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THE KINGDOM OF PROTISTA.¹

BY PROF. ERNST HAECKEL.

SIGNIFICATION.

By *protists*, or simple-celled beings, we understand all organisms that do not form organic tissues. Opposed to them are the *histones*, or multicellular organisms, which do form tissues.² In the latter, large numbers of cells are always united together, so as to accomplish common aims by concerted effort; these have received by the resultant division of labor different forms. In the great majority of protists the developed organism retains for life the formal value of a simple cell; they are permanent monobionts.³ Nevertheless, in many classes of the protist kingdom we meet with the beginnings of social organisation : many cells of the same kind remain united together and form a *conobium*—a cell-mass, cellular colony, or cellular society. By the establishment of a division of labor among the associated cells of such combionts, the first transition to the histones is effected, all of which are originally sprung from the protists.

Whilst the double kingdom of histones is universally divided into two large main groups, the plant and animal kingdoms, the corresponding division of the protist kingdom encounters serious obstacles. In the taxonomical⁴ practice of the day, one half of the protist kingdom, that in which the nutritive changes are vegetable, is, without exception almost, classed with the plant kingdom; the other half, in which the nutrition is animal, with the animal kingdom. In the biological text-books the first is commonly treated by the botanists, the second by the zoölogists. But although this classification conforms to tradition and the established division of labor between botany and zoölogy, and in all likelihood will long be retained in practice, yet in a phylogenetic point of view it is fundamentally untenable.

THE PLANT AND ANIMAL KINGDOMS.

The customary and traditional division of the organic world into the two kingdoms of plants and animals was attended with no difficulty as long as biolog-

2Histone, from a Greek word meaning web, or tissue,-Tr.

 3Monobionts , leading solitary lives.—Tr.

4Taxonomical, relating to classification .- Tr.

ical research restricted itself exclusively or chiefly to the histones—to the higher multicellular tissue-building organisms. On the one side the plant-kingdom from the $\mathcal{A}lgw$ up to the angiosperms appeared to the botanist as a perfect natural unity; on the other side, zoölogists also found no difficulty in defining and circumscribing the animal kingdom in a consistent manner, although the multiplicity of its main groups and the differences between the lower infusoria and the higher animal groups were much greater.

Matters took a different turn, however, from the beginning, and especially since the middle of the present century, when our knowledge of the lower animal forms was extended and made more thorough. Since 1838, especially, when the cellular theory was established, and shortly afterwards, large numbers of lower organisms were proved to be permanent unicellular forms, the sharp traditional division between the plant and animal kingdoms has been greatly obliterated and is now only artificially tenable. True, a large number of lower plants were with little or no thought left by the botanists as "unicellular Alga" in the extensive class of Alga. But the acuter zoölogists regarded it as impossible, as early as 1848, to leave the unicellular protozoa (infusorians and rhizopods) in the traditional way among the Worms or Zoöphytes as the lowest animals; the protozoa were separated from the remaining animal types and made an independent type. Extremely grave difficulties, on the other hand, resulted, for the more rigorous limitation of the protozoan type, from the fact that numerous unicellular organisms were known which form a perfect transition from the animal to the plant kingdom and unite in themselves the characters of the two great kingdoms, or show them alternately in different periods of their lives. In vain the attempt was made in numerous essays to establish a sharp and definite limit between the two kingdoms.

A new direction was given to all these attempts when the theory of descent was introduced as a controlling principle of explanation into biology (in 1859), and the import of the "natural system" as a genealogical tree of organic forms was recognised. When we ourselves undertook in 1866 the first attempt to solve this grand problem, now clearly stated, and to

¹ Being §§ 35-38 of the new Phylogenie,

arrange the main large groups of the animal and plant kingdom phylogenetically as natural types, we arrived at the conviction that in the two large kingdoms most of the groups formed phylogenetic unities and that all classes could be traced back to a few or perhaps to a single ancestral group, and that in addition to them there still remained a large number of the very lowest forms of life which could not be distributed without arbitrary violations either in the animal kingdom or in the plant kingdom. For these lowest natural and mostly unicellular organisms we founded our kingdom of *Protista*.

We were put in a position to give a sharper delimitation of our Protist kingdom after we had found in 1872 in our gastræa1 theory a means of sharply distinguishing by clear definitions unicellular protozoa from multicellular metazoa. The protozoa, or "primitive beings," are either simple cells or loosely joined communities of cells (comobia), that is "individuals of the first or of the second order"; they possess no intestinal passage, and form no blastoderms nor tissues. The metazoa, or tissue-animals, are multicellular creatures which in the developed condition appear as persons or cormi (as "individuals of the third or fourth order "); they possess a nutritive intestinal cavity and form blastoderms and tissues. As all metazoa develop individually from one and the same germinal form, the gastrula,² we may also derive them phylogenetically from a corresponding ancestral form, the gastræa. The hypothetical gastræa must itself have preceeded from a branch of the protozoa; on the other hand the great majority of these unicellular animals (especially rhizopods and infusorians) belong to independent stocks and possess no direct connexion with the metazoa.

Far more difficult than this natural division of the animal kingdom into protozoa and metazoa is the corresponding division of the plant kingdom into Protophyta and Metaphyta (1874). Here, too, the same essential difference subsists, in principle. The protophyta or "primitive plants," are mostly permanent simple cells. Even when connected together in societies of cells, or comobia, they form no tissues, no true "thallus." The metaphyta, or tissue-plants, on the other hand, form a multicellular parenchyma or tissue, which in the lower metaphyta (in most of the thallophyta) assumes the indifferent shape of the thallus, and in the higher metaphyta (in the cormophyta) the differentiated form of the culmus or cormus. On the other hand, the transitional forms between the tissueless protophyta and the tissue forming metaphyta

are more numerous and continuous than those between the protozoa and metazoa. Here, as there, accordingly, we shall have to establish ideally in our "natural system" some sort of artificial limits. In the plant kingdom, however, this unavoidable logical border-line will appear more artificial and forced than in the animal kingdom. To fix that barrier and to reach a just appreciation of the differences between protophyta and protozoa it will first be necessary to show clearly the relationship between *Plasmodoma* and *Plasmophaga*.

PLASMODOMA AND PLASMOPHAGA.

All attempts at discovering a definite morphological, anatomical, or ontogenetic character for distinguishing the plant kingdom from the animal kingdom have failed or proved themselves utterly hopeless; for numerous protists exhibit such indifferent morphological characters, or show such neutral relations to the two great kingdoms, that they can be ranked with neither without violence. It is different when we turn to the significant *physiological* difference between the two kingdoms, upon which rests the constant preservation of equilibrium of all organic nature. The plants are *Plasmodoma*, or plasma formers (*Plasmatecta*). They exhibit synthetic metabolism,¹ and under the influence of solar light, possess the power of manufacturing plasson or plasma from simple and solid inorganic combinations. The very lowest plant-cells, if they are truly such, know how to build up by this synthesis the complex albuminous bodies or nitro-carbonates which are known to constitute the indispensable material substratum of every active vital activity, without exception. The animals, on the other hand, are Plasmophaga, or plasma-destroyers (*Plasmalyta*). As they do not possess the plasmodomous power they must draw their plasma directly (as herbiverous animals) from the plant kingdom. In performing the acts and functions of life, and in oxidising their tissues, they break up the plasma and decompose it again into the simple inorganic unions out of which the plants originally composed it (water, carbonic acid, ammonia, nitric acid, etc.).

The analytic nutrition of the animal kingdom is fundamentally opposed to the synthetic nutrition of the plant kingdom. It is, moreover, of the greatest importance, as the opposed modes of transformation of energy in the two great kingdoms of inorganic nature by means of it are closely connected. The plants are *reduction* organisms and transform the kinetic energy of the solar light by reduction into the chemical potential energy of organic combinations, by absorbing

 $^{^1}Gastraa,$ the hypothetical ancestral form of all multicellular or metazoic animals.— Tr_{\star}

 $^{^{2}}Gastrula$, a common germinal form in metazoa. From its presence in different metazoic types Haeckel deduced his gastræ-theory.-Tr.

¹ Metabolism.—For this uncouth English word, in German the simple term Stoffwechsel is used, which means literally change or transformation of substance, referring to the chemical changes in the body accompanying nutrition, as assimilation and dissimilation.—Tr.

carbonic acid and ammonia, and eliminating nitrogen. Conversely, the animals are *oxidising* organisms. They transform the potential energies of organic combinations into the kinetic energy of heat and motion (molecular and nervous work), by taking in nitrogen and eliminating carbonic acid and ammonia. Accordingly, the difference between the two great kingdoms of organic nature is essentially a physiologico-chemical difference, and rooted in the chemical constitution of its plasma. The reducing and carbon-assimilating or plasmodomous phytoplasm is just as characteristic of animals as the oxidising and non-assimilating or plasmophagous zoöplasm is of plants.

Two results of the highest significance for phylogeny flow from these chemico-physiological relations: (I) the plant-organism with its synthetic vegetal metabolism is older than the animal organism with its analytic animal metabolism; for reducing *phytoplasm* alone could originally (at the beginning of organic life) and directly arise by archigony from inorganic combinations. (2) The younger animal organism proceeded secondarily, as it were, from the older plant-organism; for the oxidising zoöplasm of the first could arise only secondarily from the phytoplasm already existent being effected by means of that significant change in the organic metabolism, which we shall denote by the single word *metasitism*, or change of nutrition.

METASITISM.

By metasitism, or metatrophy, (change in mode of nutrition,) we understand that important physiologicochemical process which may be briefly defined as the historical transformation of the synthetic phytoplasm into the analytic zoöplasm. This significant process, a veritable "reversal of the primitive and original metabolism" was polyphyletically¹ accomplished, and independently at different times in different groups of plants; for not only do many lower but also numerous higher groups of plants show individual forms, which have acquired metasitism by functional adaptation and transmitted it by progressive heredity to their descendants, who thus gradually acquired entirely different physiological and morphological properties.

Now, this change in the mode of nutrition is of the highest importance for the protist kingdom, because it has plainly repeated itself here many times since the primordial epoch. In the very oldest and lowest group of moners, whose simple plasma-body possessed no nucleus, we find by the side of carbon assimilating phytomoners, non-assimilating zoömoners. The individual groups of the synthetic protophyta correspond, for the most part, so perfectly with the individual divisions of the analytic protozoa that the polyphyletic

1 Polyphyletically, in several lines of descent .- Tr,

origin of the latter from the former is unmistakable. Numerous examples of this might be stated, tending to demonstrate that all true protozoa, being plasmophagous, are originally derived from protophyta, which are plasmodomous.

It would be the phylogenetic task, then, of a true natural system of *Protista*, to make this polyphyletic process clear in all its details, and to demonstrate the descent of the individual protozoan groups from their protophyte ancestors. But the complete solution of this highly complicated task appears utterly hopeless, as here, more than elsewhere, the incompleteness of the phylogenetic facts is extremely great.

BYRON.

BY F. M. HOLLAND,

Lowell says in the *Fable for Critics*, that the depths of Bryant's heart would have opened to the man who could have palmed himself off for a mountain; but this might have been said even more justly of the poet who was among the first to teach Europe the grandeur of those

> ¹¹ Palaces of Nature, whose vast walls Have throned Eternity in icy halls Of cold sublimity.¹²

Bryant's favorite mountains were the Berkshire Hills, whose summits give such views of green forests and quiet, happy villages, as reward the climber with an expanding heart and kindred with a loftier world. Byron's spirit expanded with the sight of the glacier and the sound of the avalanche. He could not climb above them, as he lets his Manfred do in desperate misanthropy. He could only look beyond them to peaks ever white with the snows of centuries, but he always saw them with "a loving eye," as he represents the imprisoned patriot, Bonivard, looking from the dungeon's little window at Chillon. Nothing is more characteristic of Byron than the "fierce and Iar delight" in which he becomes "a portion of the tempest," among "the joyous Alps," at night, and shares the "mountain-mirth." What Bryant says of "The Hurricane" is comparatively tame; and his "Hymn of the Sea" pictures the ocean in much milder aspects than those famous lines which close "Childe Harold." No one has written more fitly of "The Gladness of Nature "; but to read about its grandeur we must turn to Byron. It is he who has taught our century to love the mountains, which its predecessors found merely dangerous and disagreeable.

How little there was of narrowness and misanthropy in his delight in nature, is proved by the full perception of the majesty of architecture and sculpture, shown in the last canto of "Childe Harold," and also by the mighty power of his narrative and dramatic poems. His giving his life to help to make Greece independent is one of many instances of that "passionate feeling for mankind," of which John Morley says: "It was this which made Byron a social force." How mighty that force was may be judged, not only from the final triumph of republicanism in France, as he predicted, but from the speedy success of the movements for Catholic emancipation and parliamentary reform, which he advocated in the House of Lords. Venice has found more fortunate champions than the Doge whom Byron praised for dying to set the people free. His zeal for reform and freedom might justify comparison with Whittier; we could not say justly of Byron what Lowell did of Bryant:

"There's no doubt but he stands in supreme ice-olation."

One of the points where both the American poets differ most plainly from Byron is religion. For him the Church was only a Niobe, weeping over her perishing tithes. The main theme of "Cain, a Mystery," is the difficulty of reconciling the sin and suffering in human life with the goodness of "the prayer-exacting Lord." The first draft of "Childe Harold" denied the probability of immortality, (see note on Canto II, Stanza 8,) and the poet's own philosophy, if he had any, may be detected in the speech ascribed to the demon in "The Deformed Transformed":

> "This is the consequence of giving matter The power of thought. It is a stubborn substance, And thinks chaotically, as it acts, Ever relapsing into its first elements."

Byron's irreligion was increased by indignation at the support of despotism, everywhere in Europe, by the clergy. These and other leaders of public opinion in England were provoked by his political, as well as religious heresies; and his separation from his wife gave occasion for raising such a storm of unpopularity as drove him into life-long exile. This made his poetry not only more hold and fiery than before, but more bitter and licentious. Chastity is largely due to the repression of animal passion by social and domestic authority. Byron's loss of the influence of his wife and sister, with his departure from under the control of English society, led to his falling below even the conventional standard of purity. That standard was much lower then than now, and lower in Italy where Byron sojourned than in England; but he sank lower still. No man, however gifted, can emancipate himself from obedience to society without running great risk of falling below its standard. It is a serious problem how we can let Mrs. Grundy keep us virtuous, without letting her make us timid and commonplace. It is pleasant to turn from the life of Byron to those of Emerson, and Spinoza, of Epicurus, D'Holhach, Bentham, and Bradlaugh, of James and John Stuart Mill. Other great names might be added; but these are enough to show that no one philosophy is the only

guide of genius to virtue. The men just mentioned had this in common, that each loved his own cause too devoutly to indulge in such reckless, indiscriminate satire, as Byron wrote from first to last. Blessed is the man who is loyal to a high ideal.

EDUCATION IN ETHICS.

BY DR R. W. CONANT.

WITHOUT ethics among the common people no civilisation can stand. Valor, knowledge, wealth build a nation, virtue must preserve it. Gloriously have we rounded out the first ascending half of a nation's history, and it seems to us incredible that such glory can ever become as dust and ashes. Yet, spite of it all, we are to-day suffering in common with the rest of the civilised world from a perilous retrograde metamorphosis; the great gifts of civilisation are being turned against it by those who, wittingly or unwittingly, work for its destruction.

At the same time, never was a greater parade made of "rights" and moral law. Rioters do not steal, they only "take that which the world owes them," or "they right the wrongs of the poor," or "they deliver Labor from under the grinding heel of Capital." So sacred are these causes that they sanctify murder, arson, and pillage. This modern phase of brigandage is the most dangerous of all. Now that thousands of men and women have become fully inoculated with the notion that they are really wronged by the present state of society, their belief acquires all the moral momentum which a genuine conviction always imparts. However absurd their ideas may seem, it is a great mistake to underestimate either their sincerity or their force. This constitutes the chief cause for alarm, not poverty, nor ignorance, nor tariffs, nor trusts, but that society is full of moral perverts. Here is the frenzy of 1793, without its excuse.

If an enlightened religious conscience could be made the moral guide of even a majority of men, all might be well, and this argument pointless. But, unfortunately, we are further from such a consummation to day than one hundred years ago, and it is futile to try to blink the fact that the chasm widens daily. Religion alone has failed as signally to cure our sociological ills as that other much-trusted antidote, universal education. Either religion or education without ethics is dangerous. Let us indeed have all the religion and all the education possible, but above and beyond all that the great mass of the people must be leavened by an ethical spirit; they must have clearer moral perception, stronger love of right. For too many "Thou shalt not be found out" constitute all the law and the prophets.

To the Church has been relegated in all ages the inculcation of ethics, under the mistaken notion that

they were in some way sacred and not to be separated from religion. Particularly has this been true in the United States. Sin has been regarded as the outworking of innate and total depravity, a mysterious something originating with the Devil, a necessary corollary of Eden and the Fall, involving an elaborate doctrinal system for purging away the moral disease under the direction of the Church. But this view is narrow, insufficient, and illogical.

That it is insufficient is amply proven by the course of events; that it is illogical may to some minds require proof. Doubtless very many worthy people may be scandalised by the proposition to secularise instruction in morals. Yet there is nothing supernatural nor mysterious about right and wrong, either in essence or origin, as a brief analysis will suffice to show.

The sole standard of right is enlightened conscience, or the moral sense brought to the highest pitch of development by experience, inspiration, and revelation. The moral sense is a product of sociological evolution just as much as the artistic. The beautiful allegory of a sinless Eden of supernaturally pure, heaven-protected beings, of whom we are the degenerate descendants, can no longer be seriously entertained. We know now that man was at first even lower than the beasts, that he maintained a wretched and precarious existence in the pre-historic wilderness, possessed of as much moral sense as a megatherium. But he had what no other creature had: a glow-worm of intelligence, which, flickering almost to extinction, was fanned by the necessities of existence to the contrivance of rude weapons and implements of stone. Slowly and painfully man rose from his sub-brutish condition to the tribal state, and from the tribal and family relations were shed upon his benighted soul the first faint glimmerings of reciprocal obligations and rights. From mutual help in work and war and woe sprang sympathy, and in these two, rights and sympathy, lies the potentiality of the whole moral law, Do unto others as you would that they should do to you.

But antedating both of these, coexistent with man himself, was a third element : worship, modifying the ethical sense ultimately by the presentation of the loftiest motive, and so evolving the religious conscience. But the root of worship was fear. Amid the mysteries and dangers of the pre-historic world, terrified by the play of unseen forces, superstitious fear and worship became an early and ineradicable element of man's nature in the effort to propitiate higher powers.

Here are the three components of the religious conscience—worship, sympathy, and rights; three fair lilies whitening upward from the mire of man's terror, selfishness, and want. This ability to distinguish right from wrong, joined with a wish to do the right "in His name," is a product of evolution like any other high faculty of the soul, a natural and necessary outcome from the premises, man's spiritual nature acting on and stimulated by his environment. Finally Jesus of Nazareth by his supreme sacrifice and matchless precept vivified the torpid and perverted moral sense of that part of the world called Christian.

Pari passu with the evolution of the moral sense proceeds the evolution of sin. For what is sin but a natural propensity indulged or perverted in defiance of the moral sense? Gluttony is over-eating, drunkenness is over-drinking, profanity is worship desecrated, sensuality is sexuality rampant, and so through all the countless variations of wrong which human ingenuity has been able to devise. Vice is simply virtue vitiated. Hence the ethical sense is just as proper a subject for development by secular instruction as the artistic or mechanical.

It is no reflection on the Church that unaided she is unable to make head against the insidious demoralisation which makes the wrong appear the better reason. Too long has the State put forth all its power to develop the mechanical and intellectual and done absolutely nothing for the ethical. The perception of the true, the good, and the beautiful is no more intuitive than arithmetic; it is the fruit of education, both individual and racial, and is the sure and strong foundation upon which the superstructure of religion should be reared. Straightway rise the wraiths of sectarianism and infidelity, and shake their warning fingers! But instruction in ethics need not include instruction in religion, and in the public schools it should not. The sphere of the Church is the pulpit, the Sunday-school, and the family; in the schools it has no place. The fear of State-church has been carried to a dangerous extent; Church and State should be equal allies.

The general character of public-school instruction in ethics may be outlined thus :

It should begin at the beginning, and should be co-ordinate with every study in the course, at least, since it transcends all in importance.

There should be no Sunday-school flavor about it, but the instruction should be on strictly scientific lines, equally as in mathematics.

Special stress should be laid upon the *meanness* of non-moral words and acts. A boy who rather scorns to be considered "good" will resent with all the pride of his nature the slightest imputation of meanness. Instruction in ethics should, of course, be adapted to the grade of the pupil. For the very little folk only the simplest principles and illustrations will be appropriate; but just here the foundations must be laid with special care.

Year by year the subject should be unfolded, until in the highest grades it would be time to explain the basic principles of ethics and their applications in all varieties of human rights and obligations.

According as an object-lesson is always the most effective, so should all instructors be themselves of the highest possible character.

CHAPTERS FROM THE NEW APOCRYPHA.

"His Garment's Hem."

BY HUDOR GENONE.

WHILE Jesus tarried at Jerusalem there came unto the city a certain man from the country beyond Jordan.

Who, having heard of the fame of Jesus, (or had seen his star in the East) had come to Jerusalem for to worship him.

And it came to pass while he went into the gate of the city there stood at the gate a soldier of the Roman band.

And he asked the soldier straightway concerning Jesus, if he knew him.

Then saith the soldier, I have never seen Jesus of Nazareth, whom ye call the Christ; but nevertheless I know him, for I was sick and he healed me; I am the centurion's servant.

Then the stranger, understanding not the meaning of what had been said unto him, went on his way into the city.

And while he stood in the market place there drew nigh unto him a ruler of the Synagogue, whom he also asked if he knew Jesus.

Then answered the ruler, truly if thou hadst known me thou hadst not asked; for I am Jairus, whose daughter was raised as from the dead.

Verily I cannot tell thee his abiding place, but I know him for what he hath done.

Now was the stranger very sorrowful to find none to tell him where Jesus abode; but, as he went on through the streets of the city he met a man rejoicing, and giving thanks.

And he saith unto him, Sir, I would see Jesus; knowest thou where I may find him?

And the man answering saith, I know not where he tarrieth; but this I know that I myself have found him, for whereas I was blind, now I see.

And while he went on his way rejoicing the stranger sought Jesus further;

And when he had come to the uttermost parts of the city there stood a woman in the way;

Her also he asked concerning Jesus.

She saith unto him, Verily I know him, for I had

an issue of blood, and this day drew nigh unto him in the press, and I but touched the hem of his garment and was made whole.

The stranger saith again unto her, Knowest thou where he dwelleth? But she could not tell him:

And he went his way, yet the more sorrowful, and wondering that of all whom Jesus had healed of their infirmities none could say where he dwelt.

Now while he sought it became nightfall, and at the gate of the city a man saith unto him, Seekest thou Jesus, that is called the Christ?

Behold him yonder; for he goeth even now with one of his disciples toward Bethany.

And the stranger beholding Jesus afar off ran after him with great joy, saying, I have found the Christ who shall heal my infirmity; who shall bid me see; I shall touch the hem of his garment.

But the darkness gathered, insomuch that he saw not the way clearly,

And as he.ran he heard a great cry behind him,— Save me, I perish.

Then would he have turned him about to help him who had called.

But he bethought him that if he tarried there the darkness would gather.

And while he tarried again he heard the voice, Save me, I perish.

And he forgot Jesus, and turned his back upon him and ran and came unto him who was in trouble, and he helped him, and put him upon his beast, and he went his way.

Meanwhile the darkness had gathered, and it was night.

And the stranger was sore distressed ; and he lifted up his voice and cried, saying, Woe unto me because I have lost Jesus.

But even while he spoke a being clad in white and shining garments appeared in the way;

And saith unto him, Be of good cheer. Thou hast not lost Jesus, for I am he.

Forasmuch as thou didst hear the voice of thy brother thou didst hear my voice.

Behold now, arise, and go thy way, and thy infirmity shall be healed and thou shalt see.

For whoso helpeth him who is in sorrow, sickness, need, or any other adversity, helpeth me and Him that sent me.

So fulfilling that petition which 1 taught my disciples, saying, Thy kingdom come.

Go ye therefore into all the world and preach this gospel to every creature :

For I am indeed come to preach deliverance to the captive and recovery of sight to the blind;

But wheresoever thy duty is there am 1 in the midst of it.

The Sin of the Nations.

Now, A certain Herodian, who was among them whom Jesus confounded with a penny,

Came unto him privily by night, and saith unto him:

Master, I was with them this day who asked thee if it were lawful to render tribute unto Cæsar;

And I heard thee say, Inasmuch as the penny hath Cæsar's image and superscription that they should render therefore unto Cæsar the things that be Cæsar's.

Behold, the people are despoiled by the publicans; they give tithes of all they possess;

And their masters bear rule over them.

They take reward against the innocent; they deyour widows' houses;

And keep back by fraud the hire of them who reap down their fields.

Tell me, Master, is the penny Cæsar's?

Then Jesus, answering, saith unto the Herodian, Why didst thou not say these things unto me in the day; and why comest thou privily by night?

Verily, I know why thou hast come privily, for thou fearest the powers that be. And the powers that be are ordained of God.

For God is spirit, and giveth to every man the reward of his own doing.

Unto the peaceful He giveth peace; unto the righteous He giveth righteousness; unto the faithful He giveth faith;

And unto the nations also He giveth rulers and governors.

And they shall rule the people with a rod of iron.

For the sin of their slavery is upon them: upon the sinner the sin of himself, and upon the nations their sin.

Lo! now, I say unto thee, seek peace, cleave to righteousness, be ye faithful;

Remember the fatherless; plead the cause of the widow; heal the broken-hearted.

And this is my cause,—the cause of Him that sent me, that I have made mine own:

To point the way, to live the life, and that in me the truth should live.

Lo! the day cometh when the nations shall be purified; when they shall not make war any more, and none shall molest or make afraid.

For with my stripes shall they be healed, and I shall be an example unto them,

In a way they think not, and in a time they wot not of.

But peace shall prevail because of the sword, and mercy shall come because of the death of the just.

For without shedding of blood is no remission of the sin of the nations.

God is not the God of the dead, but of the living. And when my Gospel shall be published among all nations;

The crooked shall be made straight, and the rough ways shall be made smooth ;

And I will pour out my spirit upon all flesh; and in my righteousness shall the nations be exalted.

And I will put down all rule and all authority and power, and God, even the living God that abideth in you, shall be all in all.

BABU PRATAPA CHANDRA ROY.

(Died January 11, 1895.)

We have just received the sad news of the death of Babu Pratapa Chandra Roy. C. I. E., of India, the translator, editor, and publisher of the *Mahabharata*, one of the most enthusiastic and patriotic of Hindus. He died at his residence, i Rajah Gooroo Dass' street, Calcutta, at i A. M. Friday, January 11, in his fiftythird year. The widow of the deceased is anxious to bring the work of her husband to completion, and requests his friends to aid her in this task, which appears to her as a sacred obligation. Unfortunately, there is very little property left besides the honse in which the late Hindu scholar lived and where the office of the Datavya Bharata Karyalaya is located — Any one who is anxious to obtain a copy of the translation of the *Mahabharata* should apply at once, as in a few menths it will prohably no longer be possi ble to supply orders. Remittances should be made to Sundari Bala Roy, i Rajah Gooroo Dass' street, Calcutta.

As to the life of Pratapa Chandra, which is probably little known outside of India, we make the following statement as made by his friend and helpmate Kisori Mohan Gauguli. Pratapa Chandra was horn in Sanko in the District of Burdwan where he received his rudimentary education in Patshala. He came to Calcutta at the age of sixteen and happened to find eraployment with Babu Kali Prasanna Singha, a Hindu millionaire who issued for gratuitous distribution the first Bengali translation of the Mahabharata. The amiability and intelligence of the youth attracted the attention of his master who made him his cashier and showed an unbounded confidence in him. As his work was not hard he watched the progress of his master's translation, who died soon after its completion. With the small sum which Pratapa Chandra had saved he opened a small book-shop, which soon became very popular. Many poor hoys used to visit his shop because he gave them permission to read the books on his shelves. After school hours his shop looked like a little reading-room. After eight years of business, having earned some money, he resolved to issue a new Bengali translation of the Mahabharata which he carried out successfully. At this time some domestic calamity affected him deeply and made him incapable of attending to his business. He roved about without a plan through Northern Bengal. Finding that his edition of the Mahabharata, cheap though it was, was beyond the reach of many of his countrymen, he decided to devote his labors to the education of his people, and in work of this kind to forget his sorrow. Having still on hand about one thousand copies of the Mahabharata, he resolved to give them away to deserving men. But his charity produced a result which he did not anticipate. Some of the recipients sold the volumes to booksellers, who sold them for a higher price than he had originally charged. Taking the advice of some of his friends, he established the Datavya Bharata Karyalaya, and commenced a new edition of the Bengali Mahabharata. Many copies were given away to persons who would not sell them again. Otherwise he charged the low price of Rs. 6, 6 for a copy. The result was that his publishing office became well known in India and many thousand copies of various Indian works

were distributed partly gratis and partly for the mere expense of publishing them. Pratapa Chandra was especially charitable to schoolboys. If any youngster applied for a copy of the *Mahabharata*, in Bengali, Sanskrit, or English, he could never refuse.

Whenever injured by anybody, he never retaliated, firmly convinced that his opponent had been misled by inaccurate information. He always tried to see him and explain matters. If he spoke with anybody for five minutes he would surely make of him a friend for ever afterwards. He was a rigid Hindu in religion. His regard for the sacred books of the Hindu religion, especially the Brahmanas, was unbounded. He also had a high respect for the officials of the government, for he took them to represent his sovereign. The study of the Rajadharma had filled him with the belief that for the happiness of mankind the institution of kings was the principal means, an idea in agreement with passages in the Mahabharata, which represent the king as a portion of the Deity. He frequently complained of the tone of some of the Indian newspapers, both vernacular and English. When officials were censured, he claimed that the difficulties of administration are always great. On the other hand, those English papers that took delight in villifying the character of the natives of India always gave him much pain His services to the cause of literature were officially recognised by the bestowal of the title C. I. E. on him, an honor which he accepted, always thinking that he had not sufficient means to keep up its dignity. He had been ailing for a year, and was confined to his room the last six months. When he saw that his end was approaching his friends gave him hope, but he knew better. His greatest regret was that he could not live to complete his work. On the evening of Thursday, January 10, of this year, his breathing became hard, and he gave notice to his attendants that he would not survive the night. He gave his las directions calmly and without agitation, took leave of his relatives and friends, one by one, and expressed his obligations to the manager of the Karyalaya for the loving zeal with which the latter had served him. His conviction was firm that his many friends and countrymen would never permit his work to be suspended at the stage at which it had arrived. About an hour before his death he asked those about him to chant the name of Hari, telling them that they should not cease till he had expired, and when they commenced the dying man joined with his feeble voice. He then seemed to fall asleep quietly, and the clock struck one when he expired

BOOK NOTICES.

Mr. T. Fisher Unwin, of London, just publishes the autobiography of George Jacob Holyoake in a third and cheaper edition. Mr. Holyoake is an agitator of the ideal type, and his printed reminiscences of the personages and stirring events of his time will rank high among the original materials of history. The title of the volume is Sixty Years of an Agitator's Life. (Two large volumes. Price, 38 6d.)

W. T. Stead, editor of the *Review of Reviews*, will issue monthly an extra penny supplement to the *Review of Reviews*, which is to contain the contents of the various magazines, so as to be a *vade mecum* of the reading public of all classes, and will enable them at once to select such monthlies as will be of interest to them. The *Review of Reviews* appears, Mr. Stead says, when the sale of the monthlies is practically over. The *Review of Reviews* will continue as before, and the supplement, which will not be critical, but simply explanatory, will fill an important want of the reading public.

The English Revolution of the Twentieth Century. A Prospective History. With an Introduction, and edited by Henry Lazarus, author of Landlordism. (London: T. Fisher Unwin. 1894 Pages, 463.) The manuscript of this history purports to be the work of a young man of genius, culture, deep insight, and broad sympathy, but irredeemably the victim of the disjointed economical condition of modern society, whom Mr. Lazarus meets by accident in the slums of London. It portrays the conditions which precede and follow the supposed social revolution of the twentieth century. The history is detailed and rather bulky, and as it is not essentially different from other attempts of this character, the request to read it through before passing a judgment upon it, is rather a severe demand upon a critic's time.

La logique sociale, by M. G. Tarde. (Paris, Félix Alcan, 1895. Pp. 464 Price, fr 7.50.) M. Tarde is known in France, and by scholars of all nations, as the author of several high-class works on comparative criminology and sociology. He is a champion of the views opposed to Lombroso's daring theories, and by the powerful advantages that come from exact juridical training and wide practical experience is a very dangerous an agonist. His work in the field of comparative criminology was recently rewarded by his being called to take control of the French National Bureau of Civil and Criminal Statistics. Perhaps his most widely known work is The Laws of Imitation, in which he sought with much power and ingenuity to reduce the rules of social action to phenomena of imitation-an idea the force of which will be at once apparent. That work shows how the social tissues are formed, rather than the social body; how the social *cloth* is manufactured rather than the national garment. The present work is occupied with showing how those tissues are organised, how that cloth is cut and sown, or rather, how it cuts and sews itself. Formerly, sociology was connected with biology; M. Tarde connects it with psychology. His view is that society is comparable not to an organism but to a privileged organ-to the brain. The social life, he says, is a mighty exaltation of the cerebral life. Sociology is collective psychology. Throughout the whole work I. Tarde's ingenions and suggestive views concerning the laws of imit tion and invention are to be traced as the guiding threads of the discussions. For the general reader, few works on the subject will compare with this for interest. He will find here a wealth of illustration and rare material, appositely grouped, and will come from the perusal of the work with satisfaction and enlarged judgment. μ,

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