer is learned and astute enough to discard the popular appellation "Prester" John, "Presbyter" being more impressive to the Pope.

"I, Presbyter Johannes, the Lord of Lords, surpass all under heaven in virtue, in riches, and in power; seventy-two kings pay us tribute. In the three Indies our Magnificence rules. Our land streams with honey, and is overflowing with milk. In one region grows no poisonous herb, no scorpion exists, nor does any serpent glide in the grass, nor any animal that injures any one. The river Indus, encircling paradise, spreads its arms in manifold windings through the provinces. Here are found emeralds, sapphires, carbuncles, topazes, chrysolites, onyxes, beryls, sardius, and other precious stones. Here grows the plant Arsidos, which, worn by any one, protects him from evil spirits. At the foot of Mount Olympus bubbles up a spring . . . three days' journey from paradise: if any one tastes thrice of this fountain, he will from that day feel no fatigue, and so long as he lives will be as a man of thirty years. Here we found the small stones called Nudiosi, which, borne about the body, prevent the sight from waxing feeble, and restore sight when lost. . . . In a certain plain is a fountain which purges Christians of all transgressions. With us no one lies . . . no vice is tolerated. . . . Over the gable of our palace are two golden apples, in each two carbuncles, so that the gold may shine by day and the carbuncles by night. Before our palace stands a mirror: we look therein and behold all that is taking place in every region subject to our sceptre."

I have quoted from this thirteenth century hoax the passages most likely to interest readers of *The Open Court*, but it was the account of gorgeous treasures which most attracted the adventurers of that time. When Columbus reached the West Indies (whose very name is a relic of "the three Indies" of the above letter) he cared little for the land or natives, but searched long for a mighty prince on a golden throne, who may be easily identified as Presbyter John.

THE ABSOLUTE.

BY HUDOR GENONE.

Some who call themselves atheists deny the existence of an ultimate authority of conduct, and, considered as a bodily being, they are right.

But such people when they do a sum in mental arithmetic admit the incorporeal existence of mathematics. When they analyse a substance they are consenting to the great fact of an overruling chemistry.

Mathematics and chemistry are spirits to be propitiated, if you choose, by sums and equations, analyses and syntheses, and "worshipped" by diligence and devotion, with faith in the spirit of principles, works in the process, and thanksgiving for results.

The sophistry, commonly called a paradox, contained in the fable of Achilles and the tortoise, and in the cissoid of Diocles and the asymptote seems to me transparent enough. The endeavor to solve it rationally is like trying to see with the ears or taste with the eyes.

The answer is true mathematically,—the result can never be. In that case the solution is a function of relation. The answer is also true physically,—the result must be. In that case the solution is a function of action.

Superficially action seems a form of relation; but it is really radically different. Relation is static; action dynamic. Relation is the constancy of rest, or the variant of motion; but action is that which changes relation, which moves or arrests movement.

The "spirit" of relation is accuracy, justice or right. The "spirit" of action is power, whether force or energy, or forces or energies.

But besides these two "spirits" Relation and Action, which are basic, ultimate, and unconditioned in their originality in the universe, is a third—the "spirit" of Volition, which is quite self-evidently neither relation nor action; but that which impels to change of relation, and which whatever its form is essentially motive or will.

I. Relation is that which is;
Its God is I AM.
II. Action is that which does;
Its God is I MAKE.
III. Volition is that which wills;
Its God is I LOVE.

These three are the primal triad of principle; self-existing, without creator or destroyer, without father or mother, or beginning of days or end of life.

IV. And these three are one, for this trinity of principle is essential to unity of being.

V. This Being is spirit, and this spirit is God.

This category, which has the audacity to claim for itself infallibility, may be confounded with that of Spinoza or the speculative rhapsody of Swedenborg ; but after all only Aristotle and Kant approximated to the scientific category, and even they only approximated.

These, and all other thinkers of whose thoughts the writer is aware, have seen visions and dreamed dreams. They have seen the seven hued bow of truth clearly as it appears, but of the reality back of appearances, the simple science of ultimate certainty,—nothing.

Having now the three ultimate principles and being satisfied that they are axiomatic we are prepared to deduce by processes as rigorously logical as those of geometry, problems, and theorems with their corollaries in the domain of the science of religion.

VI. The Union of Relation and Action produces Law.

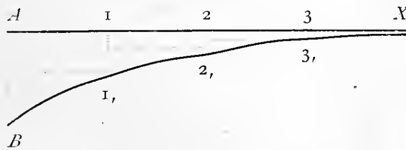
VII. The Union of perfect relation, which is Justice, with perfect action, which is Power, produces perfect Law, which is Wisdom.

VIII. The Union of Relation and Volition produces Character.

IX. The Union of perfect Relation—Justice, with perfect Volition—Love, produces perfect Character—Equity.

X. The Union of Volition and Action produces Nature.

XI. The Union of Love and Power, perfect forms of Volition and Action, produces Life, the perfect form of Nature.



The above diagram of the asymptote may serve to illustrate nature in its threefold departments. First, the Right line, *A X*, inflexible, fixed, rigid, implacaable, having a perceptible location at *A* where we perceive, or conceivable where we conceive, and being prolonged in theory to *X*, supposed to be infinitely distant, representing RELATION. Second, the curve *B X*, so related to the right line as to continually approach it and become tangent at the infinite distance *X*.

As this line changes its direction and therefore relation to the line *A X* at every point, it represents with accuracy ACTION. Third, that region, which is neither rigid being, nor continuous change,—the region of "spirit," of the infinite, of VOLITION, is represented by the continuous effort to reconcile Relation and action ; the constant progression of evolution.

This is the region of the science of religion, the region of the paradox, where the inconceivable is as certain as the inevitable ; where loss is not failure, but success, where, like Columbus, we sail west, confident of finding there our orient.

Politics, economics, ethics, all these and more are practical departments of this realm. These are religion's industrial arts, which can only be carried to perfection when the truth upon which they must be based to make them effectual is recognised as science.

Faith in axioms is the foundation of exact science. Credulity no longer imposes upon thought ; science does not profess beliefs, it states facts.

That which in ourselves we recognise as consciousness is a function of the three absolute existences. We combine in our individual unity the trinity of relation in our being, of action in our energies, and of volition in the motives that move us.

When I discern an eternal principle for each temporal incident ; when I see the accuracy with which all the phases and forms of nature perform their tasks ; when I see how immeasurably more intelligent the "atom" is than I, the conclusion is irresistible that the universe is endowed with more than intelligence.

That consciousness which is fulfilled in all living cannot fail with life itself. There may be no *a* God ; but there is God, and that Being is more than conscious. He is consciousness self.

THE INTRODUCTION OF BUDDHISM INTO JAPAN.

THE Rt. Rev. Shaku Soyen of Japan sent us a short time ago a tastefully bound book, entitled *History of the Empire of Japan*, compiled and translated for the Imperial Japanese Commission of the World's Columbian Exposition, Chicago, U. S. A., 1893. The book is perhaps the only source of Japanese history that is accessible to those not versed in Japanese and Chinese literature. It contains nine chapters, compiled by various Japanese scholars and translated into English by Captain Brindley, editor of the *Japan Mail*. The volume contains a map of Japan, several photogravures of Japanese views, reproductions of ancient pictures of Japanese emperors and reformers, designs of historically important buildings, and various colored prints showing the life and customs of the country. It is to be regretted that there is neither an index nor a table of dates in which a reader whose time is limited might find some preliminary information, and even the Table of Contents is insufficiently arranged. Thus it reminds us of European books, which one has to read through in order to find the various items of interest. The reader must supply the missing table of dates in order to reduce the rich chaotic material to

order. We hope that soon some Japanese historian will fill these deficiencies.

The history of Japan is very interesting on account of the many parallels which it affords with the history of Europe; there is this difference only that there were comparatively more prominent women in Japan, who, like Queen Bess, have accomplished great things for their country. The Japanese had their mediæval times and feudal institutions. The introduction of Buddhism brought to them a higher civilisation from China, as much as Christianity introduced to the barbarians of the North the civilisation of Rome. The universality of Buddhism widened the intellectual horizon of the people, and it conquered their minds, partly by its noble morality and partly through the sword, which some of its adherents were ready to use. The imperial power, although nominally always supreme, was rapidly overshadowed, first, by powerful aristocratic families and then by military leaders. To the former, Japan owes the development of a refined civilisation, of luxuries, of the arts and literature; to the latter, a feudal system of lieges and vassals, quite similar to the feudal system of Europe. Japan had her *major domos* as much as the Franconians at the time of the father of Charlemagne. There were ex-emperors and counter-emperors, civil war between the nobles, internecine strife between brothers and cousins, not unlike the War of the Roses in England. And the historical outcome of these institutions lasted in some shape or other until recent times, when it was abolished by the present emperor, who opened the country to Western civilisation. Japan enjoys now a constitutional government similar to the governments of Europe, and has adopted Western principles for its State administration, education, and the judiciary. Religious liberty has been proclaimed, and modern inventions are utilised to an astonishingly great extent.

We recapitulate here that episode in the history of Japan, which is likely to be most interesting to our readers, "the introduction of Buddhism into Japan." It certainly is the most important fact in the evolution of the nation, as it has not less influenced the character of the Japanese than the introduction of Christianity has moulded the European civilisation.

The history of Japan begins with the Emperor Jimmu, 660 to 585 B. C. He inherited from olden times the three insignia of sovereignty, the jewel, the mirror, and the sword. Fearing that they might be lost or defiled, he had fac-similes made for common use in the throne-room, while the original insignia were deposited in a shrine at Cassanui in Yamato, where one of the imperial princesses was intrusted with the duty of guarding them. Subsequently the sacred objects were removed to the shrine of Isa, where the jewel and the mirror exist still. The sword, however, was transferred to the shrine at Atsuta in Owari, where it still exists. The imitated sword was lost during the civil wars by one of the emperors who, while pursued by his enemies, was shipwrecked and drowned. Jimmu conquered the barbarians of the North and the South, and is still remembered by his people as "the first country-pacifying emperor."

Japan remained in a very primitive state until an expedition to conquer Corea was undertaken by Emperor Chuai. The immediate cause of it was that the Coreans had assisted the Tsukushi rebels. The Emperor died, but his widow, the Empress Jingo, kept her husband's death secret and accomplished the conquest of Corea. She remained regent of Japan after her husband's death from 201 to 270 A. D. Corea having been subject, prior to its conquest by the Empress Jingo, to the Chinese, and having been in contact with them for a long time, the Coreans were quite familiar with Chinese literature, and as communication between Corea and Japan increased, many Coreans settled in Japan, where they became useful as instructors in various trades and in writing. Japanese annals attribute the beginning of Japanese literature to this period; and we are informed that in 218 A. D. a celebrated scholar called Achicki visited Japan and was appointed by the Emperor Ojin tutor to his son Wakairatsuko.[1]

At the suggestion of Achicki, another learned man, named Wani, was invited to settle in Japan; and Wani, it is said, brought with him blacksmiths, weavers, and brewers, as well as ten copies of Lon-yü (the book of arguments) and one copy of Chien-tsa-wen (the book of the thousand characters). Under Wani's instruction the imperial prince acquired a thorough knowledge of these Chinese classics, and this is the first instance on record of teaching Chinese literature in Japan.

The next great event, arising from Japan's connexion with Corea, was the introduction of Buddhism under the reign of Emperor Keitai, 507–531 A.D. There came to Japan from the State of Southern Lian in China a man named Sumatah, who settled in the province of Yamato, and, being a profound believer in Buddha, propagated the doctrines of Buddhism. But the people regarded Buddha as a foreign God, and no one embraced the new religion.

In the year 555 A. D. the King of Kudara in Corea sent an image of Buddha and a copy of the Buddhist Sutras to Japan with the message that the religion of Buddha excelled all other religious beliefs, and that boundless blessing in this world as in the next was in-

[1] According to page 31, the Empress Kogo (on page 80 called Empress Jingo) reigned, as stated on page 41, sixty-nine years, after which time Ojin, her son, succeeded to the throne. Here, on page 43, we are told that Ojin was emperor in the year 218 A. D. We have no means of deciding which statement is the most trustworthy. Similar contradictions, especially in dates, occur in other parts of the book. Frequently empresses are called emperors, which appears to be a misprint or mistake of the translator.

sured to his disciples. Much impressed by this message and the gifts accompanying it, the Emperor was disposed to worship the image, but before doing so he summoned his ministers to debate the advisability of the step. Soga-no-iname, the prime minister, expressed the opinion that as all western nations worshipped Buddha there was no reason why Japan alone should reject his doctrine ; but other ministers of State opposed him, saying, that the Japanese had from the most ancient times worshipped celestial and terrestial deities and that if reverence were paid to an alien deity the wrath of the gods of the land might be provoked. The Emperor approved of the latter view, but it seems that a dim idea of the importance of Buddhism had seized his mind, for he gave the image of Buddha to Iname with the permission to worship it by way of trial. Iname was greatly pleased with the behest, and at once converted his residence into a temple.

Unfortunately the empire was soon afterwards visited by a pestilence which swept away a number of the people, and as the State ministers represented to the sovereign that this was an obvious punishment inflicted by heaven, the temple was burned and the image of Buddha thrown into the water of the canal in Naniwa.

The Emperor, however, did not altogether abandon his preference for the worship of Buddha, and Iname sent secretly to Corea for another image. His son Soga-no-umako who succeeded his father Iname as prime minister, again built temples and pagodas dedicated to Buddha. But again a pestilence visited the country and the sons of the old State ministers again averred that the pestilence must be attributed to the worship of Buddha by the Soga family, the family of the prime minister. An imperial rescript was issued prohibiting the worship of Buddha. All the temples and pagodas dedicated to the foreign god were burned, and the images were again thrown into the canal of Naniwa. But the remedy proved useless ; the people's sufferings were not relieved, and in addition to the old trouble a plague of boils ensued, the pains of which resembled that of burning, and so old and young alike came to the conclusion that they were now the victims of a punishment for burning the shrines of Buddha. Buddhism apparently had already taken a powerful hold upon the popular imagination.

Soga-no-umako applied for and received permission to worship Buddha with his own family; and the Emperor Yomei, on ascending the throne, suffered so much from bodily infirmity that the idea of worshipping Buddha occurred to him. He found so many adherents of the new creed among his ministers that they could easily induce him to suppress all opposition with the sword. Nakotomi Katsumi, a leader of the anti-Buddhist party, was killed, while Prince Shotoku together with Soga-no-umako attacked and conquered the anti-Buddhist party and deprived them of their influence.

Under the reign of the Empress Suiko (191-629 A. D.), the spread of Buddhism was much encouraged by the court. The crown prince, the princess of the blood, and ministers of State had images of Buddha made. In the year 607 A. D. the Empress Suiko sent to China where the Sui dynasty was reigning, to obtain copies of the Sutras, and this was the commencement of the intercourse with China.

The preamble of the dispatch sent on that occasion from the empress of Japan to the sovereign of China was couched in the following words : "The Sovereign of the Empire of the Rising Sun to the Sovereign of the Empire of the Setting Sun, sends greeting." And there is scarcely a doubt that this was the origin of the country's being called Nipon (Japan), which means "land of the rising sun."

Buddhism now began to flourish greatly, and for the purpose of superintendence the offices of Sojo (archbishop) and Sozu (bishop) were established. In the year 627 A. D. there were forty-two temples, eight hundred and sixteen priests, and five hundred and sixty-nine nuns in Japan. And as Buddhism spread, the Confucian philosophy grew by its side.

Buddhism wrought a complete change in the character of the nation. A greater charity and benevolence had seized the minds of the Emperor, of the powerful, and of the rich. It is said that the erudite Emperor Nintoku dwelt for three years in a dilapidated palace in order that his people might have relief from taxation and might know the love his learning had taught him. The prosperity of the nation, his Majesty said, was his own prosperity ; therefore, the poverty of his people must also be his own.

Before the introduction of Buddhism "the people's conception of religion had been of a most rudimentary character.[1] They merely believed that the gods must be revered, relied on, and feared. In their simple faith, they attributed every happy or unhappy event, every fortunate or unfortunate incident, to the volition of the deities ; to whom, therefore, they offered sacrifices that evil might be averted. Thus we find it recorded that when the Emperer Sujin worshipped the gods, a pestilence prevailing throughout the land disappeared and health was restored to the people. The Emperor Chuai, again, failing to comply with the mandate of heaven, died suddenly, whereas the Empress Jingo, obeying it, achieved the conquest of Corea. In a word, the men of olden time believed that the world was governed by deities wielding supernatural powers, and that everything, whether good or evil, emanated from them. This faith inspired the worship that heaven received. It was believed, also,

[1] Quoted literally from the *History of Japan*, pp. 57-59.

that the gods resembled men in appearance and conducted themselves like human beings; out of which faith grew the firmly entertained conception that some men were scions of the deities, and that the deities themselves were of various species. In the highest rank stood the Celestial and Terrestial Gods; in the lowest, certain wild animals and venomous snakes, which were also propitiated by worship. The term *Kami* (god) had many significations. The hair of the head was called kami, as was also the upper part of any object. In later times, the governors of provinces received the same appellation, and the government itself was designated "*Okami.*" In brief, the word was employed to signify anything above or superior. When the Emperor Jimmu reigned, no distinction existed between gods and men; nor did the national conception of a deity undergo any material change after the introduction of the Confucian philosophy, the tenets of which offered no contradiction to the ancient idea. But, although the leading doctrine of Buddha—as, for example, 'Thou shalt do no evil thing,' or 'thou shalt do only that which is good'—marked no departure from the teachings of Confucius, Buddhism told of a past and of a future; announced the doctrine that virtue should be rewarded and vice punished in a future state; and taught that Buddha was the Supreme Being, and that whosoever had faith in him should receive unlimited blessings at his hands. All this differed radically from the pristine creed of the Japanese. They had hitherto held that above all, and to be reverenced and feared exclusively, were the deities and the sovereign. The ruler being regarded as an incarnate god, his commands had received the implicit obedience due to the mandates of heaven. But when the creed of Buddha came, the sovereign, hitherto the object of his subjects' worship, began himself to worship the Supreme Being. Nevertheless, so deeply had the old reverential awe of the deities struck its roots into the heart of the people, that on the first appearance of a pestilence they counted it a punishment of the gods of the land, destroyed the images of Buddha, and burned the places consecrated to his worship. But with fuller knowledge of the Buddhist doctrines, came a growing disposition to embrace them. Only a few years after the rejection of the foreign faith on account of a pestilence, we find the Emperor Bidatsu interpreting the sickness of Umako as a sign that the worship of Buddha must be permitted to that minister, and after the lapse of another brief interval, we have the people themselves inferring that a plague of boils had been ordained by the Buddha. The Emperor Yomei was a devout Buddhist, and in his reign Prince Shotoku, among the princes of the blood, and Soga-no-Umako, among the ministers of the crown, were conspicuous devotees of the faith, while Mononobe Moriya, Nakatomi Katsumi, and other anti-Buddhist leaders, met with violent deaths. Ignorant folks, observing that the sovereign himself, as well as his chief ministers, believed in Buddhism, and seeing the golden images of Buddha, the imposing structures where they were enshrined, the gorgeous paraphernalia of the temples, and the solemnity of the rites performed there, were awed into faith; while the cultured classes were gradually won over by study of the profound and convincing doctrines of the creed. . . .

"The progress of the imported creed was materially hastened by a rescript which the Emperor Suiko issued, inculcating its propagandism. Prince Shotoku also contributed to the movement, for, in 604 A.D., he compiled a constitution of seventeen articles, based on the doctrines of Confucianism and Buddhism. This was the first written law in Japan, but it differed from the laws promulgated in subsequent ages, inasmuch as instructions as well as prohibitions were embodied in its text"; in other words, they were rather religious injunctions than legal ordinances.

The introduction of Buddhism, and the relations established thereby with China, gave a powerful impulse to the civilisation of Japan. Chinese keramists started the idea of art pottery. Swords were forged with great skill. After the conquest of Corea, many workers in metal were imported into Japan, and iron articles of large size began to be manufactured. With the demand for the Buddhist images, the goldsmith's craft made rapid progress. Tanners emigrated to Corea during the reign of Ninken. They settled in the province of Yamato, and dressed hides of all kinds. Later on, Chinese tanners introduced the art of making saddles and various other articles of leather. The manufacture of paper, ink, whetstones, and dies was taught by a Corean priest, in the reign of the Empress Suiko. For the embellishment of Buddhist worship, Prince Shotoku encouraged also the teaching of foreign music. Painting was taught by Chinese artists, who arrived under the reign of Emperor Yuryaku. Most of them devoted themselves to religious subjects, and Buddhist piety gave a powerful encouragement to their art. The Empress Suiko sent young men to China to study medicine, and since that time Chinese therapeutics was generally practised in Japan. We read on page 75 of *The History of Japan*:

"A notable factor in the development of material prosperity at that epoch was the extraordinary ability of the priests. Many of them made voyages to China to study the arts and sciences of that empire, and on their return to Japan travelled up and down the land, opening regions hitherto left barren, building temples, repairing and extending roads, bridging rivers, establishing ferries, digging ponds, canals, and wells, encouraging navigation, and contributing not less to the

material civilisation of the country than to the moral improvement of the people. It may be truly said that the spread of Buddhism was synchronous with the rise of art and science. Carpenters, from the practice acquired in building temples, learned how to construct large edifices; sculptors and metallurgists became skilful by casting and graving idols of gold and bronze; painting, decorative weaving, the ornamentation of utensils, and the illumination of missals owe their expert pursuit to the patronage of Buddhism; the first real impetus given to the potter's art is associated with the name of a priest; in short, almost every branch of industrial and artistical development owes something to the influence of the creed."

It is natural, however, that the priest often made a wrong use of the devotion of the people. Of the Engi era (901–922 A. D.) we read that they became inflated by the reverence received. The temples came into possession of extensive estates, disputes arose among the sects, and military forces were maintained at some of the monasteries, for both aggressive and defensive warfare. When the Lord High Abbot of a temple was appointed by the Court, it became customary that, if priests, according to their right, objected, they came clad in armor, with bows and spears, to the palace to present their grievance. They developed such independence that they did not shrink from resorting to violence—a conduct which caused the Emperor Shirakawa grave anxiety, for he was unable to check their lawlessness. On one occasion, lamenting the arbitrary conduct of the clergy, the emperor said: "There are three things in my empire which do not obey me; the waters of the Kamo river, the dice of the Sugoroku players, and the priests of Buddha."

We know of the same or very similar incidents of high and low ecclesiastic warriors in our own history of the Middle Ages.

During the Nara epoch many glyptic artists were famous for their skill in sculpturing idols; lacquerers and sword-smiths carried their industries far beyond ancient standards of achievement. We read in *The History of Japan*:

"It is further worthy of note that the methods of manufacturing glass and soap were known in the eighth century. Nara and its temples, remaining outside the range of battles and the reach of conflagrations, have escaped the destruction that periodically overtook other imperial capitals, so that those who visit the place to-day can see objects of art in daily use more than a thousand years old.

"Simultaneously with the progress thus made in art and industry, learning received a great impetus. The Emperor Tenchi was the first to appoint officials charged with educational functions, and in accordance with the provisions of the Taihoryo or reform-legislation, promulgated in his time, a university was established in Kyoto, as well as public schools in the various localities throughout the provinces."

As the old deities of the country still exercised a great influence upon the minds of the people, attempts were made to conciliate Buddhism with the belief in the popular gods. "In earlier days, Ryoben, Gyoki, and other priests had preached the identity of the Shinto deities and the Buddhist god. Saicho and Kukai pushed this doctrine still further. They taught that the Hotoke was the one and only divine being, and that all the *Kami* were manifestations of him. On that basis they established a new doctrine called *Shinto*, or the way of the deity, the tenets of which mingled Shintoism and Buddhism inextricably. In consequence of the spread of this doctrine, it became a not uncommon occurrence to find Buddhist relics in a Shinto shrine, or a Shinto idol in a Buddhist temple, while the names of the Shinto deities (*Kami*) were confused with Buddhist titles."

One of the greatest effects, however, of the rise of the new civilisation was the political reorganisation of the Empire, involving the administrations, and the political and social conditions of the whole country. It is known as "The Taikwa Reformation" which was elaborated by Prince Naka-no-oye. It abolished the old primitive methods of administering the country by local chiefs or head men and established a regular government distributing the various functions between the ministers of the left and the right and the ministers of the interior and the eight administrative departments, which are: (1) the department of records; (2) of ceremonies; (3) of administration; (4) of home affairs; (5) of military affairs; (6) of justice; (7) of finance; and (8) of the imperial household. A census was introduced, agrarian measures were taken to enhance agriculture, boxes were set up at various places wherein the people were invited to deposit statements of grievances from which they suffered, and it was provided that a man who desired to bring a complaint speedily to the notice of the authorities should ring a bell hung up in a public building. As the officials were selected by merit, abolishing the system of hereditary succession, noble families were deprived of many privileges; still the aristocracy was benefited by the conservatism of custom. The Taikwa Reform remained the basis of the Japanese constitution, although later centuries were marked by the rise of several powerful families, the Funjiwara family, the Minimoto clan, the Tiara family, the Hojo family and others, who frequently succeeded again in making offices hereditary, and in playing the rôle of *major-domos*." (See page 110.)

We conclude our sketch with a brief notice of the progress made at that period in writing, which proves

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that the Japanese were not mere disciples of the Chinese but original thinkers and independent inventors.

The ideographic system of the Chinese proved insufficient for the exact expression of the Japanese language. Thus a syllabic script was invented, the *manyo-gana* in which Chinese characters were used as phonetic sounds, and as it took much time and labor to write Chinese characters, the original ideographs were abbreviated by Kibino-Makibi (who lived at the Nara-epoch) so as to leave only a skeleton or the so-called radical of the sign. The syllables, thus obtained, reduced the elements of the Japanese script to forty-seven, by which fifty sounds could be represented. "Thenceforth, instead of the pain of committing to memory thousands of ideographs, and employing them with no little toil, it became possible to record the most complex thoughts by the aid of fifty simple syllables. Nevertheless, since the nation had come to regard Chinese literature as the classics of learning, scholars were still compelled to use Chinese ideographs and to follow Chinese rules of composition, so that the cursive forms of the Chinese characters remained the recognised script of educated men.[1] In the Heian Epoch, when the great prelate Kobo-daishi composed for mnemonic purposes, the rhyming syllabary (*iroha-uta*) called *Imayo*, the forms of the simplified characters may be considered as having finally crystallised into the syllabary known as the *Hira kana*." And this script is still in use.

We have to add that "O-no-Yasu-maro, by command of the Empress Gemmyo, compiled in 712 A. D. a history of the empire from the earliest days to the reign of Suiko. This work was called the *Kojiki*. A year later, the various provinces received Imperial instructions to prepare geographical accounts, each of itself, and these were collated into the *Fudoki*. During the next reign, the Empress Gensho continued this literary effort by causing Prince Toneri and others to compile the *Nihon Shoki*, comprising a historical narrative from the beginning of the empire to the reign of Jito. In these works, the *Kojiki* and the *Nihon Shoki*, the most ancient traditions of the country are to be found. Shortly afterwards, six national histories were successively undertaken, the compilation of which continued down to the reign of the Emperor Daigo. All these older books were written in Chinese ideographs." The Japanese language in Japanese writings began to flourish in the Nara epoch and the literature of this golden age has been collected in a great work called the *Manyoshu* which contains many gems of simple but genuine poetry. P. C.

[1] We need scarcely call attention to the fact that Chinese writing being an ideographic script can be written and read by people who do not know the Chinese language. The Japanese and Chinese languages are very different, but a great part of Japanese literature, even to day, is written in Chinese script.

CORRESPONDENCE.

"WE CHRISTIANS."

To the Editor of The Open Court:

I cannot but be gratified by the consideration you have given (in your issue of September 27) to my remarks upon your "We Christians."

I am most interested in your subtle and ingenious defence of the *Forum* phrase. But while appreciating the careful explanation of your view, and taking it as a practical closure of the controversy, permit me to say that I am not convinced.

Indeed this sentence—"I have as good a title to the name Christian if not a better one, than the Pope of Rome," would seem to show that our difference of opinion is really fundamental; and that no successful persuasion upon either side is possible.

As to Agnosticism—here perhaps the difference *is* one rather of "words" than "meaning." You indeed *write* as if by using the words God, Soul, Immortality, with the same familiarity as the words Man, Mind, Mortality, you could acquire something like the same knowledge of their significance. But after all this cannot be your *thought*.

And I find that when it comes to serviceable information on these high themes, each of us, not being supernaturally informed by revelation, is in precisely the same boat of blankest ignorance. The only distinction lies in the different recognition of this ignorance. It does seem to me that every thoughtful Theist, Pantheist, or Atheist must be to a large extent Agnostic too.

For your very kind "personal remark" accept, Sir, my sincerely sympathetic thanks. ELLIS THURTELL.

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A STORY OF KISSES.

BY HUDOR GENONE.

THE merit of Christianity as a system, and the value of "belief" as a factor, consists, not in any creed or intellectual equivalent for feeling, but in the feeling itself.

"Faith" is either a function of fact, or it is of folly, when manifestly it is not faith at all, but credulity—a vastly different matter.

The real faith is not dependent at all upon that symbol or form of statement which produces it. The value of the message has no necessary connexion with the moral merit of the messenger.

Christianity is the power it is, and has been, and will continue to be, because it more nearly expresses abstract truth than any other expression known to mankind. It is capable, by the beauty and pathos of its sublime myth, of attracting more minds than the myths of all other theologies combined.

It may not be literally true, but so marvellous is the fascination of the story that even those who might be disposed to discredit it, if they allowed themselves to think, will deliberately decline investigation, fearful that their ideal might be shattered.

The ideal may be a mirage in life's desert; but never yet was there a mirage without a reality somewhere beyond the visible horizon.

Faith is feeling focussed. It is a complete subordination of sense to a higher, completer, universal sentiment, in whose actual presence emotion becomes the equivalent of knowledge, where all things are made new.

This, in substance, was what I had to say in reply to a request for my opinion as to the truth of the Christian religion.

A large party, chiefly composed of young people, had gathered in the library at Stone, a country-seat on the Hudson, for the holidays, and, as such matters happen, the conversation had taken an accustomed turn. It came about naturally enough, though in a rather peculiar way: one of the guests was a Captain Clay Havisham, recently retired on account of wounds received in action with the Indians. Mrs. Andros's cook was a colored woman, and in her younger days had been a slave in the Havisham family, somewhere in Kentucky. When "Aunty" found that her "young massa" was in the house, she, of course, wanted to see him.

The Captain's recollections of the old woman, who had been his nurse in childhood, were very vivid. He begged that she might be sent for. Mrs. Andros called a servant, and a few moments after Chloe appeared in the great front hall, fat, shaking all over "like a bowl full of jelly," and her broad black face beaming with joy.

Whether the Captain's unfeigned affection made him forgetful, or that he was too proud to seem to hide his real feelings, at all events he left the sliding doors wide open, and in full view of us all threw his arms around Aunt Chloe, and kissed her on the cheek.

That was all we witnessed of the interview. Mrs. Andros rose and softly closed the doors; but what we had seen was quite enough for comment of one sort or another among the guests. They were too high-bred to make these offensively or very openly, but I overheard one young woman—a Miss Rotherhythe, from Boston—remark in a whisper: "Strange, what an effect heredity and early education have upon certain minds"; while my cousin, Nanny Andros, said, in plainer terms and a trifle louder, that "it was just disgusting—I don't see how he could possibly do it."

My aunt, Mrs. Andros, tactfully and quietly turned the current of thought into a different channel, and, so diverted, the stream broadened out into the full tide of discussion.

Among so large a number, of course, there were many shades of opinion. One of the men was "agnostic," another advocated the "higher criticism," while Miss Rotherhythe, with a free flow of language and not a little ability, upheld the cause of what she considered "orthodoxy," or what she called the brotherhood of man.

This sort of thing is amusing to me, and yet there is a sadness about it. Inquiry and argument and opinion are all so entirely futile on the lines that the whole world seems united in holding as the only possible method of approaching truth.

Almost all had something to say; but Maggie Challoner, a sweet, pretty girl, daughter, by the way, of the agnostic gentleman, sat quietly, with her little sis-

ter Mary in her arms, both listening, but never saying a word.

"Come now, Maggie," said Cousin Nan, vivaciously; "you are such a pious little thing, you ought to know more than the rest of us; haven't you anything to say?"

Miss Challoner smiled and shook her head. "No," she answered, "I have nothing to say. I have no views at all, only—I try always to receive Christ as a little child."

In the silence that followed the door opened, Captain Havisham came in, and in a moment the library "buzzed and banged and clacked" again.

It was at this point that I was challenged, with the result I have given,—a result which gave rise to not a little further discussion: Mr. Challoner trying to draw me into an argument, while Miss Rotherhythe was very severe in her condemnation of my use of the word "myth," which she characterised as "positively infidel."

I hardly like to use the expression "pearls before swine," or to seem to say, "Stand aside! I am cleverer than thou"; but I must confess it was solely with a feeling of the hopelessness of words in such a company that I said no more.

Finding that I refused to "give up my fort of silence to a woman," Miss Rotherhythe turned her attention to Captain Havisham.

"What do I think? Well, I can hardly say that I have thought much on the subject either way." Was he a Christian? Well, yes, he thought he was; not a member of any church, but he attended services; "more," said he, frankly, "because my mother likes to have me than for any especial fancy of my own. I think religion is,—well, just love; that's about it."

The Captain spoke hesitatingly and with a sort of indifference, as if the subject were either beyond him, or had little interest to him. He seemed to be almost dull. But a remark of Mr. Challoner drew him out.

"What do I think," said he, brightening instantly, "what do I think of the doctrine that all things are made new? Why, that's true. I know it's true because something happened to me once."

The Captain stopped suddenly, blushing like a girl.

"Oh! you must tell us what it was."

"A story. Is it a story?"

"No," said the Captain, "I won't call it a story, and it isn't much to tell. This is how it was: I was in the Indian country when the Nez Percés went off the reservation, on the war path as they say.

"I was sent with orders for Colonel Swigert of the 12th Colored Cavalry. Swigert's command was on the head waters of Little Butte river, a couple of hundred miles off. My chief could spare but one squadron. When we started there were just thirty-two—all told. I was the only commissioned officer along; but O'Tool, my first sergeant, was an old Indian fighter. Besides, we didn't expect to run across any hostiles; we felt sure they were further down the valley. We did run across 'em, for all that—hundreds on their ponies, all rigged out in feathers and war paint, yelling and whooping. There was only one thing to do. We rode for the timber, and there made a stand—cut trees and piled rocks. This made a fair enough fort; but, to show how hot the firing was, by night they had killed the last of the horses, though this didn't matter so much;—we used their bodies to help make a breastwork.

"They kept us there for two whole days, charging up the hill every now and then, and we firing back with our repeating carbines.

"This was my first brush with the reds. I asked O'Tool what he thought; whether we were likely to pull through, and when he said we'd be in kingdom come inside of forty-eight hours, and Gray Wolf, the Arapahoe scout, thought so too, I may as well own up to being scared. But, scared or not, I loaded and emptied my Remington just the same. That's one merit to West Point: it trains a man not to feel afraid, or, if he is afraid, not to show it. It comes to about the same thing.

"Well, so it went. Two whole days those red devils kept it up. By the second night hardly one wasn't hit, some badly, and a dozen either killed or out of the fight.

"The worst of it was our canteens were empty. We had enough to eat, but for nearly two whole days not a drop of water. Besides that, hardly one of us had any sleep. The first night we had a little rest now and then, but this second the reds kept at it right along.

"They knew we must be getting short of ammunition and pretty well used up. It wasn't light yet, but the moon was nearly full when they charged again. This time Gray Wolf gave up. He wouldn't touch his piece, but sat on the ground,—wrapped his blanket about him, and sat there, rocking back and forth, and singing his death song.

"I kicked and cursed him for a coward; but he wouldn't budge. The savages swarmed up the slope, and I thought, sure enough, our time had come. It gets to be a bit creepy, you know, when you begin to think about keeping a charge of your revolver for your own brains.

"That was what we did,—O'Tool and I,—agreed to shoot one another rather than fall alive into the hands of the reds. The last survivors did that in the Fetterman affair, why not we?

"But, when we had given up all hope, not a hundred rounds left, just before morning the firing and

yells let up for a minute, and then, way down off the valley, we heard a bugle; only two or three notes, but that was enough.

"Every man went wild at once and shouted, 'hurrah! hurrah!' with all their might.

"'Blow your horn, Wentz,' said I to our little Dutch bugler; 'blow all you're worth. Let 'em know we're alive.'

"The little chap had been shot in the thigh, so he couldn't get on his feet, but he was pluck clear through. He grabbed his bugle, puffed his cheeks and rolled over on his back. My! how he did blow.

"Back came 'toot, toot, tooty te toot,' and a minute or two after we caught sight of a guidon fluttering, and the sun, just creeping up, on the sabres.

"The reds were quick, Jove, but it was fun to see the devils scrambling for their ponies. We laughed till the tears ran down our cheeks—laughed and cried together.

"Swigert's troops charged the reds, but troop M, Scott Moran's troop of the 12th Colored Cavalry, rode right up the slope. Glad? talk about being glad. By Jove, if you ever saw glad men we were that.

"O'Tool, who always said he hated niggers, just made for the first trooper that climbed over,—a big, black, grimy, grinning Congo buck, and hugged and kissed him, blubbering like a baby. The rest all did the same,—I among 'em. There was Scott Moran, classmate of mine at the academy; why, when he took a commission in a black regiment I thought he'd disgraced himself.

"I didn't think so when he rode up the hill that morning, and I never have thought so since. I tell you there's nothing like a thing of that kind to knock prejudice out of a man.

"That's what I mean by all things being made new. I've heard people talk about the brotherhood of man, but I've felt it."

"WHY LIVE A MORAL LIFE?"

A "RATIONALIST" SYMPOSIUM.

BY AMOS WATERS.

True morality is only possible when conduct is based on cultivated intelligence. Matthew Arnold said conduct was three fourths of human life—we may allow to conscience the other fourth, which in truth is the greater part. When the soul of man has wrestled in the wilderness with the everlasting *Why* of all existence, and emerges into the crowded avenues of human duty, with perfect understanding deliberately choosing the straight and narrow path of holy rectitude, conduct transcends the policy of manners and soars into the shining region of morality.

Morality accounts for the yesterday, and provides for the morrow. If retrospect entail repentance, the future demands atonement. Herein Christianity was eloquently right—as, in truth, were all the profoundest religions. The yesterday of religious science is as full and vivid, and the morrow thereof as prolonged and actual, as the yesterday and the morrow of supernatural religion. But the problem, "Why Live a Moral Life?" demands of the monist, the agnostic, or the philosophers who inelegantly label themselves "Rationalists": *Why care to account for yesterday or to adorn the morrow?* In the extremely opportune symposium importantly featuring the *Agnostic Annual* for 1895, this problem is, more or less, competently handled by a group of, more or less, eminent gentlemen content to bear that banner of strange device named "Rationalism."

The unique variety of opinion in this Symposium is editorially charitable, but suspiciously vagrant in proximity to burlesque—if by "Rationalism" any definite temper of modern thought be intended. For example, Dr. Alfred Momerie—an elegant heretic of charming courage in the worldly Church of England—almost cynically confesses his incapacity for imagination without reward, i. e., for accepting the sovereign compulsion of nobility, usefulness, self-denial, and enthusiastic service, (in a single word, the necessity of duty,) apart from the serenely ignoble satisfaction of pleasing God, and being immortally comfortable hereafter. He thinks pessimism and sensuality inevitable—goodness unreasonable and quixotically weak— and "everything in the last resort vanity," unless there be a future life. Meaning thereby, mark you, not the immortality loftily and inspiringly proclaimed by the editor of *The Open Court*,—the immortality born of the wedded compact of purified religion and spiritualised science,—but the grossly enticing immortality that spells individual "pleasure," and writes the stupendously selfish promise in dazzling letters across the deep vaults of night. Most fatally and mischievously, this speculator in post-mortem scrip balances choice between two pleasurable impulsions: between conscious self-gratulation beyond the grave, and—to the shame of "Rationalism" be it written—self-indulgence in the "certainties" of this life. Dr. Momerie disastrously confounds morality by identifying sin and pleasure—the vicious mistake of most theologians. The certainties of our human life are not the caprices of sin, but precious opportunities of opposing the best love within us to the basest temptations around us—for making some desert spot glow with ripened fruit to faltering wayfarers—for communing with the grand historic life of divine humanity, and adding at least one heroic note to its noblest harmonies. To the Rev. Dr. Momerie—cynical coquette with "Rationalism"—may be commended the words

of one greater than he—words that will be immortal prose when he and his generation have passed away:

"It is only a poor sort of happiness that could ever come by caring much about our own narrow pleasures. We can only have the highest happiness, such as goes along with being a great man, by having wide thoughts and much feeling for the rest of the world, as well as ourselves; and this sort of happiness often brings so much pain with it, that we can only tell it from pain by its being what we would choose before everything else, because our own souls see it is good. There are so many things wrong and difficult in the world, that no man can be great—he can hardly keep himself from wickedness—unless he gives up thinking much about pleasures or rewards, and gets strength to endure what is hard and painful. . . . And so . . . if you mean to act nobly and seek to know the best things God has put within the reach of men, you must learn to fix your mind on that end, and not on what will happen to you because of it. And remember, if you were to choose something lower, and make it the rule of your life to seek your own pleasure and escape from what is disagreeable, calamity might come just the same; and it would be calamity falling on a base mind, which is the one form of selfishness that has no balm in it, and that may well make a man say,—'It would have been better for me if I had never been born.' "—George Eliot's *Romola*.

Why live a moral life? Even "Spiritualism" is inspired to answer the demand in the name of "Rationalism" by grace of Dr. A. R. Wallace, whose discussion is sufficiently and commonly sensible, but lacking the one thing needful—i. e., the positive genius of ethical instruction. Dr. Wallace writes of the "Spiritualist":

"He dreads to give way to passion, or to falsehood, to selfishness, or to a life of mere luxurious enjoyment physically, because he knows that the natural and inevitable consequences of such a life are future misery. He will be deterred from crime by the knowledge that its unforeseen consequences may cause him ages of remorse."

This answer for "Spiritualism" is the abject answer of calculating commercialism, ingeniously alert against the dangers of moral bankruptcy in the crystal cities of celestial fortune, beyond the sunset and sound of evening bell. "Spiritualism" thus answers for itself, but Dr. Wallace obligingly suggests the answer of "Rationalism":

"The general answer I would now give to the question, 'Why live a moral life?' from the purely rationalistic point of view, is—first, that we shall thereby generally secure the good opinion of the world at large, and more especially of the society among which we live; and that this good opinion counts for much, both as a factor in our happiness and in our material success. Secondly, that, in the long run, morality pays best; that it conduces to health, to peace of mind, to social advancement; and, at the same time, avoids all those risks to which immoral conduct, especially if it goes so far as criminality, renders us liable."

If this be the final word of "Rationalism"—the annunciation of a protagonist to wistful pilgrims—then should we long anew for the authentic thunders of the olden gods. "The good opinion of the world at large," forsooth—what cared the martyrs and redeemers of humanity for the "good opinion of the world"? Over the stormy seas of heroic record there are names that shine like brilliant stars, and burn like stars the brighter, the darker the night they crown. And remembering Jesus, and Savonarola, and Bruno, and many another, we are shamed by the timorous counsels of a modern day—the butterfly flittings toward the "good opinion of the world." Nay, more, in every epoch of disintegration public opinion was ever the cataract that roared toward the brink and plunged into abyssmal ruin. "Morality pays best"?—but it is precisely the profitable success that often submerges the soul in damnation. The morality of truth-speaking does not always "pay best." The cult of the jumping cat "pays" better. In politics, honesty is the flouted policy—it "pays" better to bend the supple knee and slide with the multitude. In art, and in literature, the morality that is eloquent for ideals and opulent with valiant inspirations, often asks for bread in vain and falls into a neglected grave. Servility to popular idols "pays" better. In religion, the morality of impassioned sincerity is sometimes stoned or crucified—the crowd returns to worship what it spurned, but the dead martyr is incurious to the homage of praying hands. And so in science, and so in all or almost all communal intricacies of moral effort—the godward road is reminiscent of gibbeted bones, and blood, and lonely tears. and, to accept the lowest level of argument, if you base the desire for morality on the promise of personal gain and popularity, you stifle every hope of reform and bribe the individual conscience to lethargy or reasoned treachery.

The famous "Author of *Supernatural Religion*" also asserts the theory of enlightened selfishness, but fortunately asserts it as the beginning, and not the final basis of goodness. In the love of approbation, he remotely perceives the genesis of the altruistic sentiment—he traces the highest morality from embryonic self-esteem, to "an almost instinctive preference for what is noble and refined . . . . and an almost equally instinctive aversion to what is base and degraded." We have, he worthily insists, "come to love 'goodness' for its own sake, just as we love beauty of line and color, independent of any idea of utility. We have attained a natural and instinctive preference for what is good and noble in conduct, irrespective of self-interest, just as we have risen to an instinctive appreciation of fine music and delicate perfume." And he voices the primordial sorrow of the race, when he crystallises the pathos and the passion of it in one sentence of lurid lament:

"We have eaten, to some purpose, of the fruit of the tree of knowledge of good and evil, and realised the truth that, finally, the one is sweet and the other bitter."

Is not this the truth of all ages for the race?—even as, also, of individuals who reproduce the tragic fable of Eden, and the spiritual evolution beyond the flam-

ing sword in the span of their own travail? Wherefore, this strenuous iconoclast renounces his scepticism, and ardently believes that "a moral life, without much conscious debate, will generally be led, and must be led, in accordance with principles of universal application." And James Allanson Picton coincides with the view that, in the best conduct, "there is no consciousness of motive at all." Mr. Picton is a philosopher who "went into materialism and came out at the other end," and almost lost his philosophy in the bad company and late hours of the British House of Commons; and there are echoes of parochialism in his section of the Symposium. We shudder with comic dismay when he finds ethical illustrations in trade unionism and strikes. But his vindicated sanction for rationalist morality is supremely excellent. There is hell enough in a guilty conscience, and heaven enough in sincerity and truth, to inspire *loyalty* to character—devotion to the infinite whole of which man is a fraternal fraction. So he opines: and Ludwig Büchner, Leslie Stephen, Max Müller, F. J. Gould, and others, ring the changes of this fascinating Symposium in similar chimes. But in the picturesque variety of conclusion, we recognise the impossibility of conceiving outside the churches, any one sanction of universal appeal—and, if the sanction be difficult to harmonise, the standard is necessarily liable to anarchic speculation.

"It is pusillanimity which produces squinting views of morality,"[1] and it is precisely the pusillanimous aspect of mentality that inspires mankind to misgiving, and kindles the smouldering fear into a blaze of brilliant discussion, such as the Symposium under review. We project our own terrors into the order of nature; forgetting that our feeble theories cannot affect the reign of the moral law that demands conformity as peremptorily as do the irresistible forces we name physical. To break one law of nature is impossible; to blindly ignore one is to be broken on the wheel. The impulses of the moral law include reaction; an epoch of sensual madness is succeeded by another of fanatical austerity; an individual season of swinish indulgence is followed by another of wintry regret, or frenzied repentance; unless the psycho-physical providences of natural law efface the erring organism. In the *Asclepiad* for December, 1893, Dr. B. W. Richardson individualised a pregnantly suggestive theory of mental science, of which more is likely to be heard. To briefly summarise: Each man has two brains in his skull, so distinct and separate that two different men might own them. The duality of the human mind is made up of good and evil; none of these twin-brains are exactly balanced; the good brain or the evil brain may predominate; the evil brain may be worn by excitement and the impressions of the good brain rise victorious; or a strong and earnest external nature may arrest the action of the evil brain, compel or inspire it to obedience, and arouse the activities of the good brain. Literally and physically, the subject is "born again" by an exact scientific process; he is converted to goodness—although this process may be applied in the aid of the grossest superstition. Sudden changes of character, may be due to oscillations in the domination of one half of the head over the other—or change may be impossible in that one of the brains has half gone to water.

Now, the twin-brain theory was originally propounded by Sir Henry Holland, and afterwards advocated by Dr. Brown-Sequard, but these applied the theory to phenomena of dual consciousness and responsibility. A mass of vividly interesting observations have accumulated around the theory during the last twenty years, all complicating the problem of moral responsibility and reminding us of Huxley's illustration of "the prince-bishop, who swore as a prince and not as a bishop. 'But, your highness, if the prince is damned, what will become of the bishop?' said the peasant." If, however, the exposition of Dr. B. W. Richardson be entirely provable, it marks a most hopeful advance of moral science toward the salvation of the race. The pygmies of mere propriety have masqueraded morality as a shrew, to insult the graves of dead genius; the greatness of Goethe and Byron and many another of the immortals has been detracted by dung-hill dancers. This is a phase of that "pusillanimity" in ethics, protested against by Dr. Carus in his incidental rebuke of the censors of Goethe. Such ignoble feuds would be shamed, and the historic vision enlarged and liberalised—nay, more, living truants from convention might be restored, if the physiological and the psychological evidences agree in the provisions of the two-brain theory of good and evil.

Wherefore, "Why live a moral life?" seems obvious in affirmative answer, whether or not there was ever a yesterday, whether or not there will ever be a morrow, whether there be one God or no God, three Gods or thirty thousand. Each individual will discover an idiosyncratic attraction for obedience to the absolute sovereignty of the moral law; many individuals will differ in the interpretation of intricate emergencies; death and sorrow and the shadows of the night will eternally haunt the pilgrims of time; but the wisdom gathered from the ages gone by is imperishable;—and in the light of that wisdom the soul of man will be constrained toward goodness because it is duty..

[1] *Homilies of Science*, by Dr. Paul Carus, p. 275.

HAPPINESS.

BY MATTIE MINER-M'CASLIN.

Starting upon the path of life—
The path where all must onward press,
A youth pursued with eager steps
A snow-white dove called Happiness.

He ever and anon would stretch
His hand to grasp its plumage bright,
But still it would elude his touch,
And seemed to mock him in its flight.

The morn is changing into noon,
His raven locks are streaked with grey
The eventide is coming soon,
And now the white dove seems to say:

"Night comes apace, when morn shall rise
Upon another day so fair,
My home will be in Paradise;
Hast thou a pass to enter there?"

Just then a beggar caught his skirt
In supplication, and he turned
And saw the man was lame and blind,
His heart in tender pity yearned.

He fed the beggar from his store,
And as the tottering footsteps led
He looked aloft, and there behold,
The white bird fluttered round his head!

He ceased to think about the dove
And paused to let the cripple rest,
Just as he did this deed of love
The white dove nestled in his breast.

It thrilled him with a sudden joy,
And lo! he saw before his eyes
The beggar to an angel changed
Within the gate of Paradise.

Pursued for sake of self alone
True happiness must ever flee
But *Love* will give thee back thy own—
Thy guest and bosom-friend 'twill be.

SCIENCE AND REFORM.

COUNT LESSEPS.

Political and educational reform never had a truer friend than Ferdinand de Lesseps. The "great engineer," as American papers persist in calling him, was a diplomat by education, and would have been awarded the highest prizes of the political arena, if his bold protests against the autocratic policy of Louis Napoleon, and the consequent hostility of the imperial government, had not impeded his professional progress. The Suez canal was only one of the numberless projects suggested by the wide range of his miscellaneous studies. He published several pamphlets on the plan of obviating the necessity of direct taxation by means of government land-reservations, the revenue to be applied to the municipal expenses of each community. In order to shorten the service of conscripts, he proposed to drill schoolboys in the rudiments of military education, and never ceased to urge the advantages of competitive athletics, as distinct from the compulsory contortion work of college gymnasiums. He also projected a universal language, to be "combined from the shortest terms and simplest grammatical forms of each idiom." His personal complicity in the Panama frauds has never been proved, and, indeed, never been seriously insinuated, beyond the charge of carelessness in trusting the management of the funds to unscrupulous speculators; and the real cause of his transient unpopularity is well known to have been his refusal to join in the howls of Anti-Prussian faction. He had no objection to raise the military organisation of France to the maximum of efficiency, but maintained that the worst enemies of French prestige were not to be sought beyond the Rhine, but beyond the English channel. To the predestined failure of current political intrigues he also attributed the recent revival of Napoleon-worship. "Seeing nothing," he said, "but imbecility in gorgeous uniforms all around, the vision of the victor of Marengo in his gray battle-cloak naturally rises before their eyes." His verdict on the prospects of the Anti-Anarchist crusade was equally pertinent. "I foresee a better cure," he said; "those gentlemen and their Communistic friends will before long get a chance to try their theories in practice, and the world will not be apt to forget the results of the experiment." He celebrated his eighty-seventh birthday in the enjoyment of all his mental and physical faculties, and the subsequent decline of his health is less due to the effects of old age than to the sorrow of enforced silence. Heinrich Heine defined the French Revolution as "an attempt to realise the ideal of equality, if not of liberty, by lopping off a few hundred thousand heads that insisted on rising above the average level," but the study of such moral and physical giants as Chamisso and Count Lesseps suggests an occasional doubt in the benefit of the specific,—at least, from Thomas Carlyle's point of view that, "aristocracy being unavoidable, we might as well try to secure the supremacy of genuine aristocrats." Count Lesseps, as a surviving representative of an almost extinct type of French patriots, justifies a conjecture that for the true interests of their country, some of the heads, sacrificed to the equalisation plan, ought to have been abolished in a less radical manner.

UNIVERSAL LANGUAGE.

The Lesseps project of constructing a world's speech from the shortest terms of every ancient and modern language seems never to have passed the outline stage of its development, but would almost undoubtedly have been found an improvement on the Volapük nightmare of Parson Schleyer. The sudden collapse of the Schleyer fad has been ascribed to the capriciousness of a novelty-loving public, but its temporary success was really a much more astonishing proof of that caprice. As a world-language the chimera of the Swiss village pastor really combined all possible objections: agglutinative, unwieldy, and cacophonous to a preposterous degree, and it is to be feared that the time wasted on the study of the unpronounceable conglomerations will tend to prejudice the public against such better attempts at the solution of the problem as time and ingenuity will sooner or later be sure to evolve. The principle of the Lesseps plan will be a chief recommendation of a universally acceptable language and has certainly not been realised in any existing idiom—the monosyllables of the Chinese vernacular, with its involved syntax, being only an apparent exception. English comes a little nearer to the realisation of the ideal, but the adoption of the French and Spanish *se* in the place of the Saxon *himself* would be as sensible as the substitution of the Saxon *too* for the Spanish *demasiado*.

FORESTS AND CLIMATE.

The meteorological records of the last ten years have, on the whole, confirmed the belief that the climate of North America is undergoing a change similar to that effected in Europe by the destruction of the ancient woodlands which once covered the continent from Calabria to the Baltic. Our summers are getting dryer, and our winters warmer and rainier. There was a time when Italy, Spain, and Greece could dispense with irrigation, while the

rigors of a long winter made northern Germany fit only for bears and the hardiest barbarians. All the old settlers of our southern Alleghanies agree that hard frosts are getting much rarer than formerly, when rivers, which now freeze only along the shore-cliffs, were bridged, year after year, by solid ice; but, on the other hand, the stock-farmers on the lowlands complain that their summer rains hardly suffice to fill the artificial ponds of pastures which once were watered by perennial springs.

SANITARY LEGISLATION.

Herbert Spencer, in his *Principles of Human Happiness* proposes to limit the jurisdiction of our health-bureaus to unmitigated evils and to nuisances affecting the comfort alike of the willing and unwilling, such as smoking factories that poison the air, which ought to be freely enjoyed by the poorest of our fellow-citizens. If those fellow-men choose to pen themselves up in foul tenements he would leave them to bear the consequences of their folly. The philosopher choked by the fumes of a fat-rendering establishment across the way, does not suffer by his own fault: he has an unalienable claim to the common blessing of fresh air and a consequent right to sue his pestiferous neighbors for damages. But could that same principle not be applied to the superfluous noises which make existence a burden to thousands of city-dwellers? Men, with the exception of janitors and Second Adventists, have a right to the enjoyment of a night's rest and might justly sue the abettors of steam-whistle serenades and "twenty-four-hour factories." In Pittsburgh, Pa., there are districts where hundreds of families could attest that their children sit up in bed at night and cry, being awakened again and again by a rolling-mill clatter which one witness describes as a "rumpus worse than the Devil tumbling down a tin-roof." James Payn speaks about a Parisian association of self-helpers who mitigate another midnight grievance after a manner of their own, hundreds of barking curs having been found dead, after their owners had been warned by a brief note: "Your dog, Sir, is a nuisance, and unless you contrive to keep him quiet, I sentence him to death." Crowing roosters, that cannot distinguish moonlight from dawn, are not much better, and in the absence of legal resources, a lover of sound sleep would often be justified in perpetrating a practical parody on the Socratic advice of sacrificing a cock to Æsculapius.

ANOTHER FROST-CURE.

The value of cold air as a remedy is getting more and more generally recognised. Ice-air hospitals for the cure of yellow fever are springing up all over Spanish America, and Prof. Charles Podet, in a paper read before the Academy of Medicine, describes a whole system of "Frigo-Therapeutics." He proposes to cure catarrhs by the application of ice-air currents to the spine, and states that "having experimented with dogs, he found that on being exposed to a low temperature they became ravenously hungry. Being himself a sufferer from digestive troubles, he had forgotten what it is to have an appetite, so he descended into a refrigerating tank, the temperature being many degrees below zero. He was wrapped in a thick pelisse and other warm clothes. After four minutes he began to feel hungry. In eight minutes he came out of the tank with a painfully keen appetite. Several such experiments were made, and all meals that he took after a short stay in the refrigerator agreed with him. He found his dyspepsia cured after the tenth descent."

THE LAST STRAW.

The perils of a small disappointment, superadded to a long series of similar provocations, was strikingly illustrated by a recent suicide, in consequence of the apparent heartlessness of a railway-official, who had merely tried to enforce, or at least to explain, a perfectly equitable business-regulation. A victim of the Oklahoma boom returned from the Far West to the neighborhood of his former home in western Ohio, and being unable to find work in any of the midway cities, concluded to economise his small means by walking a large part of the distance. His household goods, though sent by freight, had thus got ahead of him, and among the mail awaiting him at the terminus of his trip he found a freight-bill exceeding his available assets by at least ten dollars. It took him nearly a week to borrow half that amount, and rather than relinquish his claim to the cargo he sold an old watch and some articles of wearing apparel. The clerks in charge of the depot, however, informed him that there was another hitch in the programme: His household goods having been side-tracked nearly a month in the freight-yard, the western railway company would charge a compensation for the four weeks' use of their freight-car. The extra charges amounted to only four dollars, but the owner of the freight at once faced about, invested a quarter in a coil of rope and hung himself in a neighboring hilltop thicket.

MOB VERDICTS.

The authority of Judge Lynch—after all the last court of appeal—has often been shamefully abused for partisan purposes; but it must be admitted that the legal decisions of a mass-meeting are rarely altogether wrong. The high-handed acts of our western regulators were mostly due to the inadequacy of the regular legal establishments, but even in an over-governed country like continental Europe the *Vox populi* now and then assumes jurisdiction in the trial of an offender not amenable to the administrators of the ordinary laws. Ever since that lancet episode in the sick-room of the Czar, the American press reiterated the assertion that the alleged sufferer from Bright's disease was really dying a victim of medical malpractice. Few Russian papers would have risked even an allusion to these charges, but among other items of legitimate news they soon after reported the fact that, on receipt of the telegram from Livadia, announcing the death of the Czar, a mob had wrecked the Moscow residence of Court-physician Zacharin.

FELIX L. OSWALD.

BOOK NOTICES.

THE MIGRATION OF SYMBOLS. By the *Count Goblet d'Alviella*, Hibbert Lecturer in 1891. (Westminster: A. Constable & Co. 1894. Pp. 303.)

This is a translation of a French book, which was published under a similar title at Paris in 1892. The author is called "the greatest living authority" on this subject by the writer of the Introduction, Sir George Birdwood; and those who have read *The Contemporary Evolution of Religious Thought* will expect to be deeply interested by this handsomely printed and abundantly illustrated volume. We are told, for instance, that the three-legged emblem of the Isle of Man was borrowed from Sicily, where it represented the form of the island much more accurately, and also that it was first used as a solar emblem in Lycia. The two symbols which receive most attention are the winged globe and that form of the cross which has its ends bent back at right angles, and is called the *gammadion* or *swastika*. The former symbol is said to show the influence of Egypt and Babylon, while the latter is characteristic of the Aryan civilisation which was predominant in Greece, but which left this trace of its presence in India, Scandinavia, and all the intervening lands. Thus the old world may be divided into two zones, each of which had its own peculiar sign. Migration of symbols has taken place continually; and it has usually been accompanied by change of meaning. Thus the cross was used in ancient Peru, to denote that meeting of the winds which brought rain; but this seems more likely to be a case of independent use than of migration. F. M. H.

Professor C. Lloyd Morgan, Principal of University College, Bristol England, and by all odds the most philosophical of con-

temporaneous English biologists, has just published in the Contemporary Science Series *An Introduction to Comparative Psychology.* (London: Walter Scott. New York: Charles Scribner's Sons. Pp., 337. Price, $1.25.) We expect to give a detailed review of this work in *The Monist*, and shall only mention here that as an introduction to the study of general psychology it is unequalled. Professor Morgan has now in the press a second work, entitled *Psychology for Teachers.* He is also at work editing the second part of Mr. Romanes's *Darwin and After Darwin*, which was delayed by the illness and death of the last-named distinguished biologist.

Students of political science will be interested in the *Series of Constitutions* now issued by *The American Academy of Political and Social Science* (Philadelphia, Station B). They come as supplements to the *Annals* of the Academy, the latest being *The Constitution of the Kingdom of Italy*, translated and supplied with an Introduction and Notes by Dr. S. M. Lindsay and Dr. L. S. Rowe (pages, 44). The Constitutions of Mexico, Colombia, France, and Prussia, have also appeared. The prices of the books range from thirty-five to fifty cents. We should also not omit to notice, in this connexion, *A History of Political Economy* by Gustav Cohn, Professor in Göttingen, translated by Dr. Joseph Adna Hill, (142 pages, published by the same society) which in brief compass gives an excellent sketch of the history of economic science. Altogether, the Academy has undertaken a valuable work in this series of supplements.

B. Westermann & Co. (Lemcke and Buechner), 812 Broadway, New York, have just issued a *Catalogue Raisonné* of German literature, having for its subtitle, "Hints for Selecting the German Library of a Man of Culture." Mr. Lemcke has supplied a short preface to the Catalogue, emphasising the value of German literature and the necessity of its study. The editions catalogued range from the cheapest to the dearest; nor are the best English translations omitted. "Many a German," says Mr. Lemcke, "could find no better means for fully comprehending obscure "passages in 'Faust,' for instance, than by comparing B. Taylor's "English version with the original, or in Shakespeare, than by "keeping Schlegel's German rendering at hand."

In the *New Jerusalem in the World's Religious Congress of 1893* (Chicago, Western New-Church Union; pages 454; price $2.00), the Rev. L. P. Mercer has thrown together a number of reports and addresses showing the part which the faith of the New Jerusalem took in the World's Parliament of Religions. It would seem, from Mr. Bonney's account of the genesis of the Congress that its inception and execution were due *exclusively* to Swedenborgian influences. The articles and addresses discuss every phase of Swedenborgianism, and the book is eminently well fitted to give the reader a just view of the tendency of the New-Church principles and doctrines.

Dr. George Bruce Halsted's latest performance in his chosen field is a translation, purporting to be from the Russian, of Prof. A. Vasiliev's commemorative address on Nicolái Ivánovich Lobachévsky, delivered at Kasán on October 22, 1893. Professor Vasiliev's address is a competent and exceedingly interesting review of the great Russian mathematician's achievements, life, and character, and Professor Halsted has put it into very readable English. (The Neomon: 2407 Guadalupe Street, Austin, Texas.)

Animal Rights Considered in Relation to Social Progress, is the title of Mr. Henry S. Salt's newest work, published under the auspices of the Humanitarian League. (Macmillan & Co. Pages, 176. Price, 75 cents.) The author seeks "to set the principle of animals' rights on a consistent and intelligible footing." An essay on Vivisection, or, rather, against Vivisection, is appended to the book, together with a bibliography of the subject.

Roberts Bros., of Boston, publish a "tale of the life to come" under the title of *The Wedding Garment* (246 pages, price $1.00), by Louis Pendleton. The "tale" is excessively anthropomorphic, and not very powerfully conceived. The author's conception of the future life is derived from Swedenborg.

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IMMORTALITY.

BY MAJOR J. W. POWELL.

SONG.

The strange dissolving view of yore
Is myth transformed to modern lore;
As fades the error from the screen,
Emblazoned truth in place is seen.

Time works a change the wide world o'er:
What was, what is, will be no more;
The living grow from day to day,
The dead depart with swift decay.

One generation plays its part,
Another gains a defter art,
And every hour with strife is passed,
And thus some change is wrought at last.

And change with change, although minute,
A transformation constitute;
So new creation comes with time,
In metamorphosis sublime.

HEREDITY.

How small the record of primal man!
His bones are found beneath the sands and clays,
Entombed by storms and buried deep by floods;
But life-informing lineaments are gone;
Forever lost the frown that awed the race,
And ne'er is seen his smile-illumined face.

But primal man is made immortal here;
Heredity is life eterne on earth.
As father lives in son, so life goes on
From generations past to those that come;
And elder man still lives in younger time,
And still shall live to reach the future clime.

LABOR.

The works of primal man are scattered wide
In uncared desolation o'er the world—
On hill-top, where the flinty ridge is ploughed,
In valley, where the kine crop grasses sweet,
In shingle on the shore of fossil lake,
Or buried deep on marge of ancient sea,
Or under lava floods on mountain lea.

Not thus his arts, for they live on through time,
By secular development to change
And be improved by husbandry of mind,
Until industrial fruits shall bless mankind.

With welfare gained man never is content,
But seeks prosperity on every hand;
For more and more he makes invention deft,
Innumerable plans for store of food,
Devices many for superior dress,
A thousand thousand wise designs for home,
A million million schemes for sweeter health,
Contriving ever for increase of wealth.

Ofttimes for wealth he seeks a shorter road
Than industry of honest toil and thought,
Inheriting the strategem of beast,
By which prehuman life its progress made
Obedient to law of primal time—
The first vicarious atonement strange,
When many many died that one might live—
The crawling serpent's high prerogative.

PLEASURE.

The sports in which primeval man engaged
Are lost from page of human history:
The lion's whelp disports on verdant lea;
The wild bird sings from tent of poplar leaf;
The cricket chirps its mirth from lily home,
And all of nature's songs yet fill the air
With voice multisonous of pleasure world;
But man alone has lost primeval joys,
And babe is pleased with artificial toys.

The babe in mother's lap, with hands and feet
As soft and pink as petals of the rose,
Inherits more activity than need,
And pummels space and kicks vacuity—
The primal pleasure, boon of all the race
And germ of every joy and every grace
That bourgeons on as generations pass,
A boon of pleasure for the lad and lass.

With pleasure gained man never is content,
But sweeter pleasure seeks as moments pass,
Inventing ever some new joy of life

And choosing best by wise experience
As pleasure comes adown the stream of time,
Alluring longing man in every clime.

Ofttime his choice of pleasure is unwise:
White lily joy black ash in eager grasp;
The serpent's folly when the fakir charms;
The debauchee's embraced in shameless arms.

LANGUAGE.

The earliest names of mountain, hill, and vale,
Of river rolling swift, and placid lake,
Are tongued by none and graved on no man's chart;
The harsh primordial epithets of hate,
And words of sweet endearment—all are lost.
The kissing air bears not the primal speech
To ears that listen unto tongues that teach.

Perchance a language formed with every tribe,
Wherever men were scattered wide o'er earth—
Articulations helped by gesture signs.
From these, by long development of time,
The higher tongues have sprung, to give mankind
Exchange of thoughts expressing hopes and fears;
And primal speech still lives, transformed by years.

With skilful speech man never is content,
For clear expression strives forevermore,
By demonstrating word to fix his thought,
By imitative word to make it clear,
By holophrastic form to gain belief,
By analogic form to hold the mind,
By speech organic making plain his theme,
Inventing ever better forms and words—
For wise men gems, for fools but glinting surds.

Ofttimes the quest for deft expression fails,
And halting speech ill serves the eager mind;
Or words that come are empty forms of thought,
Or serve to hide the truth or publish lie;
But words of truth may live, of error die.

JUSTICE.

The social bonds that held the primal man
Are now unknown to men of higher life;
His forms and plans of government are lost,
His wisest laws of custom all are flown,—
No parchment records found, no glyphs on stone.

And yet his institutions still remain,
Transformed to meet the needs of wiser men;
By many a change, in struggle hard for right,
The unknown germs of early social life
Have lived again through generations vast,
Till lowly forms have grown to giant trees,
Whose richer fruitage blesses all mankind
With wider, gentler bonds, and sweeter peace,
And greater justice, that shall still increase.

With justice gained man never is content,
And thus the forms of government are changed,
Enactment ever crowded by repeal,
New rulers chosen for imperial throne,
New principles announced from judgment seat
And peoples all convulsed for longed reform,
Or plunged in wars of desolating storm.

Ofttimes his choice of ruler is unwise;
The council-hall becomes the school of wrong,
The sceptre mighty wand of tyranny,
The robe of justice cloak of filthy greed,
From which men vainly struggle to be freed.

CULTURE.

The thoughts of early man are now unknown;
In all the tomes of world no page is his.
The grand phenomena of arching heaven,
The wondrous scenes of widespread earth and sea,
The pleasure sweet and bitter pain of life—
As these are known to-day so were they then,
But all in psychic terms of simple men.

And yet his thoughts live on to later time.
As mind has grown the thoughts have been enlarged,
Revolving oft in human soul through life,
In grand endeavor yet to reach the truth,
Repeated o'er by streams of countless men,
And changing e'er with mind's expanding view,
Till errors eld have grown to science new.

With knowledge gained man never is content:
Nor wold, nor mount, nor gorge, nor icy field,
Nor depths of sea, nor heights of starry sky,
Can daunt his courage in this high emprise,
Or sate the vision of his longing eyes,
But evermore of truth invents new store
And seeks the proof that multiplies his lore.

Ofttimes his eager search is made in vain,
For boon of truth invents an error's bane.
His dear philosophy but crumbling thought;
His fondest proof of baseless tissue wrought.

SONG.

Law is the guide for human race.
History marks the progress won,
Changing for e'er in time and space,
Staunch to the rule as central sun.

Law is supreme in every case.
Storm from the north or south may blow,
Never to turn from way a trace;
On to the goal mankind must go.

Law is the firm and lasting base.
Centuries fraught with wild mischance,
Failing to swerve from path of grace,
Join in the march with gleaming lance.

ADAPTATION.

Each man is heir to deeds of all his race;
He is what generations long have wrought,
His life by fate inexorably cast
To ancient norm of teeming beings past.

Environment of universe his home,
Whose sledges everlasting battle wage,
And on the anvil of the past he lies
While blows against his plastic form are hurled,
In adaptation wrought by beating world.

In crowds he comes to land on hither shore,
A bourne of sand and wild unfriendly rock,
Where fittest may survive, unfittest yield,
Consigned by changeless law to die the death
And render into fate the fleeting breath.

EFFORT.

Thus primal man was cast on shore of time
With heritage of life from lowly beast
And hostile land and law to meet his need,
And ne'er a hand to help or voice to speed.

And yet, with self-activity endowed,
He faced unfriendly world with hope and joy,
And raised his soul above the rock of past,
The present made obedient to will,
And when the heavens frowned with angry gale
He caught its murky form to fill his sail.

With high endeavor filled he faced the task;
On brutal past he built a higher life;
The rock was but foundation laid in earth,—
Each generation claimed a higher birth,
No longer yielded he obedience,
A docile slave, to all external force,
But met the force with force and won the fight,
And turned the deed of wrong to deed of right.

And when environment was found unkind,
Anew he wrought it into kinder shape:
Of skin of savage lion made a robe;
Of burly buffalo a joyful feast;
A dreary wold transformed to garden fair;
From ledge of rock he wrought an ingleside;
Of marbled blocks a temple reared to God;
On rolling ocean sailed his palace boat;
And, growing bold, he caught the levin light,
To bear glad tidings through the gloomy night.
And gazing out on world of bitter war,
For food competing, fierce and foul of deed,
By deft invention learned to lead them all
And make himself the fittest soul to live
Beyond competing tribes of lower life,
Emancipate from all the brutal strife.

DESIGN.

And now, a freedman from the law of beast,
With galling bonds dirempt by psychic blow,
The mighty struggle for existence won
And toil of effort yoked to levin force,
He turns his energies to culture's realm,
With better world in sight to star his helm.

With retrospect of aeons now endowed,
Creation's history before him spread
And laws of universe aflame in truth,
He turns the search-light of the past ahead
And plans his way among the coming years,
While all *eternity* in *now* appears.

Life's struggle won and all life's pleasure gained,
A beatific vision fills his soul,
Of self immersed in immortality;
While through the wilderness he builds the ways,
Transforming desert drear to Eden fair,
But more himself transforms from brute to sage,
In change from primal time to future age.

Man now relies upon the newer law,
And presses on the five highways of life:
By road of labor reaches welfare good;
By road of pleasure wins the fonder joy;
By road of speech expresses defter thought;
By road of justice gains the greater help;
By road of culture knows the wiser deed:
And thus by purpose comes the future meed.

SONG.

Deeds of primeval man all are forgot;
Tongues of the wilderness share in the lot;
Thoughts of the primal mind vanish for aye;
All are entombed from primordial day.

Nay, not entombed, but implanted in time;
Bourgeoning germs for the orchards' sublime;
Growing in vast generations untold,
Ever as richer fruits deftly unfold.

Life in a vision prophetic appears,
Wonderful change rolling on through the years:
Being as ever Becoming eterne;
Ever Becoming as Being supern.

CHAPTERS FROM THE NEW APOCRYPHA.

BY HUDOR GENONE.

THE TRUTH.

Pilate saith unto Jesus, Art thou a king?

Jesus answered, If I be a king, my kingdom is not of this world.

To this end came I into the world that I should bear witness unto the truth.

Pilate saith unto him, What is truth?

Jesus, answering, saith unto Pilate, It is light that shineth in darkness, but the darkness comprehendeth it not.

For as light answereth unto light, as the sparkle in the dewdrop unto the sun, even so is that which is true unto the truth.

For he that is of the light receiveth light, and he that is true receiveth the truth.

Whosoever hath the truth hath it unto himself and not unto another.

For behold, he giveth and another taketh, yet nothing is lost, for he that giveth receiveth more abundantly for his giving.

Marvel not if the world deceive you, yet the truth cannot deceive you.

The truth offereth bonds and it giveth freedom; it offereth weariness and giveth rest; it offereth sorrow and giveth joy; it offereth death and giveth life.

Whatsoever giveth life the same is life.

Whatsoever maketh true the same is true.

Many shall come in the name of Truth, and men shall say, Lo Truth is here, or lo it is there.

If they say, It is in the market-place, go ye unto the mountains; but verily I say unto you, ye shall seek and shall not find:

For it is neither in the mountain nor in the market-place; it is neither here nor there; it is neither far nor near; it is neither high nor low; it is neither great nor small.

With truth there is neither time nor place, but all times and places.

It is not in the act, but in the end; it is not in the end, but in the path; it is not in the path, but in the aim.

But if thou sayest, It is in the aim, beware lest the thought of thy heart deceive thee.

For if the aim be not true, the path will not be true. And unless the path be true there can be no truth in the aim of a man—aim he never so wisely.

Neither say ye, If the truth be in the end, the act profiteth nothing; for verily the act sanctifieth the end, and if the act be true the end justifieth the act.

For out of the good treasure of the heart man seeketh the good; and surely goodness shall follow him all the days of his life.

As the light shineth from the east even unto the west, so shall the coming of Truth be.

For the trumpet shall sound and the true shall be raised incorruptible, and ye shall be changed.

But though the trumpet sound, the truth is not in the sound. Though the angel speaketh, the truth is not in his words.

If ye be true, seek the truth, and ye shall surely find it; for if the truth be in you ye shall find it everywhere.

It is a diamond out of the dunghill, and a pearl out of the mire.

Peradventure ye shall ask of me which man among you is most religious? Verily I say unto you, it is the vile person who yet sinneth not.

And that man is bravest who feareth most, and yet standeth fast.

He is most chaste who is most passionate; and he hath most charity who giveth while yet he is tempted to keep.

Marvel not that I say unto you, ye cannot serve Truth and Evil, God and Mammon.

For verily I say unto you, Satan is the god of the flesh and of the lusts thereof; but God is the God of Spirit.

And no man knoweth the spirit of a man save God only, and him to whom the spirit hath been revealed.

Knowest thou not, O Pilate, how I gave wine unto the company at the marriage-feast in Cana?

And yet I say unto all, No drunkard shall enter into the Kingdom of Heaven.

For there shall be wine so long as the world endureth.

Verily I say unto you that ye obey the law given upon Sinai unto our father Moses. Remember the Sabbath day to keep it holy.

But I say also that it is lawful to do good upon the Sabbath day, for man is lord also of the Sabbath.

For there shall be Sabbaths so long as the world endureth.

Again I say unto them that be servants that they serve not with eye-service nor with lip-service.

And to the masters I say that they hold not back by fraud the hire of them that reap down their fields, but forbear threatening.

For masters there shall be and servants so long as the world endureth.

Again I say, marriage is honorable; but woe unto him who is an adulterer.

For marriage shall be so long as the world endureth.

Till God shall restore all things unto himself, when he shall put down all rule and all authority and power even by the Spirit of Power.

For God is that Spirit, even the Spirit of Truth,

which was, and is, and is to be; which cannot lie; which cannot change, but is the same yesterday, to-day, and forever.

Nothing of itself is false; nothing of itself is common or unclean. What the truth cleanseth that call not thou common.

And God cleanseth not the outward things, but the spirit within you, as ye yourselves will, that ye may become like unto His own glorious spirit.

According to the working of that power whereby he is able to subdue all things unto himself.

And I bear witness unto the truth, and I am the truth, and as I am so may ye be also.

For every one that is of the truth heareth my voice and believeth.

And he that believeth me, though he were dead, yet shall he live.

And he that believeth loveth; and he that loveth shall live.

For he that hath love hateth no more; and he that knoweth the truth feareth no more, neither dieth any more; for death hath no more dominion over him.

THE FUTURE OF ISLÁM.[1]

BY MAULVÍ AZÍZ-UD-DÍN AHMAD, OF LUCKNOW, HINDUSTÁN.

What is Islám? Muhammad's religion by its followers is called *al-Islám,* which means entire *surrender* of the will of man to God. It is the only religion in the world which is not named after its founder. To the adherents of Islám the word Muhammadanism is offensive.

The substance of Islám is found in the Qurán, which implies a Reader. Muhammad taught the *Reader* piecemeal to his disciples who about twenty-two years after his death compiled it into a volume and accepted it as the inspired and infallible word of God. The inspiration of the Qurán is entirely *verbatim* and not *ideal.* The Bible, according to the Christian belief, is composed of both and indeed the third element, the *additional,* but the book of Islám is believed to be the dictation of the eternal Word by the angel Jibríl (Gabriel) to Muhammad. The Prophet was only the instrument, as the tongue or pen is to the thinker. Practically the Bible of the Muhammadans is also divided in three portions, the *Qurán,* the *ideas* or traditions of Muhammad and his successors, and the *additions* by the Lawyers of Islám. Islám is not an idol but its *vita* is capable of growth and development.

The founder of Islám was Muhammad, son of Abdulla. Christians often misspell the name of the Arabian Prophet. In Arabic it is spelled with four consonants "M*h*md," the second m is doubled, d is pronounced not as in English but as in Italian or any other European language, *h* has the power of four, "h's" as uttered in *h*e—deep from the throat. This *h* is in none of the non-semitic or non-hamitic languages, and can be learned only from one able to utter it. First syllable *Mu* is of the same kind as in *moo*n, only shorter; both "a's" are uttered as in *A*meric*a.* Most of his followers pronounce the name Mohammad, giving to o the sound in p*o*lite and uttering h as in English *h*at. Turks named Mu*h*ammad and A*h*mad out of respect to their Prophet prefer to spell it in English Muhammed or Ahmed.

A*h*mad is the name under which Mu*h*ammad claimed that Jesus Christ foretold his coming—"And remember when Jesus, the son of Mary, said, 'O children of Israel! of a truth I am a God's Apostle to you to confirm the law which was given before me, and to announce an apostle that shall come after me, whose name shall be A*hmad.*'"—Qurán, lxi, 6. Mu*h*ammad signifies *praised* or *glorified one.* Muhammad maintained that Jesus Christ had promised according to John xvi, 7, Periclytos (περικλυτος = A*h*mad) and not Paraclétos (παρακλητος = advocate or helper):—"Nevertheless I tell you the truth; it is expedient for you that I go away: for if I go not away, the Comforter will not come unto you; but if I go, I will send him unto you." Sir William Muir thinks that in some imperfect Arabic translation of the Gospel of St. John the word *paraklētos* may have been translated *Ahmad* or *praised.* (*Life of Mahomet,* Vol. I, 17.)

The character of Muhammad is thus described by his widow A'yisha to her questioning friends: "He was a man just as yourselves; he laughed often and smiled much."

"But how would he occupy himself at home?" the questioners ask.

"Even as any of you occupy yourselves. He would mend his clothes, and cobble his shoes. He used to help me in my household duties; but what he did oftenest was to sew. If he had the choice between two matters, he would choose the easiest so that no sin accrued therefrom. He never took revenge excepting when the honor of God was concerned. When angry with any person he would say, 'What hath taken such a one that he should soil his forehead in the mud!'

"His humility was shown by his riding upon asses, by accepting the invitation of his slaves, and when mounted, by his taking another behind him. He would say: 'I sit at meals as a servant doth, and I eat like a servant'; and he would sit as one that was always ready to rise. He discouraged (supererogatory) fasting, and works of mortification. When seated with his followers, he would remain long silent at a time. In the Mosque at Madína they used to repeat pieces of poetry,

[1] Pronounce the vowels as in Italian or as the italicised vowels of the following words: *a*f*á*r, *i*n, mach*i*ne, p*u*ll, r*u*le. These are the only vocables in the classical Arabic.

and tell stories regarding the incidents that occurred in the 'days of ignorance,' and laugh; and Muhammad listening to them, would smile at what they said.

"Muhammad hated nothing more than lying; and whenever he knew that any of his followers had erred in this respect, he would hold himself aloof from them until he was assured of their repentance."

His speech. "He did not speak rapidly, running his words into one another, but enunciated each syllable distinctly, so that what he said was imprinted in the memory of every one who heard him. When at public prayers, it might be known from a distance that he was reading by the motion of his beard. He never read in a singing or a chanting style; but he would draw out his voice, resting at certain places. Thus, in the prefatory of a Sûra, he would pause after *bismilláhi*, after *ar-Rahmán*, and again after *ar-Rahím*."

His gait. "He used to walk so rapidly that the people half ran behind him, and could hardly keep up with him."

His habits in eating. "He never ate reclining, for Gabriel had told him that such was the manner of kings; nor had he ever two men to walk behind him. He used to eat with his thumb and his two forefingers; and when he had done, he would lick them, beginning with the middle one. When offered by Gabriel the valley of Makka full of gold, he preferred to forego it; saying that when he was hungry he would come before the Lord lowly, and when full with praise."

His moderation. "A servant-maid being once long in returning from an errand, Muhammad was annoyed and said: 'If it were not for the law of retaliation, I should have punished you with this toothpick!'"

Outlines of Muhammad's life. Muhammad was born at Makka on August 20th, 570 A. D. He was the posthumous son of Abdulla by his wife A'mina. He belonged to the family of Háshim, the noblest section of the Arabian tribe of Quraish, said to be directly descended from Ishmael, son of patriarch Abraham. The father of Abdulla was Abdul Muttalib, who held the high office of custodian of the Arabian temple Ka'ba. Immediately upon his birth his mother, A'mina, sent a special messenger to inform Abdul Muttalib of the news. The messenger reached the chief as he sat within the sacred enclosure of the Ka'ba, in company with his son and principal men, and he arose with joy and went to the house of A'mina. He then took the child in his arms, and went to the Ka'ba, and gave thanks to God. The Quraish tribe begged the grandfather to name the child after some member of the family, but Abdul Muttalib said, "I desire that the God who has created the child on earth may be glorified in heaven," and he called him Muhammad, "the praised one."

When Muhammad had reached the twenty-fifth year, he entered the service of Khadíja, a rich widow of Makka whom he married soon afterward, and though she was fifteen years older than himself yet all the days of her life he remained a faithful monogamist. She died in December of 619 A. D., aged sixty-five. From her daughter Fátima, who married Alí, Muhammad's cousin, are descended that posterity of Saiyads who claim the privilege of wearing the sacred green color. After Khadíja's death Muhammad married ten women.

Muhammad was taught in Makka to worship as many idols as there are days in the lunar year. When approaching his fortieth year his mind was much engaged in contemplation and reflexion. The idolatry and moral debasement of his people pressed heavily upon him, and the dim and imperfect shadow of Judaism and Christianity excited doubts without satisfying them, and his mind was perplexed with uncertainty as to what was the true religion.

A'yisha relates: "The first revelation which the Prophet of God received were in true dreams. He never dreamed but it came to pass as regularly as the dawn of day. After this the Prophet went into retirement, and he used to seclude himself in a cave in Mount Hirá and worship there day and night. He would, whenever he wished, return to his family at Makka, and then go back again, taking with him the necessaries of life. Thus he continued to return to Khadíja from time to time, until one day the revelation came down to him, and the angel came down to him and said, 'Read'; but the Prophet said, 'I am not a reader.' And the Prophet related that the angel took hold of him and squeezed him as much as he could bear, and then said again, 'Read'; and the Prophet said, 'I am not a reader.' Then the angel took hold of him a second time and squeezed him as much as he could bear, and then let him go, and said, 'Read'; then the Prophet said, 'I am not a reader.' Then the angel again seized the Prophet, and squeezed him, and said:

"'Read thou in the name of thy Lord who created;
Created man out of clots of blood:
Read thou! For thy Lord is the most beneficent,
Who hath taught the use of pen;
Hath taught man that which he knoweth not.'"

Every Muhammadan child, before he can become a member of a school, must undergo the initiation ceremony, which consists in the youngster's repetition of the above angelic lesson and afterwards sweetmeat is distributed amongst those present.

On the 20th of June, 622 A. D., Muhammad fled for his life from Makka to Madína. The day of his flight, or *hijra*, marks the Muhammadan era, or *Hegira*: A. H.

In A. H. 6, Muhammad conceived the idea of addressing foreign sovereigns and princes, and of invit-

ing them to embrace Islám. Here is his letter to Emperor Heraclius:

"In the name of God, the Compassionate, the Merciful, Muhammad, who is the servant of God, and His Apostle, to Haraql, the Qaisar of Rúm. Peace be on whoever has gone on the straight road. After this I say, Verily, I call you to Islám. Embrace Islám, and God will reward you twofold. If you turn away from the offer of Islám, then on you be the sins of the people. O people of the Book [i. e. Christians], come towards a creed which is fit both for us and for you. It is this, to worship none but God, and not to associate anything with God, and not to call others God. Therefore, O ye people of the Book, if ye refuse, beware! We are Muslims, and our religion is Islám."

He also wrote to the Sháh of Persia, who tore his letter. On hearing the fate of his letter, Muhammad said: "Even so shall his kingdom be scattered to pieces." The king of Abyssinia received the message with honor, and the governor of Egypt sent a polite reply and two beautiful Coptic girls, one of whom the Prophet gave to the poet Hasan and the other he kept for himself. When she gave birth to Ibráhím, a son, he gave her liberty and the position of a wife. And this has become a precedent for all Muhammadans.

After Muhammad had nominally subjugated Arabia, in his last days rebels and apostates disturbed his peace. By far the most powerful of these was Musailima, who wrote Muhammad the following letter:

"Musailima, the Prophet of God, to Muhammad, the Prophet of God. Peace be to you. I am your associate. Let the exercise of authority be divided between us. Half the earth is mine, and half belongs to the Quraish. But the Quraish are a greedy people, and will not be satisfied with a fair division."

Muhammad's reply to the above: "Muhammad, the Prophet of God, to Musailima, the liar. Peace be on those who follow the straight road. The earth is the God's, and He giveth it to whom He will. Those only prosper who fear the Lord."

Muhammad's career was closed on Monday, the 8th of June, A. D., 632. His dying words were, "Lord grant me pardon, and join me to the companionship on high!" Then at intervals: "Eternity in Paradise! Pardon! Yes, the blessed companionship on high!"

Constitution of Islám. Al-Islám is divided into "Faith" and "Practice." Faith consists in the acceptance of six articles of belief:

1. The unity of God.
2. The angels.
3. The inspired books.
4. The inspired prophets.
5. The day of judgment.
6. The decrees of God.

Practical religion consists in the observance of:

1. The recital of the Creed: "There is no deity but God, and Muhammad is the messenger of God."
2. The five stated periods of prayer.
3. The thirty or twenty-nine days' fast in the month of Ramazán.
4. The payment of the legal alms.
5. The pilgrimage to Makka.

A belief in these *six* articles of faith, and the observance of these *five* practical duties constitute Islám. He who thus believes and acts is called a *Mumin* or "believer"; but he who rejects any article of faith or practice is a *Káfir* or "unbeliever."

The Present State of Islám. At first Islám spread itself rapidly with the Arabian political extension. At present its success amongst the Polynesians, Malays, Mongolians, Indians, Africans, and Europeans is due almost exclusively to its inherent virtues. Islám is separable from Muhammad as Christianity is not from Christ. In Christendom more Christians are converted to Islám than Musalmáns become Christians. Again, in purely Islám lands no Muslim may change his religion. In heathen lands or neutral grounds where two faiths are rivals Christianity sadly fails.

What is Christianity? Christianity contains all that is good in all religions and adds to that the personality and peculiar teachings of Christ; namely, that salvation is through faith in Jesus' sacrifice on Calvary and in the doctrine "Love your enemies."

The failure of Christianity to add heathen nations to the kingdom of Christ is through the half-heartedness of the Christians, who neglect alike to love friends, neighbors, and enemies. From the self-love on the part of Christians is the eminent danger to the religion of Christ. Money is collected for the love of Christ and heathen, and nearly all of it is squandered on people that neither love nor understand the heathen. Christians who boast of doing so much for the heathen, when they see one at home seldom show him Christian charity. In America the aborigines, the negroes, and the Mongolians are treated with unchristian prejudice, which is unknown amongst the followers of Islám. England, too, cares not for heathen at home unless they be rich. Of the 310 Indian gentlemen in England not one studies theology. Christianity as professed and practised by the missionaries, socially degrades a convert who is outcasted without finding brotherhood amongst those who induced him to accept Christianity. The missionary is ever an alien, and never equal socially with the convert. In the mission field he keeps the convert subordinate with the energy worthy of a Hindú Brahmin. If a convert happens to visit Europe or America, as a rule, the missionaries' influence is ever arrayed against him, for it is

feared that the convert's reports or his answers to friends in America and Europe may not tally with the reports of the missionaries. Converts may not qualify themselves as missionaries, and if they do in vain may they ask for an appointment from any missionary society.

The future of Islâm is insured by the humanity or kindness of its followers towards one another. Colleges are open to all. No caste, no distinction of race. One God, one people. There is more self-sacrifice and less paper boast with the propagation of Islâm than of Christianity. In England Englishmen represent and spread Islâm, and at the Religious Parliament not an alien, but an American of Americans, represented Islâm. Progress of Christianity will be retarded until Christians do likewise.

MARRIAGE SERVICES REVISED.

Since it frequently happens that unchurched people are at a loss how to perform the marriage ceremony in a dignified and appropriate way, so as to preserve all that is true and good in the traditional formulas without retaining expressions which implicitly contain a concession to dogmas no longer believed, we propose wording the service as follows:

Dearly beloved, we are gathered together here in the face of this company, to join together this man and this woman in holy matrimony; which is not by any to be entered into unadvisedly or lightly; but reverently, discreetly, advisedly, soberly, and conscious of the great responsibility that it implies. Into this holy estate these two persons present come now to be joined. If any man can show just cause why they may not lawfully be joined together, let him now speak, or else hereafter forever hold his peace.

(Addressing the couple.)

I require and charge you both, that if either of you know of any impediment, why ye may not be lawfully joined together in matrimony, ye do now confess it. For be ye well assured, that if any persons are joined together otherwise than as the law of our institutions doth allow, their marriage is illegal.

(Addressing the groom.)

M., wilt thou have this woman to thy wedded wife, to live together in the holy estate of matrimony? Wilt thou love her, honor, and keep her in sickness and in health; and, be faithful unto her, so long as ye both shall live?

(The groom shall answer: "I will.")

(Addressing the bride.)

N., wilt thou have this man to thy wedded husband, to live together in the holy estate of matrimony? Wilt thou cherish and care for him, love, honor, and keep him in sickness and in health; and be faithful unto him, so long as ye both shall live?

The bride shall answer: "I will."

The groom says:

I, M., take thee, N., to my wedded wife, to have and to hold from this day forward, for better, for worse, for richer, for poorer, in sickness and in health, to love and to cherish, till death us do part; and thereto I plight thee my troth.

The bride says:

I, N., take thee, M., to my wedded husband, to have and to hold from this day forward, for better, for worse, for richer, for poorer, in sickness and in health, to love and to cherish, till death us do part; and thereto I give thee my troth.

Then shall the minister speak unto the company:

This is an institution ordained in the very laws of our being, for the welfare of mankind. To be true, this outward ceremony must be but a symbol of that which is inner and real,—a sacred union of hearts. There must be a consecration of each to other, and of both to the noblest ends of life.

Believing that in such a spirit as this and with such a purpose you are here to be wedded to each other, come now, change rings, and join your right hands.

Marriage is no mere private affair which concerns the bride and the groom only; it is a social act and it is sacred for it involves all who are near and dear to both of them—nay, it involves all mankind, of the present and past, and, above all, of the future. Therefore, remember that we stand here in the sight of the noblest ideals and the tenderest relations of humanity; and we sanctify the intentions of these two loving hearts in the name of that omnipotence in whom we live and move and have our being.

Forasmuch as M. and N. have consented together in holy wedlock, and have witnessed the same publicly before this company, and thereto have given and pledged their troth, each to the other, and have declared the same by giving and receiving a ring, and by joining hands; I pronounce that they are husband and wife.

BOOK NOTICES.

A New Bible and Its New Uses, by Joseph Henry Crooker, (Boston, George H. Ellis, 1893, pages, 286,) is a popular *résumé* of the facts and reasons that have led to the rehabilitation of the Bible as a literally inspired document and absolute religious authority, with a discussion of its possible uses as a new spiritual power. The book will be helpful to the general reader unfamiliar with the subject and to beginners. With Mr. Crooker's criticisms much reverence and piety are mingled.

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