SOME MASTER KEYS OF THE SCIENCE OF NOTATION





Mary Everest Boole

LONDON: C. W. BANIEL

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SOME MASTER-KEYS OF THE SCIENCE OF NOTATION

Part I

A TEACHER took a class of little children into the wood, caught a toad and put him into the middle of the group, saying: "Our lesson to-day is to be about toads. But I know nothing about toads; someone else will give you the lesson."

One child said: "I suppose God will give us the lesson." Another interposed: "I think the toad will."

Both children were right. The second represented the materialistic, the first the spiritual, aspect of the same fact. The fact was that the teacher knew, and her class were fast learning, the Science of Notations. This science cannot

SOME MASTER-KEYS

be taught in words. The possibility of learning it depends on a habit of seeing spiritual law revealed in physical fact.

The following series of papers is addressed to such readers as are taking seriously the duty of helping the rising generation to utilise the light thrown by science on problems of mental guidance, and to handle to good purpose those great historic master-keys of the science of notation by means of which the masters of the art of thinking speak to each other across time, space, and the barriers to mutual understanding which are created by differences of heredity, environment and mode of life.

Those who expect to find here either ethical propaganda or spiritual consolation will, it is to be feared, be disappointed. The aim of the present writer is the humbler one of helping a few students to read between the lines of any sort of exhortation or consolation which may be addressed to them, and to judge for themselves whether its tendency is genuinely what it purports to be.

OF THE SCIENCE OF NOTATION

Disappointment also awaits anyone who expects to learn from my mere words. The student must make clear mind-pictures of the objects themselves, let the impression of them soak through his conscious mind, down into his unconscious mind, and rest there till God sends the interpretation "while he sleeps"; not all at once, but at successive stages of his mental development; as much, each time, as he is fit at the time to receive.

For this reason the student had better read only a small portion on any one day, unless he already has some experience in translating the technical notation of one science or art into the terminology of other sciences and arts.

MUSICAL AND ARITHMETICAL NOTATION

Music is written on a stave of five lines. The stave, loaded with notes, gives an idea, true, though not complete or accurate, of the mutual relation of the notes; but gives no indication of the actual pitch of the notes. The composer may have meant them to be taken in the treble, alto, or bass, for all that the score itself conveys. At the beginning of the song or piece, there is a sign called the Clef Signature, which determines the pitch of the notes, the part of the keyboard or register at which they are to be taken.

But some of the notes may be intended to be more sharp or more flat than is indicated on the stave. If so, notice is given by another sign at the beginning, called the Key Signature. If there is no key signature, it is customary to assume that the piece, if rendered on a piano or harmonium, is to be played entirely on the white (or so-called

MUSICAL AND ARITHMETICAL NOTATION

"natural") keys, except where otherwise specially indicated in the stave itself. Be it observed that the so-called "natural" notes are no more natural than the flats or sharps; the general public think they are so because they are called so; but the whole arrangement is a matter of pure convention and general taking for granted.

Well, now let us imagine the case of a beautiful tune written in the key of E, which should have four sharps in its key signature. And suppose it were desired, for some reason, to make the public dislike that song. All that would be necessary would be to cause it to be printed without a key signature, or with an incomplete one which expressed one, two, or three sharps only.

The general reader would try over the tune, taking more of the notes natural than the composer intended (or, if there were no key signature, taking all the notes natural); would find the tune jarring and ugly; would throw it aside and think no more about it. A musical expert would see at once that something was wrong with the key signature; and would, in a very few minutes, be

able to tell the true key note. But the general public, not being experts, would fail to do so.

In the case of a musical tune, it is most unlikely that any such trick should be played; there exists no adequate motive. In matters of legislation, politics, and what is known as diplomacy, there is every motive for deception. Musical notation supplies us with a clear indication of how the thing is managed without anyone being convicted of having uttered or written a word that is not true. The public can always be trusted to gull and deceive itself by taking for granted things for which no evidence exists.

A lady once lost her character, for a time, owing to someone writing of her thus: "She drinks; she is no better than she should be; and she hadn't a rag to her back when she married."

Each of the statements was literally true; but the man who received the letter read into them more than was actually said. The writer had omitted to give the key signature—viz., an indication as to whether the words were to be taken in the literal or the slangy sense. For the benefit of those who cannot read music, we will now take an instance from the domain of arithmetical notation.

The figures 725 express number only; they contain no indication of the value of the things numbered. But if we see the mark £ before the number, we know that the number has to do with money; and that some at least of the coins indicated are English sovereigns. The £ may be called the Clef Signature, which shows us vaguely our whereabouts.

The expression £725 may indicate either seven pounds two shillings and five pence, or seven hundred and twenty-five pounds, according to whether the letters s and d are, or are not, written over the 2 and 5 respectively. If they are present they constitute the special key signatures of the figures over which they are written. If a clerk, in copying, should omit the s and d, he changes seven pounds two shillings and five pence into seven hundred and twenty-five pounds. He makes his statement misleading, without making one stroke of the pen which was not in the original, by a

simple omission. What is far more curious is this:
—the omission changes the value of the 7, the key signature of which is truly inserted, to a greater extent than it changes the value of the 2 and the 5, whose key signatures are omitted.

The laws of notation are in some respects best illustrated by a reference to music and to number; because the subject-matter is simple and the symbols compact and small, so that a great many can come at once under the eye. But the laws are universal; they are laws, not of number or sound, but of the machinery by means of which man thinks. Words may be used as notes; so may plants or animals. So also may the facts of history, biology, electricity, or political economy; or any other science. So may any group of provisional working hypotheses. In all departments alike the most successfully enslaving diplomacy is carried on, the most cruel cheating done, not by stating what is false, but by stating truths or hypotheses, and leading the masses to take for granted things not stated and for which they have no warrant, led to captivity and destruction by their own folly and conceit.

THE SPIRAL OF ASCENT

The Spiral of Progress has been a special object of study to the "mad, blind men who see." It is the bête noire of Pharisees and dogged Conservatives; and a butt for the ridicule of those who arrogate to themselves, for the time being, the claim to being the special Party of Progress. The verbal formula which corresponds to it is this: "O Eternal Unity, our Father, may Thy kingdom come; may Thy will be done, on earth, as it is in the heavens, by incessant, orderly revolution."

Those who wish to learn how they may both remain free, escaping the conservatism which is born of fatigue and disappointment, and also remain sane, avoiding the maelström of useless fads, should study, early in life, the sacred symbols of their religion. The student should, in some leisure hour, make a set of "mind-pictures," which

will never forsake him throughout his earthly life, nor, I humbly hope, at the hour of death.

The Spiral has many forms. Perhaps the subtlest and most profoundly instructive is that traced by whirling wind in the dust of the road. Another is the path of a planet in space.

One of the most important ancient master-keys is the serpent; the old symbol of wickedness and of wisdom, of disease and of its cure.

The modern student will better understand what the serpent meant to the ancients if he will first familiarise himself with other forms of spiral more accessible in civilised life. The simplest, the best to begin studying with, is the ordinary spiral wire. Let the student, when he has half an hour to spare, fetch the corkscrew.

If, having read so far, he smiles superior, imagining that no spiritual instruction can possibly be got out of so humble a domestic implement, he has still a good deal to learn before he can know the elements of the science of notation. The true student will think it well worth while to spend a dreamy half-hour in finding out whether

THE SPIRAL OF ASCENT

there is or is not anything to be learned from a corkscrew.

Stand the corkscrew up on end on the table; settle into a comfortable position; take a few long, easy breaths, and look at the screw, with the bodily eyes half-closed, and those of the imagination wide open.

Imagine the screw prolonged to reach the ceiling. Imagine a crowd of microscopic creatures creeping up the screw. Their destiny is to rise from the table towards the ceiling. They have no road by which to ascend, except along the screw wire; and no consciousness of motion except in horizontal directions; e.g., they can recognise north, south, east, west, north-east, etc., but are not conscious of "up" or "down." The inspired among them know, however, that along the wire is their true destiny; the ceiling exerts a magnetism on them all, which the inspired among them feel, and know to be prophetic.

What next? Nothing much. Imagine the discussions that would take place: Is the true direction of progress north, south, east, or west?

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SOME MASTER-KEYS

Is there no such thing as right or wrong? Surely we must draw the line somewhere? If going north was right yesterday, going south cannot be right to-day? Why can we not be consistent? Why not decide, once for all, in what direction we mean to go? If our fathers found out, twenty years ago, that going east was wrong, surely it cannot be right for us to go east now?

And so on; and so on.

Only those can truly interpret the Present who understand the doubts and difficulties of the Past, because they have consciously felt the magnetism of the Future.

SERPENT WORSHIP AND THE SERPENT HORROR

HAVING studied the spiral wire-coil, we are ready for the more complicated structure and movements of the living serpent.

Let us picture an elementary civilisation in a country infested with serpents; some poisonous, others not so. Let us suppose a certain amount of geometric instinct and interest, while as yet appliances are scanty and crude.

Suppose, too, a certain development of spiritual and mystic experience in devout minds.

In such a condition, the serpent symbolises three separate strains of emotion.

To the "practical" section of the community the serpent suggests danger: danger lurking in dark corners, mysterious and subtle. The practical mind would not be prone to make distinctions between the species; it would seem safer to kill all snakes as a matter of course. To the geometrician the serpent coil is the perpetual inspirer. Even now, with all the resources of modern apparatus, the sight of serpent coils unwinding and passing from one lovely curve into another, in the process of rising from the flat form to the ascending spiral, is an unspeakable fascination; what must it not have been in the early times?

To the mystic the corkscrew spiral is the perennial symbol of progress upward by incessant change of direction—the symbol, therefore, of mysterious guidance by means of difficulties and of what we call "evils" and hindrances to progress.

It would no doubt be customary for geometricians, probably also for a certain class of mystics, to keep serpents of the harmless kinds as pets; as perpetual inspirers of thought.

Conceive a mother whose child had died of a snake-bite coming upon a geometrician and a mystic (probably a bachelor) lost in adoration of the serpent-revealer. It needs little effort of imagination to see why she would suppose that they were engaged in paying homage to, and receiving information from, an evil Power.

Some such experience as this must have repeated itself frequently, through many ages, in all snake-haunted districts. It would be talked about in village homes, before the children. Till at last the idea of the serpent as an evil inspirer became imbedded in the nervous tissues of the masses; and took the form of a spontaneous instinct, a physical horror.

This is one type of the way in which such instincts are generated. The divining-rod is another.

"We feel as our ancestors thought, and think as our descendants will feel."

Dowsers, and other people who have special nervous peculiarities, bring down to us, in the automatic action of their brain and nerves, traces of lost knowledge and forgotten methods of study.

¹ A practical well-digger, who now finds water with the divining-rod, tells me that, before he learned the use of that implement, he knew beforehand whether he would find water in the place over which he was digging, by certain symptoms which came on during the process of digging. If these were absent, the well proved to be dry.

THE PATH OF A PLANET

A BODY may be supposed to fly off into space, as it were, by the impulse of its own momentum; it is prevented from entirely yielding to that impulse by the attraction of the sun. The gravitation becomes weaker and weaker, as the planet goes further and further from the focus of attraction; it seems as though the sun must ultimately lose its hold. But, by a mathematical law, the momentum diminishes (as the distance between the planet and the sun increases) even faster than the attractive force does; so that, however strong the original impulse, however eccentric the orbit, the gravitation ultimately conquers the tendency to escape from its influence, and brings the planet back to revolve round the focus. This would necessarily be so; unless, at the part of the orbit where the momentum is weakest, the planet (or comet) comes under attraction from some other

THE PATH OF A PLANET

body. A very slight interference, just then, might carry the lighter body right away from the attraction of the heavier one, never again to return. A body might lead a life apparently lawless, erratic, and unaccountable; but each new departure might in reality be due to some new attraction seizing it when the previous one was at its weakest.

The problem for the educator is: How to interpose a subsidiary attraction.

The canon of safety would seem to be: At perihelion the subsidiary attraction should tend to counteract that of the main attractor, so as to minimise risk of the planet falling into the sun; at aphelion it should tend to cumulate with that of the main attractor, so as to minimise the risk of flying off into space.

THE TREE

THE branching and forking of trees is the great master-key for the study of Evolution by successive differentiations. A suggestion of the use of tree-growths for this purpose is given in the story of A Woodworker and a Tentmaker and in Mistletoe and Olive, pp. 44, 45.

The tree in which the Serpent lay was the tree of knowledge of Good and Evil. The observer perceives how often it happens that, at the same point where one branch is inspired with the desire to deflect to the right, another gets a similar inspiration to deflect to the left. If the branches have consciousness, each must seem to the other to be "going wrong"; yet the whole development and beauty of the tree depend on the existence of these contradictory wrongnesses. There is no use in arguing to prove which is most right or least wrong; the remedy for the feeling

THE TREE

of "wrongness"—supposing the branches to have any such feeling—would be for them to rise to the point of view of the human (i.e., supraarboreal) consciousness, and leave off blaming each other and trying to convert each other.

In Scandinavian legend it is said of the Sacred Tree that its root is the earth and its crown is the heavens.

THE COMPASS

GET a thin strip of iron, pointed at each end; and poise it as a compass-needle is poised. It will lie in any direction in which it is placed.

If you bring, near either point of it, either end of a bar-magnet, that end will be attracted to the bar.

Now magnetise it slightly, by exposing it to a magnetic current, or rubbing it from north to south with a strong magnet. Now, one end will point steadily to the north. If disturbed by a touch or a puff of wind, it will return to the north-to-south direction as soon as permitted.

In imagination, let iron represent flesh, and magnetism, spirit.

Bring near to either end of the strip the opposite end of the bar (north to south, or south to north). You will witness a pantomimic display of psychic attraction. (What, when it takes place

THE COMPASS

between young persons of opposite sexes, we call "falling in love.") Withdraw the bar to a distance, and approach to it the strip, north end to north or south end to south; you will produce what, in a human being, we call a "nerve-storm.' Keep up the storm for a few minutes; then withdraw the bar, and once more bring north end to south, or south to north. You will find that the strip has become de-moralised. It no longer knows its own mind; nor is it faithful to its duty. "Flesh" wars against "spirit," and "spirit" against "flesh" (as St Paul says).

Do not ask me to draw a moral. I am not writing sermons, but showing students how to get for themselves simple algebraic presentations of general laws of Nature. The only moral that I know of is that any teacher who does not play with magnets in some leisure hour is guilty of neglect of valuable opportunities. The magnet is at least as amusing and restful as a farce at the theatre, and has, besides, this advantage: that when once you have the apparatus you can amuse successive groups of pupils, visitors, and

SOME MASTER-KEYS

servants, without further cost. Mine was made for me by a child of nine or ten. The strip is a bit of the spring from a broken old clock. The stand is a stray draughtsman with a hole bored in the middle into which is fastened half an inch of the point end of a rather large sewing-needle. I got two strong bar-magnets for a shilling at a scientific implement maker's. The working ironmonger will give you iron filings of various kinds and degrees of fineness, or sell them at the rate of a farthing per ounce. You will find yourself provided with a source of endless amusement for yourself and friends at the cost of one and fourpence. And when you have learned how to produce with iron the pantomimic display of nerve-storms, moral confusions, and moral obliquities, you will have gone a long way towards finding out how not to produce the realities in the human beings under your charge.

THE MICROSCOPE

THE same principles hold good in the case of that more costly toy, the microscope. Those who only desire to pass examinations in histology, or microscopic zoology, need only look at whatever specimens are put before them by the "coach" or class teacher. But whoever would get from the microscope what it has to give in the way of instruction in psychology and the science of notation should go through the personal experience of collecting the foul-looking slime which gathers round the stalks of waterweeds, and seeing it transform itself, under his eyes, into masses of living harebells (Vorticella), bunches of waving rainbows (Floscule); with the volvox flashing across the field, a bead of white light, scattering more prosaic creatures in all directions and leaving them arranged in new combinations which have no reference to their

own intentions or wishes. He should make clear mind-pictures of what he sees; and then meditate on them as he walks about the slums where possibly some of his own pupils live.

There is no evidence that the ancients possessed optical instruments like ours. But it is certain that the great poets and prophets had somehow the experience of seeing what is repulsive to man transform itself, by a mere change in the mode of looking at it, into the Glory of the Presence of God.

Infinite vision must be both telescopic and microscopic.

Why were human eyes made able to see the lovely things looking like mere brown slime?

Before we can answer that question, we must find the answer to another simpler one. Why were men made to *feel* the earth immovable under their feet and to *see* the sun rising and setting? The shock of surprise which follows on any inversion of our direct impressions is one of the great educative forces which raise man from unconscious towards conscious participation in the Divine life.

PARTIAL SOLUTIONS

In the course of a lesson which I was giving in a home for waifs and strays, we came to the word "blessing," which I explained as "something to be glad of and thankful for." On the next Sunday I revised the ground previously gone over. When I asked: "What does 'blessing' mean?" a small child replied with great unction and an air of profound conviction, "Treacle, ma'am." It was evident that the poor little half-starved waif's imagination had been vividly impressed by the—to her—new phenomenon of plentiful and palatable food.

Such a vivid impression might become the starting-point of one or other of two things—an idolatrous delusion or a true re-velation. The impression might crystallise round the material fact, treacle; in which case the girl's grand-children might be found, some day, telling their grandchildren that, wherever the word "blessing"

occurs in a sacred book, it must mean treacle, and can mean nothing else; and that it is profane and wicked to use it in connection with anything else. Or the girl might be led to connect the word "blessing" not with the material object which aroused her emotions, but with the sense of mystery and wonder and gratitude evoked in her by the material object. In that case, the pleasure of eating treacle, in itself a selfish and merely sensuous one, would become, for her, truly sacramental: a perpetual renewer of the sense of communion with mankind and with the As-Yet-Unknown Good.

"Treacle," taken as the full meaning of "blessing," is idolatry at the small end of the wedge.

A mathematician would, in this child's case, call "Treacle" a Partial Solution of the question "What is a blessing?"

In mathematics, it is always recognised that the use of a partial solution is to assist in finding the general solution. And, lest the first partial one should prove insufficient as a clue, we are glad if another is found independently.

PARTIAL SOLUTIONS

In politics, religion, and the (so-called) "science" of healing we make an "idol" of the first partial solution we arrive at; we contradict the man who finds any other, and try to silence or exterminate whoever suggests a general one.

In politics, etc., we call this "fidelity to our party."

In mathematics we give the sacred "fidelity" to something of quite different nature; viz., adhering "through thick and thin" to the hypothesis on which we are working for the time being, and encouraging others to do the same by theirs, till each has been well tested; till we know the fallacy in each, if it be fallacious, and know also where each is partial and incomplete: mathematical fidelity also includes willingness to confess at once the falseness of whatever we see to be false, the inadequacy of whatever we see to be only partial. It involves also ungrudging willingness to let other students lay together the partial truth that we have discovered and the partial truth discovered by someone else; so that each truth may "cast the error or partialness out of the other."

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3

THE ORIGIN OF RELIGIOUS PERSECUTION

Morro: God made the beast, and saw that it was good; and God said, Let us make man in our image, and let him have dominion over the cattle.—Gen. i. As it was in the beginning it is now, and ever shall be.

The first man who made an implement of iron was employed in digging out roots, to his own great satisfaction, when a wild boar passed by. After some preliminary conversation about the use and merits of the new invention, the boar began to suggest objections. "But, my friend," said he, "what a loss you incur in being deprived of the delight of rooting about in the earth with your feet, or, better still, with your snout!" "H'm," quoth the man, "I've tried it long enough. To tell you the truth, I never found much pleasure in the occupation; that was chiefly why I took so much pains to put myself into

circumstances in which I need never attempt it again." "What!" exclaimed the boar, indignant, "not like contact with the fresh, sweet, motherearth! You lack one of the primary instincts of our common nature." "Perhaps so," said the man; "perhaps you lack another; perhaps it is not given to any individual to have them all. I find such pleasure in standing upright and in being able to gaze at the heavens that I have grown accustomed to that posture; and mother-earth strikes me as rather dirty than sweet." "Fantastic nonsense," said the boar; "do roots grow in the sky? Is it not clear to demonstration that the earth, and the earth only, is the proper object of contemplation for a reasonable creature?" "Yes," said the man; "that is consonant with reason. But, I wonder, is there a higher reason? Who knows?"

"Now, do look here," said the boar; "if you were responsible for yourself alone, you would have a right to go on your own mad road. But who knows that your disuse of the normal instincts may not cause your future progeny to

be born with those instincts lacking or very weak?" "That is what I hope for," said the man softly. "You do, do you? Well, of all the impious schemes! To sacrifice your posterity to your upward-gazing whims! Do you suppose such a change as that can be effected without terrible suffering being inflicted?" "I fear not," said the man; "but——" "Well, but what?" "There must be victims to progress."

The boar felt that the conversation was entering a region foreign to his conceptions. He grunted for a while. Presently he began again. "You don't see where you are going," said he; "I prophesy that you will be the forefather of a race of monsters deficient in all normal instinct, who will use tools such as that in your hand to acquire a hideous and perverted authority over all that lives and breathes. Possibly, in some period of dearth, they may become like tigers, and eat flesh."

The man paused in his work to gaze in silence at the setting sun. When the orb had disappeared below the horizon, he drew a long, quivering breath, and murmured gently, "Ay, it may be even so"; and hasted to make use of the remaining twilight to get the rest of the roots out of the ground.

The boar was too much overwhelmed for further speech. He turned and trotted away. But a generous thought struck him before he had gone many yards. He could, by one resolute effort, stop the whole mischief at its source. He turned and rushed at the man, intending to rip him open with his tusks. The man looked him full in the eyes. For one instant the boar hesitated. That moment's doubt was fatal; the man flung the iron at him, inflicting a wound so deep that it was as much as he could do to get back to the forest.

Next morning the boar called a council of all the beasts to decide what ought to be done. The man would now be on the alert, and, having learnt the use of his tool as a weapon, was not likely to be easily conquered. A severe vote of censure was passed on the boar for having missed his opportunity of putting an end to profane and unnatural proceedings. "What could have caused you a moment's hesitation?" asked the presiding beast. "A doubt that crossed me." "A doubt? Of what? Of the wrongness of allowing this unnatural perversion of instinct, this upward-gazing mania, to propagate itself?" "No," said the boar; "of that, I, personally, never had a moment's doubt. But the question crossed me whether that mysterious Demiurgus, whom no beast has seen, who speaks in thunder, and whose touch we feel in the thrills that run through us when thunder is speaking—whether He favours the upwardgazing posture, and the animals that indulge in it. It was only a momentary fancy, but it paralysed me for the moment, and when I recovered my senses it was too late to act."

So the beasts, not knowing what else to do, passed a law. It should be lawful to believe in the existence of invisible beings endowed with powers superior to those of beasts, but whose aims are strictly on the level of those of brutes. But any beast found guilty of harbouring, even for one moment, the belief in a Demiurgus whose

THE ORIGIN OF RELIGIOUS PERSECUTION

thoughts are not as the thoughts of brutes, should be hunted down without mercy, in the interests of society. And the custom remains in force even to this day. Yet there be mad creatures still, who look for His revealing:—

"We dreamers; we derided; We mad, blind men who see."

A year or two ago, a descendant of the first digger planted a bed of hyacinth roots. A descendant of the boar broke into the garden, and began to turn up the bulbs and eat them. The man and the beast differed in opinion, this time, as to the very use of roots. The man persecuted the beast and imprisoned him in a sty.

When pachyderms are allowed to roam at large over cultivated ground, rings are fitted into their snouts, not in revenge for anything they have done, but in order to remind them not to root up things which are the result of other people's labour and love, and which they themselves do not understand.

THE SINS OF CŒRULEA

The wild pimpernel, which usually bears red flowers with blue centres, sometimes inverts, bearing blue flowers with red centres.

First Scarlet Pimpernel. Oh! dear! oh! dear! Have you heard the shocking news? Cousin Coerulea has put out another flower; and it is just like the former ones: blue with red eyes! How can she be so perverse, and disgrace the family by doing everything topsy-turvy to the way all respectable pimpernels do? I am sure she only does it to annoy us.

Second S. P. Don't be hard on her, poor thing. She must have got a shock to her nervous system when she was a seedling, or perhaps before she was even a ripe seed, and it must have produced inversion.

First S. P. (severely). Secunda, this is dangerous ground that you are venturing on. You are excusing sin — sin against God and His Holy

Law. Was it not ordained, from the beginning of things, that pimpernels were to have *red* corollas with *blue* eyes?

Second S. P. Ah! God's laws! Yes; but do we know quite all about God's laws? Perhaps God made the law that, if a pimpernel gets a shock to its nerves in the seedling stage, it shall become the instrument of punishment to the family which did not prevent the disaster. Perhaps it is only right that she should disgrace it later on.

First S. P. Well, all I hope is that you won't let my children hear you express any of these fantastic and wicked ideas.

Third S. P. Well, Prima, I do think you are too hard on poor Cœrulea. Secunda is quite right; we ought to have charity; none of us know what Cœrulea's temptations may have been; she had not our advantages. But what I can't understand is the attitude of human botanists towards the most serious problems. They seem to take actually more pleasure and interest in Cœrulea's blossoms than in yours or mine.

SOME MASTER-KEYS

First S. P. My dear Tertia! I do hope you are not mixing yourself up with those horrible human creatures. They profess to be of higher evolution than we are; but be sure they have sunk, not risen, from our condition. Believe me, all who profess to be anything more than mere pimpernels are devils.

THE TASSEL

Ir one had a tangled tassel to get straight, it would be vain to pull at a thread here and a thread there while the whole thing was hanging from the wrong end. The first thing to do would be to get hold of the real handle. When one has got hold of that, a slight shake puts nearly everything into order, and a touch here and there makes everything smooth.

Observe, the right strand to catch hold of may look like or unlike the others. [It is usually unlike them.] But the one thing certain about it is that it goes out from the knot, which unites them all, in the direction opposite to that in which all the others ought to hang. In a tassel of human beings, this one is commonly referred to by the others as ab-normal or a-nomalous, which means outside the law. Whatever they call it, as a matter of fact it enunciates the law. It is the exception which proves the rule.

LAMPLIGHT OR SUNLIGHT

A FAMILY LAMP

"Out in the snow the wild wolves are prowling; Mother! O mother! I hear them all howling."

"Do not be frightened, child; mother is near; The door is well fastened, and father is here. Come away from the window; the lamp is alight, The supper is ready, the fire is bright. Come away from the window, my dear."

"But why are they roaming about in the snow? What are they crying for? I want to know. Why don't they go home to their fathers and mothers?

And have nice little games with their sisters and brothers?"

"Come away from the window, my dear.

LAMPLIGHT OR SUNLIGHT

The place for wolves is out in the snow. Why they were put there, none of us know. But the place for you is here beside me. God put you here, as we all can see. Come away from the window, my dear."

"But why are they crying, if that is their place? And look at this nearest one, look at his face! Why are they running so fast in the snow? What are they howling for? I must know. Why are they coming so close to us here? Are wolves ever hungry, mother dear?"

SUN'S LIGHT FOR ALL

"Out in the warm air the grape vine is twining:
See how the sun on the tendrils is shining!
Only last week the bunches were green;
In the shade of the leaves they could hardly be seen;

But now they are turning all purple and blue. Come, little sister, and look at them, do. Come here to the window away from those books; See how lovely and wonderful everything looks."

SOME MASTER-KEYS

"But why did the grapes let their colour come through?

They might hide from the birds if they had not turned blue."

"They are ready and willing to scatter their seed To prepare for the future and meet present need. They are ripe for the change; so they have no

fear.

Ripe fruit likes being eaten, I think, my dear!"

ADONAÏ MALACH

In Jewish ritual, God is spoken of under three titles: Elohim, Jahvê, and Adonaï.

Elohim is plural: it means the organiser of matter, the sum total of creative forces, including gravitation, crystalline force, electricity, heat, terrestrial magnetism, and numerous others, named and unnamed. These forces are presumably various aspects of the same force, but man perceives them differently.

Jahvê is God as revealed in human history; he is the tribal God, the Race-preserver, the Organiser of society.

Adonar is the name officially supposed too sacred to be written. In synagogue prayer-books it is not *spelled*, but represented by a mysterious symbol consisting of two little ticks. It is the name used in invocation.

We talk about the doings of Elohim and Jahvê:

we invoke Adonaï. Adonaï is the spark which descends when two that have been separated meet. Adonaï descends when the ripe stamen touches the pistil; when two birds which have been living through the winter as isolated individuals come together in the spring to make a nest; when two ideas which have seemed to be mutually contradictory come together in a human mind and generate a new conception.

The Jewish ritual consists largely of reading about Elohim, and recitation of the doings and commands of Jahvê; but every now and then this monotonous performance is broken by the solemn affirmation:—

Adonaï reigneth!

Adona' hath reigned!

Adonaï shall reign for ever and ever!

At one time science seemed to rule the world; at another, human laws, religions, and conventions. But whenever and wherever Love appears on the scene, the others have to give way: Love is Lord of All.

TRANSFORMED EQUATIONS

TENTH CENTURY

We are Christians, O my sister,
We believe in One above;
Take this comfort in your sorrow,
God is Love.

All our life here is but sorrow;
All our earthly hopes and cares,

All our wisdom, all our efforts, End in tears.

Only God can we rely on, In Him only dare we trust;

All our friendships and our honours Come to dust.

All we yearn for is illusion; All is futile, all is vain;

Nothing comes of our affections But their pain.

Turn your thoughts then to religion; Leave the sanguine hopes of youth,

Leave the world and its illusions;

God alone is Truth.

SOME MASTER-KEYS

TWENTIETH CENTURY

If our friendships and our efforts bring us little here but pain,

Can we think that such beginnings are but vain? Christ was living with the Father in a heaven of love and trust;

Why need He go seeking friendships in the dust? If He had not trusted Peter, they had both been spared some shame,

Think you either, now, is sorry that it came?

If our friends betray our friendship, we but go where He has gone;

Would you have Him bear that sorrow all alone? Dare we call an impulse futile that but leads where He has trod?

Let us speak with reverence, sister: Love is God. Thus we may remain as hopeful as we were in earliest youth;

For, howe'er our minds may wander, Love is always Truth.

Mistletoe and Olive contains lessons on several other keys: Mistletoe; Olive; the Rainbow; the Logan-stone; the Prophet Birds.

In The Forging of Passion into Power will be found descriptions of three kinds of equilibrium (pp. 78-81) and of three symbols of authority (pp. 145, 146): the slave-driver's whip, with its various modifications (the Lord Mayor's mace, the policeman's truncheon, the schoolmaster's ferule); the shepherd's crook; and the conductor's bâton.

With reference to these, it should be further observed that the bâton and the ferule may be indistinguishable from each other in outward appearance; indeed, the same stick often does duty for both. A school inspector has been heard to say that he judges of the condition of a school primarily by looking to see if the stick is frayed at the end; if it is so, he knows that both the singing and the discipline are ill-managed.

SOME MASTER-KEYS

Neither ferule nor bâton has any resemblance to the pastoral crook.

Any sort of confusion between the three symbols of authority may open the way for all kinds of deception, whether in religion, ethics, sociology, politics, or finance.

The reader is recommended to study the Stormspiral, alluded to in the eighth verse of the third chapter of the Gospel of St John. It is described in A Woodworker and a Tentmaker. I hope the reader will, in all cases, study the objects alluded to, if possible. Any description of mine is of less consequence than what may come to the student himself if he studies the objects with a full conviction that each brings to him a message from the Unseen. This remark applies with special force to the storm-spiral, which can be seen on any dusty road on any windy day.

Part II

THERE is a tendency in religious circles to drift into a bad habit of using the name of Jesus in a careless, conventional, and finicking sense, which often connects the Great Teacher with going to church in one's best hat; and with priestcraft, and ecclesiastical millinery and upholstery; or with hysterical sentiment; or anything else that is morally lazy and dishonest, rather than with any sincere emotion or profound conviction. No habit tends more than this to predispose the members of the community to be taken in by Swindler's Algebra. In all times of sound spiritual revival the founder of the religion has been felt to be a grand type of redeemed humanity. It might be well, therefore, if occasionally in families and small informal groups some neutral word which implies this were occasionally used instead of the

SOME MASTER-KEYS

personal name of the founder. For instance, take the revival hymn:—

"'Hold the fort, for I am coming,'
Jesus signals still.

Wave the answer back to heaven,
'By Thy grace, we will.'"

It might be well sometimes to sing it thus:-

"' Hold the fort, for I am coming,'
Wisdom signals still."

"Heaven" also has associations which do not fit every case, and which are therefore liable in some cases to lead the imagination astray on to side-issues. Hades properly means the shadowland, the unknown, and therefore suits every case in which anybody is puzzled or in doubt. So we might finish our verse:—

"Wave the answer back to Hades, By God's grace, we will."

In fact, the history of Jesus is the great Master-Key of the science of Notation. Or, to change the metaphor, it supplies wings to that science, which otherwise has only feet.

OF THE SCIENCE OF NOTATION

Every human being can translate more or less of that history into terms borrowed from his own special experience.

Every great founder and reformer has parasitic followers who cry to him: "Master, we have spoken in thy name and in thy name have done wonderful works; give us now a share in thy glory"; and has replied, from his seat in Hades, "I never knew you. Depart from me, ye workers of dishonesty."

A VISION OF THE SCIENTIFIC CHRIST

When things are in a state of confusion and strife it is well to form a clear picture to oneself, first, of what the contending parties can agree about; next, of why they differ where they do really differ.

It seems to be pretty generally understood throughout Europe that the words attributed in the New Testament to Jesus of Nazareth form a convenient summary of the inward experience and higher aspirations of mankind. Some believe that Jesus was an actual personage; others, that He is an idealised presentation of glorified man; in one or other of these ways He does, for most of us, represent our conception of glorified man.

But we do not all look at the same side or face of this Idealised Man. To the supporters of the Papal system He is primarily the Head of a Church, and no words of His are more important than the little pun on the name of Peter: "On this rock will I build my Church."

To Luther and Calvin He was the enunciator of doctrines about the conditions of salvation. To the mystic He is primarily the utterer of certain facts of mystic experience about the relation between man and the unseen God. To the modern English Protestant He is, before all things, a preacher of "righteousness," which apparently means some special idea of justice in the relation of man to man. Up to and including the first quarter of the nineteenth century, the scientific world, as such, had taken no cognisance of Christ. Then, slowly, by quite imperceptible degrees, the conception dawned on a few scientific men that the phenomenon, Jesus, formed part of the proper material for scientific investigation.

The change came about silently; hardly anyone noticed what was happening. To make clear what did happen, we must say a few words about the special nature of the scientific consciousness. The scientific consciousness has its code of right; but this in no way depends on either system, opinion,

sentiments of love (to God or man), or on anything generally known as ethics or righteousness. It depends entirely on an order of time-sequence.

To take his place among the immortals of the scientific Olympus, the saints in the scientific hagiology, a man need not serve any institution or system, express any emotions, hold any given opinions, do or leave undone any particular act, practise moral virtues or avoid vices; the one thing he must do is to observe a certain order of sequence among his various mental operations. "Know; and then do as you then see fit," is one of its sacred canons. Others are: "No scientific man begins to think on a subject until after he has ascertained such facts as are, at the time, ascertainable which might throw light on the subject." "Ascertain as many facts as you can, first; frame hypotheses afterwards." "No act that a man can commit, knowing it to be wrong, is as criminal as it is to keep oneself ignorant of facts that one might know in order to be able to do wrong while still fancying oneself right. For the man who knows he is doing wrong does at least give himself the

double chance of being checked by conscience and by fear of consequences; whereas the man who keeps himself ignorant is forbidding God to enlighten him."

All this is very different from what is ordinarily known as morality or righteousness. But it has its place and its value. And, as we said, in the second quarter of the nineteenth century the mood of mind of which the above canons are the expression discovered Jesus of Nazareth. First as a mere phenomenon, a fact to be investigated on the same principles as any other fact or phenomenon. "Science seizes her prey where she finds it," said one of the great masters of analysis. And Science seized upon Jesus as she might do on a flower or a star.

But when Science had got Jesus into her grasp and under her microscope, she soon made an overwhelming discovery:—Jesus laid down canons of time-sequence! "If thy brother offend thee, go and tell him" alone, before speaking to the public (and of course that involves giving oneself a chance of hearing what he has to say in explana-

tion). "If you wish to correct a fault in some one else, correct a similar fault in yourself first; then you will see clearly how to correct the other person." "If you propose to make a contribution to the nation's treasury, and remember that there has been anything equivocal or unjust in your own conduct, go and give to any private individual who objects to you an opportunity of explaining what harm you have done him, before you attempt to enrich the public." And (best of all from the scientific standpoint) "secure your provision of illuminating material long before you will need it to illuminate the world; secure your provision, and then go to sleep. When the need comes, you will be ready. There is no use in trying to get the material at second hand after notice has been given that the need is at hand."

All these canons of time-sequence are, from the point of view of Science, of indisputable value and of primary importance. But they have been, from first to last, ignored by all sections of Christendom alike.

From the point of view of Science, then, Jesus

A VISION OF THE SCIENTIFIC CHRIST

was a scientific man who appeared in a society as much occupied with religious and ethical notions as ours, and as profoundly unscientific as are the religious bodies of our own day. He tried to import into the chaos of religious and ethical discussions those canons of order and sequence which are found to work so well in the prosecution of physical science.

Religious fanaticism and ethical pharisaism were as incapable then as now of appreciating the value of scientific order and method in the sequence of mental operations.

The above is not an exhaustive view of Jesus; but it is one view, and has at least as good a right as any of the former ones to be considered one of the answers to the question:—"What think ye of Christ?"

THE ATHANASIAN CREED

When the Hebrew people had risen above the notion of a tribal God who had prejudices against certain kinds of animals and in favour of one particular family of Semitic men, to the idea of a universal Father "without parts or passions," they took courage to associate more freely than they had been doing with other nations, and to imbibe some of the culture of Egypt, India, and Greece.

But there was one difficulty which seemed for a time insuperable.

The Gentile nations were "polytheistic": that is to say, they worshipped the Creator under a variety of Eidola, or imaginary shapes, which varied according to the circumstances or the mood of the worshipper. As the Origin of strength, He was called by one name; as the Creator of beauty, by another; and so on. But Israel was

THE ATHANASIAN CREED

pre-eminently monotheistic; the Jew prayed every day that he might never believe in more gods than one, and that his last breath might be spent in protest that God is One.

This is not a historic treatise and we cannot enter on any details of the long conflict which ensued. A solution was arrived at at last. It was perceived that there is no harm in any man making any working hypothesis about God which suits his mood of mind, or worshipping God under any eidolon which appeals to his imagination; the harm begins when he denies to other men the same right which he is taking for himself: when he despises the eidola which are sacred to his fellow-man. Varieties of perception and differences of taste are as natural and as necessary as division of labour; the function of religion is not to emphasise one's own hobbies or the prejudices bred in one by heredity or the accident of association, but to put one into sympathetic touch with the tastes and inspirations of others.

This conception of the true function of religious worship incarnated itself in the person of the

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teacher who was called Jesus Christ (i.e., Jesus the Anointed). He pointed out to the Jews that their own prejudice against other religions was in itself a form of idolatry, and as disastrous and deadening as any other form of that ghastly disease.

The Jews, of course, sacrificed the new Liberatorprophet, by way of proving their loyalty to the older Liberator-preachers of Unity, Moses and Isaiah. Jesus had offered His life to the cause; and fate, as usual, took Him at His word. The bodies of the martyrs lie "mouldering in the grave," but the Truth goes marching on. The idea of Jesus about the true function of religious worship received new impetus from His tragic death. It met and amalgamated with the Græco-Egyptian idea of education as a training in the worship of the True, the Good, and the Beautiful. Out of this amalgamation grew a document, known as the Athanasian Creed, which might be described as a highly condensed summary of the whole duty of the Teacher. It was at one time ordered that this Creed should be read aloud in churches, as a perpetual reminder that man was not made to be a

THE ATHANASIAN CREED

slave to any particular view of religious ceremonial or Sabbath observance, because the function of Sabbaths and religious festivals is to *liberate* and *humanise* man.

The language of this old Creed is archaic and, to modern Europeans, unintelligible. Many of the clergy who read it in church on Trinity Sunday confess, if they are honest, that they have no idea what it is really about.

Some years ago one of the inspectors of the Board of Education broached the idea that a fresh start ought to be made towards organising national education round the old Græco-Egyptian charter of intellectual freedom. The fundamental conception of his educational scheme appears to be that pupils must be allowed to specialise: some devoting themselves to practical science, others to sociology and the science of ethics, and others again to the cultivation of art; but on national festivals the scientific should pay sympathetic homage to the aspirations of reformers in social science and in art; the morally fervent should open their eyes to see the wonders of science and art; and the artist

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should allow himself to be braced and strengthened by the minute accuracy of the scientist and the moral scruples of the ethical teacher.

The attention of parents and teachers might with advantage be called to the break which occurs in the Creed at the word "Furthermore," and the relation of inversion between the two parts. The first part relates to the general organisation of an educational scheme; the second to the duty of the individual teacher. The organiser must be careful neither to divide the substance taught nor to confound the persons; the teacher must be careful neither to confound the substance nor divide the person. E.g., a school should impress the children with the idea of a common aim, a united purpose; but each subject should be taught by its own appropriate methods, and the teachers should be careful not to criticise each other's methods or interfere with each other's work. The individual teacher, on the other hand, should pay special heed to keeping the several parts of his subject separate in the minds of his pupils: to see that the pupils understand the difference between physical and political geography; between plane and spherical geometry, between the solid object and its various shadows or projections, between historic evidence as to the facts and moral convictions as to the relation between the facts. But he should also be careful not to produce in the pupils any impression of varying moods or distracted personality in himself.

There is no better way of teaching than to introduce pupils to the As-Yet-Unknown portions of a subject; inviting their co-operation in solving problems which for the teacher himself remain still unsolved. But he should not venture to do this till he can do it in the spirit of Faith; pointing out the limits of his own knowledge, but without infecting the pupils with any sense of discrepancy or of moral distraction in his own mind.

The following paraphrase of the glorious old Creed may help to show how it bears on some of the problems of the present day.

A PARAPHRASE OF THE ATHAN-ASIAN CREED

(It must be remembered that this Creed concerns not children but advanced students, parents, teachers, and persons in authority.)

PART I

WHOEVER would remain morally sane, before all things it is necessary that he keep the Law of Mental Balance.

Which Law, except everyone do keep strictly and in pure sincerity, without doubt he shall degenerate as to that part of his mind with which he holds converse with the Eternal.

And the Law of Balance is this: that we reverence one Revelation in three parts, and the three parts as essentially One:

Neither confusing together the three manifestations of Truth, nor doubting that they are essentially One.¹

For there is one manifestation through ex-

ternal Nature; another through Moral Law; and another through Inspiration by Synthesis.1

But the divineness of Nature, of human Morality, and of Inspiration, is all one: the Glory equal; the Majesty co-eternal.

Such as Nature is, such is Ethics, and such is Artistic Inspiration.

The Laws of Nature are uncreate and essential; the Laws of Ethics are primary and essential; the Laws of Inspiration are primary and essential.

Nature is too vast for any man to comprehend; human relations are too complicated for any man to comprehend; artistic inspiration is too vast for any man to comprehend.

The Laws of Creative Energy are eternal; the Laws of Ethics are eternal; the Laws of Inspiration are eternal.

Yet there are not three kinds of eternal Law; but One.

So there are not three Forces which comprehend us and cannot be comprehended by us; but One; not three Origins of Law; but One.

¹ See Notes at end.

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So likewise the Forces of Nature are irresistible; Moral Force is irresistible; and Inspiration is irresistible.

Yet there are not three irresistible Wills, but One.

So the Revelation of Nature is good; human relations are good; and Inspiration is good.

Yet they are not rivals, but all alike Good.

So likewise the Scientific Conscience is absolute; the Moral Conscience is absolute; and the Artistic Conscience is absolute.

Yet they are not rival authorities, but various revelations of One Absolute Rightness.

For we are compelled by respect for veracity to acknowledge that each of these apparently diverse presentations 1 of Law is Good and is Master.

But we are forbidden by the ancient Universal Charter of human freedom to say there be three rival Good Principles or three Masters.

The general pulsatory action of nature is spontaneous and original; neither manufactured nor evolved.

¹ Persona = mask or appearance.

A PARAPHRASE

The relations of human society grow out of the original rhythmic beat, not by any artificial process, but by normal evolution.

True and wholesome inspiration comes from the combination of the other two factors, normally but not spontaneously.

So there is One Source of life, the same for all created things; One Director and Test of upward Evolution, the same always; One Source of healthy Inspiration for man, no matter on what subject.

In the Trinity of Absolute Masters (the Scientific Conscience, the Ethical Conscience, and the Artistic Conscience) none is afore or after another; none is greater or less than another.

But the whole three appearances of Rightness are co-eternal and co-equal.

So that on all occasions, as aforesaid, the one Creator is to be worshipped under three manifestations; and the three manifestations as one Good.

Whoever would be morally safe must remember to think thus.

PART II

Furthermore, it is necessary to the efficiency of a man's faculty of holding converse with the Eternal that he also know the truth about the Incarnation (coming into visible shape) of the Ideal Leader and Liberator, the Anointed.

If we are honest, we must believe and confess that the Anointed Deliverer is both divine and human.

He has that divine consciousness that all things are good, which existed before the planets were made; and that human consciousness of some things being evil, which comes by natural evolution in the womb of a creature.

He sees absolutely, as God does, that all is good; yet he sees perfectly, as ordinary men do, that some things are evil; for he embodies in human flesh the Higher Logical consciousness.

He sees the Abstract as God the Father sees it; but, as to the concrete, he has limitations.

But although he has the dual vision—of God and of man—yet he is not two consciousnesses but One Anointed.

A PARAPHRASE

One, not by dragging down the Divine Vision to be a servant or plaything of the flesh; but by using human limitations to serve divine purposes.

One altogether; not because he himself confuses between his divine and his human apprehension; but because he is careful not to make, on his weaker brethren, the impression of a distracted personality.

For, as reason and the limitations of the fleshly nature combine to form one ordinary man; so the divine and the human consciousness form One Anointed Teacher.

The dual consciousness is a source of great suffering; but it brings the divine to the rescue of mankind; it goes down to the depths of horror, but finds fresh strength there; and soon rises from its apparent death.

It transcends human limitations; sees more clearly than before from the point of view of Divine Vision; becomes irresistible; and the standard by which men judge the Present and the Past.

Then mankind rises to a higher standard of

rightness; and even their natural perceptions become keener; and they can understand and explain their own past conduct.

And the good which they have done becomes a permanent possession of Humanity; but the evil dies away 1 (in three or four generations).

This is the old charter of human freedom; which except a man remembers faithfully, he cannot be safe in investigating the mysteries of the Unseen World.

Therefore let us give reverence to all modes of manifestation of the Divine:

Which was the safe thing to do in the beginning of History, is so now, and will be so as long as men exist.

All this I do steadfastly believe.

Note 1. "The unconscious mind of man is an organ which functions normally towards Monism." It should be given scope for this activity. The Persons or Masks of Divine Unity should be presented severally and separately for the pupil's conscious reverence. Attempts

¹ Visits sins for three or four generations; but keeps mercy for thousands of generations.—Second Commandment.

A PARAPHRASE

by teachers to point out, for instance, the beauty of a mathematically drawn curve (or even its likeness to any natural form) or the mathematical accuracy of one drawn by artistic inspiration, or to "draw a moral" from a lesson in science or art, should be severely discouraged. He that believeth will not make haste. The prurient teacher-lust for premature unification by direct appeal to the conscious mind of the pupil is the result of lack of faith in the Unity of the divine sub-stance, the One-ness of the Truth underlying truths learned by various methods. Those who only think that this Unity ought to be believed have a restless desire to assert it; whereas those who actually believe it are content to wait for it to assert itself in the proper sphere for the worship of Unity:—the unconscious mind of a child.

NOTE 2. As Inspiration by Synthesis is prone to be more sudden, more intoxicating, and therefore more likely to lead men astray, than the pursuit of Science or Ethics, the Christian Churches tried to warn men against the danger by reminding us, in every possible way, and on every possible occasion, to think of Inspiration as the

work of a Holy Spirit.

AFTERWORD

THE foregoing will, I hope, prove adequate to give to an intelligent reader a conception of what was meant in ancient Asia and Greece by the doctrine of the Logos, or hidden wisdom; i.e. the science of orderly modes of intercommunication between man and the unseen powers which are moulding his destiny.

The science has been revived in Europe several times, but each time for only short periods; there were longer periods during which "there was," as the old book said during a time of decadence in Asia, "no open vision," that is to say, no free communication between man and the Unseen, unhampered by priests and conventions, and without need of the intervention of any special mediums.

One main cause of decadence always is the inadequacy of old language to deal with the new

AFTERWORD

order of material facts. The newly discovered material facts assert themselves, and then swamp out the great vital truths as expressed in the old

language.

In the middle of the last century, a bold attempt was made to re-state the doctrine of the Logos in a quite new kind of terminology, not language at all but the notations of the telegraph apparatus, the physical and chemical laboratories, the mathematical tripos. As usual, lazy-minded people in possession of the field did all they could to prevent the sun rising. As usual, the sluggard cried out:—"There is a lion in the path." As usual, those who had felt the divine call to go forward went forward in spite of the sluggards, who were really there, and of the spectral lion whom the sluggards conjured up, and whose roar they managed to imitate successfully.

I have fought through this holy war, standing beside one or other of the generals, for seventy years, having received my first lesson in the Logosdoctrine, when I was nine years old, mixed in with my first Rule of Three sum. For seventy

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years I have been accumulating various kinds of information about the possibility of expressing the Logos-doctrine in laboratory terminology. It will be edited by my pupils.

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- 2. List of Books recommended for further study.

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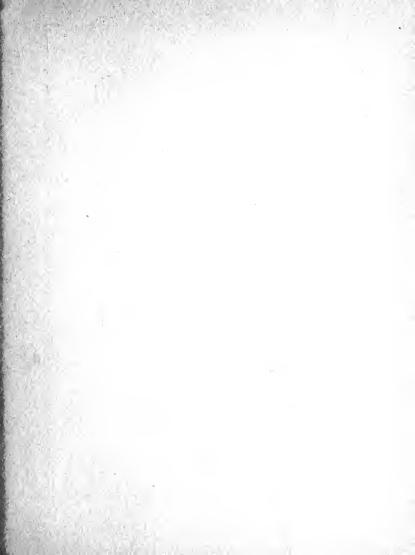
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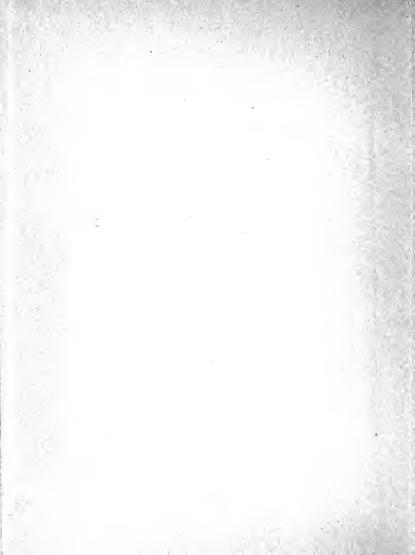
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