The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the Extension of the Religious Parliament Idea

Editor: DR. PAUL CARUS. *Associates:* E. C. HEGELER. MARY CARUS.

VOL. XXI. (No. 7.) JULY, 1907. NO. 614.

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DR. PAUL CARUS
EDITOR

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An Unpartisan Organ of Religious, Ethical, Philosophical, and Scientific Expression, Contributed to by the Leaders of Science in all Countries, and by the Leaders of Religion of all Denominations.

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THE SEVEN GODS OF BLISS

Frontispiece to The Open Court.

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ANCIENT MYSTICISM AND RECENT SCIENCE.

BY CHARLES KASSEL.

INGRAINED with us all,—wrought into our innermost fibers,—is an abiding love of mystery and marvel. From the shadowy ages before the earliest glimmer of history, stories of the weird and the wonderful have exercised a surpassing charm over the imagination of man. Who does not recall how deeply in his nursery days the tales of conjurors and wizards, of fairies and genii, of magic swords and enchanted palaces, appealed to the childish fancy, and how vivid and life-like seemed the image of Ali Baba and Cinderella and Red Riding Hood when the lessons of the school-room and the Sabbath-class faded almost as fast as learned. Even in a devouter generation, when church and creed and sacred page were held in deeper reverence, few children knew their Bibles nearly so well as they knew their Arabian Nights, and the rich coloring literature everywhere has taken from those fictions of the Orient is token of their no less singular fascination for the adult mind.

It is a striking truth that science, in its triumphs hitherto, has been realizing one by one the fancies of fairy lore and magic. The picture that moves and speaks—the chariot that bounds like a fiery meteor through the air—the wizards catching each other's thoughts across a continent's space,—all these have found themselves actualized in the phonograph, the kinetoscope, the electric car and the wireless telegraph. Scarce a century ago these wonders would have been deemed a fakir's story, and a century earlier the idea of a steam railroad, a sewing-machine or a cotton gin would have been ranked with the magic lamp of Aladdin and the flying horse of Prince Feroze-shah.

When modern science dawned the world was dark with superstition. Everywhere, notions fantastic or barbarous fettered the

human intellect. Witches, foul and hideous, that flew through the air or lurked about the threshold, weaving with their bony hands the spells of death and ruin,—black sorcerers, with their magic signs and incantations, who cast enchantments over the reason or changed to brutish forms the objects of their spite,—astrology with its traditions and dogmas,—charms and amulets with their transforming influence upon the affections,—omens with their boding messages of blight and blood: these and other superstitions no less grotesque and crude held the common mind in thrall.

Mingled with these ruder notions, however, were beliefs of a nobler character which had come down from forgotten ages and which made a strong appeal to the imaginations of the learned. Such was the tradition of the Golden Age, with its universal goodness and innocence, in the far eras before recorded time. Such, too, was the faith of the alchemists in the transmutability of the baser metals into the more precious, and in the magic elixir which should confer the boon of perennial youth. Such, again, was the belief in mesmeric influences. Such, also, was the idea of an invisible world, permeating our own and interpenetrating our very flesh, in which lived and moved, though viewless to the natural eye, the spirits of the departed. Such, finally, was the belief in seers and magi within whose ken it lay to commune by inter-projection of thought across mountain chasms and pathless deserts, and who, in the last triumph of their art, could vanish into air and re-appear, like a flame puffed out and re-lit.

Against these ideas of the learned, no less than against the gross superstitions of the vulgar, science declared war. The belief in the transmutability of one element into another was opposed to its fundamental conceptions. The transmission of thought through leagues of barren space was cried out upon as impossible. The casting of spells was sneered at contemptuously as unworthy of discussion. The notion of a world of reality, interpenetrating the natural world yet defying the grasp of the natural senses, was brushed aside as a poetic fancy. The idea of physical matter being rendered invisible at will was laughed away as making against the principles upon which all physical and chemical science rested,—the principles of inertia and of the conservation of mass.

It is noteworthy that during the past century, though our material philosophers have remained steadfast in their attitude of fixed resistance to the claims of the mystics, the march of discovery has been tending more and more toward the occult. Beliefs once sneered at by the savants have ripened into recognized truths, or have found

such striking analogies in modern research that scholars of the old school have been given pause. Those familiar with the history of hypnotism may recall the impatience of the scientists with early believers in this now well-attested phenomenon, forming, as it frequently does, an aid to surgery and medicine. The principles of science afforded no basis for so strange an influence of one mind over another, and, with something of the dogmatism of theology, the material thinkers denied what they could not explain.

Little less marked than the difference between the early and the present attitude of science toward hypnotism has been the silent and gradual change of sentiment toward the phenomena of telepathy. Time was when the idea of thoughts flying from mind to mind across stretches of barren space seemed wild and grotesque. There was no law known to physics which would lend probability to so strange a claim, but the triumphs of invention and discovery, which give to the nineteenth century so splendid a page in history, supplied analogies that have removed telepathy from the realm of the improbable and have made the idea familiar to our thought. The electric telegraph suggested faintly the mysterious powers with which legend clothed the ancient seers, but it was with the birth of the telephone,—an invention which, before its discovery, would have been pronounced impossible,—that the analogy grew striking; and with the advent of the wireless telegraph, pulsing its messages through vacancy, the suggestion of the legends of old becomes complete.

The belief which, perhaps, exercised the greatest fascination over the inquiring minds of old was that which taught the possibility of lengthening out, far beyond the natural span, the years of man's sojourn upon earth. Intoxicated with the idea, some sought under strange suns the fabled fountain of youth whose magic waters should unbend the drooping frame and fire each failing sense with perpetual life. Others, less credulous, strove to wrest from alchemy the divine elixir which should yield this priceless gift. How singular that the dream of the mediæval philosophers should find an echo in the utterances of one of the gravest of modern scientists,—one whose teaching and temperament is without a touch of mysticism and whose thought is the crystallization of a lifetime of patient research. In his volume *The Nature of Man*, recently translated into our tongue, Elie Metchnikoff, the Russian bacteriologist, and successor of the great Pasteur in the French Institute so long identified with the name of the latter, pronounces old age abnormal and no part of "healthy physiological function," and holds

it well within the bounds of probability that in the fulness of time the life of man upon the planet may be indefinitely prolonged.

The ancients knew nothing of the larger truths of physiology, being ignorant, even, of the circulation of the blood, but the modern student of that fascinating science, where he has paused to reflect upon the mystery which enveils the processes of life, has been struck by a singular phenomenon. From childhood to manhood, and thence through the years of the bodily prime, the heart and lungs and digestive machinery replace as fast as lost the wasted particles of the frame; but with the advent of old age the vital processes begin to lag, the form droops, the eye dims, and the whole organism falls slowly into decay. Why is it that the work of physical rejuvenation so perfect in youth and manhood does not persist far beyond the common span of life and that man's sojourn upon earth is not reckoned by centuries? Bacteriology, the latest great legacy of science to the world, has let in the light upon this engrossing problem. In the eyes of a Pasteur or a Metchnikoff, the body of man is the theater of perpetual conflict. During every moment of earthly life, and throughout every limb and organ, a deadly warfare wages between the bacteria which battle for the preservation and renewal of the organism and the microbes which battle for its destruction; and old age, as the later researches of Metchnikoff and his confreres would seem to show, is but the giving way of the defenses of the organism before the assaults of these swarming infusoria. If this be true, it needs but to learn the habits of these tiny pillagers of the frame, and to curb or neutralize their action, when the prophecy of Metchnikoff and the beautiful fancy of the ancient mysticists flowers into fact! Who shall say that even this magnificent accomplishment is beyond the pale of possibility when he recalls the splendid conquests already won by science over the primal forces of nature?

A figure familiar to the student of history is that of the alchemist, pale and bent, watching with eager and sleepless eye the fiery crucible whose glow Hope tinged with a resplendent possibility! The philosopher's stone! How richly interwoven is this fancy of the elder day with poetry, romance and history! How many fine souls grew wrecked in health and maddened in brain in the wild quest for the principle which should turn worthless metals into gold! With the dawn of modern learning, the belief in the possibility of transmutation passed, like thousands of superstitions, into the limbo of forgotten creeds and systems; yet, strangely enough, with the advent of a still riper knowledge, the supposed delusion

of the ancients begins to stir in its charnel-house and to show signs of returning life! "It is interesting to observe," says a writer in *Chambers's Encyclopedia* (Lippincott's American edition, 1901, Vol. I, page 131), "that the leading tenet of the alchemists' creed, namely, the doctrine of the transmutability of other metals into gold and silver,—a doctrine which it was thought modern chemistry had exploded and which was rejected as an impossibility by Sir Humphry Davy,—receives not a little countenance from a variety of facts now coming to light, especially in connection with allotropy." Were the author of these lines writing at this hour he would find his language much too moderate. The progress of discovery since these words were penned has lent to the once derided theory of the ancients a dignity which, but for the unfoldments of the past few years, it could never have worn. "A strange confirmation of the faith in transmutation entertained by the alchemists of old," exclaims George Iles in his introduction to the *Little Masterpieces of Science,* (Doubleday, Page & Co., 1902), referring to the interesting facts disclosed by the delicate lines of the spectroscope; and, twelve months after, another writer could speak of new grounds for the increasing respectability of the old alchemists' teaching. In a volume issued by Harpers in 1903, devoted to a sweeping survey of the latest marvels in science, Carl Snyder observes: "Prof. J. J. Thomson, of Cambridge, shows that ions, electrons or corpuscles are at least one thousand times smaller than the smallest and lightest atom; and from whatever source they come they are all alike identical in every way. Is this primal matter at last? Is here the stuff from which all known substances are compounded? May we look forward to a time when we may build up any substance,—gold, for example,—from the elements of any other? Have we realized the philosopher's stone?"

As yet, however, science was without an actual demonstration, though it had not long to wait. Carl Snyder's pages were scarce dry from the press when the announcement was flashed across the Atlantic that in studying the phenomena centering about the new metal radium, Sir William Ramsey had found the gaslike, luminous emanation from that metal transfusing through its singular changes into a distinct element, itself discovered but a few years before though known for a quarter of a century to exist in the sun,—helium! The birth of one element from another! The scientific brain reeled! The whole philosophy of chemistry and physics, so laboriously built up, seemed tottering, and the very pictures of the old alchemists appeared to mock and jeer from their frames! Now

comes Professor Rutherford, the eminent specialist in the investigation of radio-active phenomena, and ventures the idea that the emanative changes of uranium, another of the radio-active substances, will be found to ultimate in the common metal *lead*! If this be true, then we have but to find the radio-active mass the successive offbirths of which end in the King of Metals, and the dream of the ancient alchemists is within our grasp!

The mention of radium and radio-activity leads naturally to a discussion of these absorbingly interesting phenomena, with their shock to the accepted principles of chemistry and physics, and their startling confirmation of ideas and theories which have long rested under the taboo of science. The annals of discovery are without a parallel for the consternation which has prevailed among the scientists ever since Mme. Curie's remarkable discovery. The very central teachings of chemical and physical science,—teachings so long unchallenged they had crystallized into axioms,—have been rudely shaken; and tenets of mysticism long treated with contempt by the savants have leaped into the pale of scientific truth. "We have been taught," says Prof. A. E. Dolbear in the *Popular Science Monthly* for July, 1905, "and have probably had no misgivings in saying that matter is indestructible. Much philosophy is founded upon that proposition. But we are now confronted with well-vouched-for phenomena from two independent workers that under certain conditions a certain mass of matter loses weight not by mechanical removal of some of its molecules but by physical changes which take place in it. This is a piece of news that is almost enough to paralyze a scientifically minded man, for stability of atoms, unchanging quantity and quality, seems to be at the basis of logical thinking on almost all matters." How complete has been the overturn wrought by the new phenomena may be inferred from the tone and tenor of scientific statements written before radio-activity had disturbed the assurance of the scientific mind. Thus, in a discussion of the doctrines of indestructibility and inertia appearing in *Chambers's Encyclopedia* under the title of "Matter," it is said, "One of the most remarkable of these (properties of matter) what has been called conservation of matter, is the experimentally ascertained fact that no process at the command of man can destroy even a single particle of matter. Still less can it create a new one. It is on this basis that the great science of chemistry has been securely built." And in the same article, "Quantity of matter, or mass, as it is technically called, is measured by inertia, which (as expressed in Newton's first law of motion) may be looked upon

as the fundamental property of matter....It is in virtue of its inertia that a body can possess energy of motion and that work is required in order to set in motion even the smallest particle of matter."

It was with these principles, now so much discredited, that scientists met the spiritualists and the investigators of psychic phenomena. *A priori,* and with manifest impatience, they stamped as a fraud or an illusion every phenomenon which violated these laws. Here and there, it is true, a lone thinker, like Camille Flammarion, the astronomer, or Alfred Russel Wallace, the naturalist, remembered that science had already touched the fringe of mysticism in its theory of the universal ether, and paused from his labors to inquire what seeds of truth there might be in the claims of the psychics; but for the most part, the savants drew the mantle of their learning about them and invoked the venerable maxims of their science. It was left for a brilliant French woman, working patiently in her laboratory, to shake them from their self-assurance into a newer realization of the mysteries amidst which they stood, and of which their science had caught but a faint and erring glimpse.

The discovery of radio-activity has flung wide the doors to a new world of phenomena. The researches of the Curies, following out a hint afforded by the discoveries of Becquerel, lifted the veil from a species of matter wholly new, and possessing characteristics strange, if not weird. These characteristics, as was first thought, applied only to radium and its kindred metals, but, as investigation proceeded, scientists, to their amazement, found indications of radio-activity in the common air and soil.

Nothing could be more extraordinary than the behavior of radium. With no exciting cause, so far as investigation has disclosed, this element gives forth steadily an amount of energy enormous when compared with its mass; nor is the amount of heat emitted lessened or interrupted by plunging the radium into liquid air or sealing it within a leaden vessel. It has been estimated by Professor Rutherford that one pound of radium emanation would give forth energy corresponding to many thousand horse-power, and Sir William Crookes, in the language of a recent writer, "sees in radio-activity a possible source of light, heat and power sufficient to supply the world,—possibly giving rise to a mighty industry like electricity."

The gas-like emanation of radium, like the Röntgen ray, possesses a penetrative power which enables it to pass readily through substances opaque to light. The distinctive feature of radium rays consists in their visibility to the natural eye, but before their discov-

ery the Becquerel radiations of uranium, which are invisible to the eye, had been known for some years. All these radiations, science has clearly established, are a form of matter and not merely etheric vibrations of an order such as result in the light familiar to our senses; and the problem which confronted the scientists was to reconcile the phenomena of radium, its power of penetrating substances and the successive emanations to which the radiations give rise, with the accepted notions of physical matter. The effort at a reconciliation has been abandoned, and investigators have been forced to adopt a wholly new theory of matter,—the corpuscular or ionic theory.

It is now taught that the ultimate atom, once supposed to be simple in substance and indivisible, consists in reality of a multitude of tinier atoms or corpuscles in rapid motion, all swinging about a common center much as the orbs of our planetary system revolve about the sun; and that by reason of some disturbance a number of these particles escape from the atom and, in conjunction with like particles from contiguous atoms, make up the emanation which the eye beholds. These corpuscles, moreover, being much smaller than the atom which has heretofore been looked upon as the unit of matter, pass readily through the interstices between the atoms of grosser matter.

The following passage from an article in a recent issue of the *Popular Science Monthly*, written by Professor Rutherford, the author of the most authoritative work yet published upon radio-activity, presents some interesting observations upon the characteristics of radium: "Radio-activity is always accompanied by the appearance of new types of radio-active matter which possess physical and chemical properties distinct from the parent element. Radium emanation is a transition substance which disappears and is changed into other types of matter. It emits during its changes about a million times as much energy as is emitted during any known chemical change." The fact that radium emanation remains active for more than a thousand years, according to the estimate of the scientists, suggests to us the ever-burning lamp of the ancients, which in the light of the latest marvels of science may, perhaps, not be wholly fanciful.

How far toward the doctrines of the ancient mystics science has been pushed by these discoveries may be seen when we place side by side an utterance of the most celebrated of the alchemists with that of a recent scientific authority. "He," says the writer of the article "Alchemy," referring to Paracelsus, in the Encyclo-

pedia from which we have already quoted, "inculcates the dogma that there is only one real elementary matter,—nobody knows what. This one prime element of things he appears to have considered to be the universal solvent of which the alchemists were in quest." After centuries of experiment and discovery science seems now to have made its own this once absurd teaching. Says Prof. Edward L. Nichols, of Cornell University, in the November issue, 1904, of the *Popular Science Monthly*: "The evidence obtained by J. J. Thomson, and other students of ionization, that electrons from different substances are identical, has greatly strengthened the conviction which for a long time has been in process of formation in the minds of scientists that all matter is in its ultimate nature identical. This conception, necessarily speculative, has been held in abeyance by the facts regarded as established and lying at the foundation of the accepted system of chemistry of the conservation of matter and the intransmutabilty of the elements. The phenomena observed in recent investigations of radio-active substances have, however, begun to shake our faith in this principle. If matter is to be regarded as a product of certain operations upon the ether, there is no theoretical difficulty about the transmutation of elements, variation of mass or even the complete disappearance or creation of matter. The absence of such phenomena in our experience has been the real difficulty, and if the view of students of radio-activity concerning the transmutations undergone by uranium, thorium and radium are substantiated, the doctrines of the conservation of mass and matter which lie at the foundation of the science of chemistry will have to be modified." Just how would this "variation of mass" or "complete disappearance or creation of matter" take place? Perhaps, the following passage from Professor Rutherford's work on radio-activity, quoted by Professor Nichols in the same article, may afford a clue: "The electron or corpuscle is the body of smallest mass yet known to science.... Its presence has only been detected when *in rapid motion*. This apparent mass *increases with the speed* as the velocity of light is approached."

Professor Nichols's article, it will be observed, was written in 1904, before the phenomena of radio-activity had become as fully or widely known as they became in the year following. That all doubt as to the character or significance of the new phenomena had disappeared within less than a year may be seen from the paper contributed to the July issue, 1905, of the same periodical by Prof. A. E. Dolbear, a portion of which will be recognized as having been already quoted: "We have all been taught, and have probably

had no misgivings in saying, that matter is indestructible. Much philosophy is founded upon that proposition. But we are now confronted with well-vouched-for phenomena from two independent workers that under certain conditions a certain mass of matter loses weight, not by mechanical removal of some of its molecules, but by physical changes which take place in it. This is a piece of news that is almost enough to paralyze a scientifically minded man, for stability of atoms, unchanging quantity and quality, seems to be at the basis of logical thinking on almost all matters. In the Arabian Nights we may expect that the unexpected will happen,—genii may be summoned to do this or that, and matter may be annihilated at will,—and the conception gives one pleasure though one knows it to be impossible, and one thinks it impossible because he has never known such changes in matter because one has been taught that matter is indestructible."

We could scarce have believed a few decades ago, as we thumbed the pages of Eastern lore and read of the mysterious enchanters who moved objects at a distance by gesture, or who professed the power of communing with the beings of other planets and, indeed, of transporting themselves to those spheres, that the sober judgment of science could ever lend countenance to ideas so far-fetched. Such, however, in some degree seems the case, and it is fit matter of marvel that scientific speculation should venture upon ground so long resigned to the chimeras of superstition. We can not refrain from quoting another passage of the highly interesting article by Professor Dolbear from which we have already drawn so liberally. "It seems," he says, speaking of the latest deductions from the observed phenomena, "as if the atoms acted as transformers of ether energy into ordinary and familiar forms, such as heat and electricity, and, *vice versa,* transforming the latter into ether energy. When we learn this secret we may likely enough be able to artificially extract from the ether as much energy as we may need for any purpose, for, as I have said, it is inexhaustible, and every cubic inch of space has enough for all the needs of a man for many days." We may close this portion of our paper with the following remarkable sentence from an address on "Astro-physics" by Prof. W. W. Campbell, Director of the Lick Observatory, University of California, published in the February issue, 1905, of the *Popular Science Monthly*: "The actual transport and interchange of matter in the form of small particles from one star to another seems to be a plain and unavoidable consequence of recently established physical facts."

How impressively do these utterances bring back the stories upon which, through all the ages, the imagination of man has loved to dwell! The adept, causing himself to grow visible before the eye and fading as rapidly into vacancy,—the wizard with his magic rod, weaving about him a sphere of light or impulsing from his hands a nameless energy before which animate beings fall away as before a furnace flame,—the medium lending his atoms that the spirits of the dead might be clothed upon for a brief hour with a shadowy garment of flesh: these beliefs, and many others, borrowed by modern spiritualism from ancient tradition, and long laughed at by science as disproved by the simplest principles of physics, have gained a singular dignity from the scientific unfoldments of the past few years. The doctrines,—or, as they may now be more fittingly called, the dogmas, of the indestructibility of the atom and of the inertia of matter,—dread weapons as these have ever been in the hands of the scientist against the claims of the spiritualist,—have suddenly lost their potency, and science stands now abashed and swordless in its age-long battle against the psychics!

Why, the thoughtful mind must ask, these successive triumphs over science of ancient notions disowned by the learned and which we have been taught from infancy to rank with the superstitions of the rudest and most barbaric ages? Whence the strange foregrasp of truths but just now breaking upon us and which we find germed in the hoary beliefs that have formed the mental heritage of the race in every age and under every sun? The same enigma has puzzled those who in studying the religions, mythologies and customs of the world are startled by singular likenesses in ideas and practices between widely sundered peoples. Who can fail to recall the astonishment of the Spanish priests when they found the cross a religious emblem in the land of the Incas,—a spectacle which they could only explain as the work of the Devil; and the universality true of religious rites and symbols is equally true of magical rites and symbols. "These instances," observes the writer of the article "Magic" in the *Encyclopædia Britannica*, "are selected to give an idea of the sorcerers of the lower races and their modes of working, which are remarkable for their uniformity in the most distant regions, among tribes who can have had no communication or connection since remote ages."

May it be that the beliefs which have clung so tenaciously to the race through all its history, and which in so many instances have been justified by the later researches of science, are but broken gleams of truths once known to man but since lost and forgotten?

Is it possible that in its ascent from the brute plane to the human, mankind, scores of centuries ago, upon a continent now sunk, perhaps, beneath the sea, reached a pitch of civilization and psychic culture far more splendid than it has ever known since, but that in some huge lapse from its high estate, long before historic time began, the race sank back in night; and that the stories handed down to us of magicians who made pictures to move and speak and strange fruits and plants to grow,—who rode the air in fiery chariots,—who thrust aside the laws of heat and cold and overcame the laws of gravitation,—and who, finally, could have converse across unmeasured leagues of space and bring within sight and touch the spirits of the departed,—are but faint and failing memories of faculties and powers possessed by man in that far-off time? He might be bold who would venture to assert that such is true, but such a theory would assuredly gather into order and connection phenomena which hitherto have given pause to the thoughtful, and yet would accord with the leading facts of evolution. The Atlantis of the Grecian sages which went down beneath the sea may be more than a myth,—though it is hardly in the Atlantic that we must seek the submerged continent which afforded the race its birth-place; and the tradition recorded in our scriptures of a great prehistoric cataclysm, when every vestige of civilization was blotted from the earth, may be but another facet of the same truth. Who can forget that the story of a buried city at the foot of Vesuvius was deemed a fable and a fancy until the spade of the scientist in modern times disentombed from their long oblivion the art and architecture of Pompeii and Herculaneum; and no lover of Grecian life and Grecian thought can remember without a sigh that the civilization of that surpassingly great people,—the highest, perhaps, to which historic man has attained,—is but a memory and a tale, and that through the Dark Ages, until the re-birth of learning in Europe, Athens with its matchless marbles, its oratory, its poetry and its philosophy, was almost as much a myth as is for us the lost Atlantis!

It would be interesting to pursue in detail the theory of a prehistoric continent, the birth-place of the race and the seat of its forgotten splendor, and to show how many facts familiar to science and philosophy range themselves about the idea; but space forbids. Recalling, however, how much our amazement has been wrought upon by past discoveries, shall we feel surprise if the science of the future show that the race in very deed is but re-climbing, painfully and tardily, a height which far back in the lost ages it reached and passed?

THE SEVEN GODS OF BLISS.

BY TEITARO SUZUKI.

THERE is in Japanese folklore a group of supernatural beings popularly known as the seven gods of bliss, who in the order of their popularity are as follows: Daikok (The Great Black One), Ebis (The Stranger), Benzaiten (Goddess of Eloquence), Bishamonten (Vaishravana), Hotê (Linen-bag), Jurôjin (Old Man), and Fukrokju (Wealth and Long Life), or Kisshôten (goddess of Good). One of them only (Ebis) is of native origin; four others have been introduced from India and the three last mentioned from China. But their real birthplaces have long been forgotten by the people, and the gods have become thoroughly naturalized.

DAIKOK.

The first three, Daikok, Ebis, and Benzaiten, are almost equally popular, and it is difficult to give any one of them a preference over the other two. In Daikok we perceive a very peculiar and at the same time a very interesting example of the development, or rather transformation, of human fancy. Daikok is Mahâkâla of the Hindus and as such he is far from being a god of bliss. He is one of the most destructive and awe-inspiring deities in the Hindu pantheon. But we can understand the paradox by what might be called the law of opposition whereby two extremes frequently become interchangeable.

The Japanese Daikok is usually represented as either sitting or standing on rice sacks, with a "hammer of plenty" in his right hand and with a large bag on his left shoulder. He commonly wears a flat cap like those which we occasionally see on the heads of little American girls. He is always smiling as if ready to shake out any earthly treasure from his hammer according to the wishes of his devotees. His color is black, as is indicated by his name (*dai* =

"great," *kok* = "black"), but in his physiognomy there is not a single sign that betrays his original nature as the god of destruction.

The Hindu god Mahâkâla Deva is a manifestation of Shiva, the Hindu Chronos, for Kâla means in Sanskrit "time." The following passage as quoted in Moor's *Hindu Pantheon* (p. 33) from Paterson (*As. Res.*, Vol. VIII., p. 61) gives us a vivid image of this all-destroying god:

"Mahâkâla as represented in the caverns of Elephanta had eight arms. In one he holds a human figure; in another a sword or sacrificial axe; in a third he holds a basin of blood; and with a fourth he rings over it the sacrificial bell. Two other arms are broken off; with the two remaining he is drawing behind him a veil, which extinguished the sun and involves the whole universe in one undistinguished ruin. One of the titles of this tremendous deity is Bhavara, the terrific; but his principal designation is Kâla (time), Agni (fire), Rudra (fate)."

How then did this awe-inspiring deity come to be known as the Great Black One and revered as a god of bliss by the Japanese? On account of the lack of authentic records, we have at present no means of historically ascertaining the process of this singularly interesting transformation. It seems to have already taken place in India, before the time of I-Tsing's pilgrimage (A. D. 671-695). From his work, *Correspondence from the Southern Seas*, we epitomize the following accounts:

"In all the great Western (Indian) monasteries there stands by the kitchen pillar or post, or in front of a large store-room, a wooden image of a god, two or three feet in height, carrying a golden bag, and sitting on a small stool with one leg hanging down toward the floor. He is constantly smeared with oil which gives him a blackish appearance, and so he is called Mahâkâla, that is, Great Black God. According to tradition he belongs to the group of Mahâdevas. He is very kindly disposed toward the Three Treasures (*triratna*) and protects the five multitudes (of Buddhists) against destruction. Whoever asks his favor is sure to be gratified in his wishes. At meal time incense and fire are offered by the cooks, and also all kinds of food and drink are displayed on his altar."

I-Tsing concludes his remarks with the words: "All this was personally observed by myself."

Then the Chinese traveler relates the following story by way of an explanation of the foregoing. At a certain monastery about one

hundred monks used to be fed, but one time in the spring or fall, when one of the great festivals was about to take place, there arrived quite unexpectedly a multitude of monks numbering five hundred. It was then found to the great dismay of the cooks that the provision prepared for the occasion was utterly insufficient, and they were at a loss to know how to meet the emergency. At that time there was among the crowd the old mother of a Brahmacharin, who

DAIKOK.

EBIS.*

said to them, "This is nothing unusual. Do not trouble yourselves." She burned incense and fire on the altar of Mahâkâla and made him some offerings and prayed thus: "The great sage (Buddha) entered Nirvana, but his followers are still here. Monks coming from all quarters are desirous to pay homage to the holy places. Through thy grace let them not suffer from want of provision." She bade

* The illustrations in the text are from photographs of actors who impersonate these national gods in a mythological drama. The frontispiece of this number of *The Open Court* is a Japanese artist's idea of the same characters painted according to the traditional interpretations.

the people proceed as usual to distribute all the food they had at the time among the multitudes, and they found that it was more than sufficient to feed every one of the new comers.

It is strange to observe that Mahâkâla, the god of time, has here entirely lost his original significance, and that *Kâla* is understood to mean "black" instead of "time." Coleman in his *Hindu Mythology* says that Mahâkâli, the female counterpart of Mahâkâla, was commonly painted black or dark blue. Might it not then be possible that the original meaning of the god having been forgotten, he came to be known only by his conspicuously dark complexion and that later generations gave him their own interpretation?

EBIS.

Ebis—in spite of his name which means "foreigner" or "stranger"—is a thoroughly indigenous production of Japan. He belongs to the mythical age of Japanese history. He was the third child of Izanagi-no-Mikoto, the first mythical hero of Japan, and was the younger brother of the famous sun-goddess Amateras. He somehow incurred the displeasure of his elders and was expelled to the Western sea, where he spent his remaining life as a fisherman. Accordingly, he always wears an ancient Japanese court dress, with a fishing rod in his right hand and with a large reddish braize under his left arm. This fish, which is zoologically known as *pagrus cardinalis* or *major*, is considered by the Japanese the most delicious provision on the table, and as indispensable at all important festivals as is turkey at an American Thanksgiving dinner.

Ebis and Daikok are usually in the company of each other; Daikok may be said principally to be a patron of farmers, and Ebis of merchants and tradesmen. The birthday of Ebis which falls in November, is celebrated by the commercial people, especially the dry-goods dealers, by offering the public a special sale. Some think that any fancy needle work made of the material bought on Ebis day brings the owner good luck. One of the largest Japanese brewing companies is named after this god and uses his picture for a trade mark.

BENZAITEN.

Benzaiten's Sanskrit name is Sarasvatî Devî, which means "flowing water" or "eloquence," and her character has remained the same in Japan; only the Japanese paint her in their own fashion, for so far as the outside appearance goes, the identity between Saras-

vatî and Benzaiten is hardly recognizable. Muir in his *Original Sanskrit Texts*, V. 339, says of her:

"Sarasvatî is a goddess of some though not of any great importance in the Vedas. She is celebrated both as a river and a goddess. She was primarily a river deity, as her name 'watery' clearly denotes; and in this capacity she is celebrated in a few separate passages....The Sarasvatî thus appears to have been to the early Indians what the Ganges is to their descendants."

BENZAITEN.

JURÔJIN.

The tradition of Sarasvatî or Benzaiten as water goddess is not lost sight of in Japan, for we see her temples very frequently in isolated islands or in caverns on the sea-coast.

That she was also the goddess of eloquence, learning, writing, in short of general culture, is told by Sir W. Jones who says (*Works*, vol. XIII, p. 315):

"Sarasvati Devî is adored as the patroness of the fine arts, especially of music and rhetoric, as the inventress of the Sanskrit lan-

guage, of the Devanâgari characters, and of the sciences which writing perpetuates; so that her attitudes correspond with those of Minerva Musica in Greece or Italy, who invented the flute and presided over literature. In this character she is addressed in the ode; and particularly as the goddess of harmony, since the Hindus usually paint her with a musical instrument in her hand. The seven notes, an artful combination of which constitutes music and variously affects the passions, are feigned to be her earliest production."

Benzaiten in Japan is also the popular goddess of beauty. In stories of ancient Japan we read that when a mother wished to have handsome daughters, she went to the temple of Benzaiten, and confining herself in a special room or cave, she fasted and prayed with all her heart, generally for a period of seven days. In case her urgent wish was granted, the goddess manifested herself in a dream, and the child thus favored always surpassed all others in beauty and wisdom.

As Benzaiten is associated with water, she is often represented as standing or sitting on a dragon or sea-serpent, and sometimes assumes the shape of her sacred animal. In Hindu mythology she is pictured as riding on a peacock. In Japan as well as in India she holds a musical instrument in her hand, but the Japanese common sense hesitated to let her have more than two arms, while the fertile Indian imagination depicts her with four arms, though she looks more human than some other Hindu deities.

BISHAMON.

Bishamonten, or Bishamon, was also originally a Hindu god, whose Sanskrit name is Vaishravana. He is the god of wealth and one of the guardians of the four cardinal points of the universe. He is the guardian of the North. His other name is Kuvera. We read in Griffith's *Râmayana*, II, 20:

> "May he whose hands the thunder wield [Indra],
> Be in the East thy guard and shield:
> May Yama's care the South befriend,
> Varuna's arm the West defend:
> And let Kuvera, Lord of Gold,
> The North with firm protection hold."

In Buddhism the four guardian-gods are differently named: East, Dhrtârashtra; West, Virûpâksha; South, Virûdhaka; and North, Vaishravana. Some Hindu scholars say that this last-mentioned god did not play a very important part in the Hindu pantheon, and in spite of being Lord of Gold, no images or pictures

are to be had of him. As a Buddhist god he is well known and in all Buddhist countries his pictures and images are plentiful.

In the Japanese group of the seven gods Bishamon has lost his qualification as god of wealth. He is known only as the patron of knowledge, and it is in this capacity that he is sometimes called by the Japanese the God of Great Learning. Some of the great men in the history of Japan are believed to have been incarnations of this guardian of the North. Perhaps the Sanskrit name Vaishravana, which would be interpreted as being a derivative of the root *shru,* "to hear," might have suggested the rendering of his name by "much hearing," that is, "great learning."

Bishamon is not so popular as the preceding three, though many temples are dedicated to him and annual festivals are celebrated in his honor, In pictures and images he appears as holding a miniature tower or castle in his left hand and a spear in his right, which evidently symbolizes his function as guardian warrior-god.

It is not exactly known when all these Hindu deities were introduced into the Island Empire. The probability is that when Vajrabodhi, Amogha, and other representatives of the Mantra sect came from India to China in the eighth century, they brought along all these gods with many others. As this sect is a sort of hybrid of Buddhist and Tantric beliefs, it incorporated a great number of Hindu deities. When it was imported to Japan soon after its establishment in China, these wonderful creations of the Hindu mind proved very attractive to the popular conception of the masses.

HOTÊ.

Hotê, or Pu Tai in Chinese, was a wandering hermit of China who is believed to have lived in the latter part of the Tung dynasty (620-905 A. D.) One legend considers him an incarnation of Maitreya Buddha. He carries a large linen bag on his shoulders, and, a Japanese Santa Claus, is a great favorite with children, and wherever he appears they flock around him. Occasionally he may be seen among them distributing gifts dear to their hearts. He has no special name of his own. He is called Hotê, which is "linen bag," because the large bag on his back is very conspicuous and he is never seen without it. Aside from these meager accounts, the history of this Buddhist saint is lost in oblivion, and nobody now knows how it came to pass that he was admitted to our group of the seven gods of bliss. Probably, he signifies, the spiritual bliss of lovingkindness and childlike cheer.

Properly speaking, Hotê is not a god at all, and I do not believe the Japanese regard him as such. Nobody worships him, nobody prays to him for special favors, spiritual or material. Most likely it is as a jolly old fellow who is able to impart something humor-

HOTÊ.

ous to the severity of our daily struggle for existence, that he has been initiated into the congregation of the seven gods.

JURÔJIN.

Next comes Jurôjin which means "old venerable man." He symbolizes longevity and stands for the star Canopus which is called by the Chinese the star of longevity. We do not know at present how the luminary came to signalize the bliss of longevity. Jurôjin is thus of Chinese origin. The popular conception of him is to depict him as carrying a long staff made of natural wood and accompanied by a white stag,—the staff and the animal being symbols of holiness. Like Hotê just preceding, he is not really a god.

FUKROKJU.

The seventh god of bliss according to one tradition is Fukrokju, and according to another Kisshoten (Shridevî). Fukrokju is not

a historical figure nor is he a Hindu deity. He is simply a personification of the combined ideas, *fuk, rok* and *ju,* that is, Bliss, Wealth and Longevity,—these three being considered by the Chinese the most desirable things in the world. The most prominent physical mark of this mythical personage, as pictured by the Japanese, is his extraordinarily long head, as if our ordinary-sized cranium was not large enough to hold all his virtues, knowledge, and happiness,

FUKROJU.

BISHAMON.

which were added to him as he advanced in age. Other than as a mere symbol of bliss, he plays no interesting rôle in Japanese popular belief.

KISSHÔTEN.

Kisshôten is a goddess borrowed from India, her Sanskrit name being Shridevî. According to a Hindu scholar, she was the wife of Daksha by whom she had one hundred and one daughters. One of them was given her in answer to her earnest prayer to have a child

exactly like herself. This her duplicate named Sati was married to Mahâdeva. In Japan as in India she has done nothing important or significant. She is sometimes represented as scattering gems of luck, and people who own any one of them may use it, like Aladdin's lamp, to procure at their request all kinds of earthly treasures.

* * *

All these seven gods or genii travel on board a ship called *Takara-buné*, "boat of treasure," and pictures of it are sold on New Year's Eve. For there is an ancient custom in which superstitious people (and perhaps others also) are wont to indulge—to place the picture under their pillows at night in the hope that a pleasant dream will disclose all the good luck which the new year has in store for them. When the voice of the picture peddler rings through the cold clear night of December, many Japanese youths tremble with excitement to enjoy a glimpse at their future fortune, and the old feel rejuvenated by the festive sentiment that prevails. It is a night full of romantic imaginings—so dear to the Japanese of all classes.

SCHILLER THE DRAMATIST.

BY THE EDITOR.

[CONCLUSION.]

IN "William Tell" Schiller dramatizes the national hero of Switzerland, and the Swiss have always been grateful to the German poet for having given a final shape to the saga of the liberty-loving archer. The drama is based upon a legend which was localized in Switzerland about two hundred years after the incidents with which it has become associated. The legend itself is an ancient myth, and folklorists have gathered evidences that prove it to be the last echo of a primitive practice in which a human sacrifice had to be offered to the gods, but was given a chance of being ransomed by the dexterity and courage of a deliverer, who at the risk of his own life would be allowed to liberate the victim out of the clutches of death by his prowess and his skill in archery. Among some savage tribes this custom is still represented in dramatic performances in which both the offering of the sacrifice and its liberation have been changed into a religious ritual or a popular feast.

We may add that critics have always admired the poet's imagination in picturing in his drama not only the character of the Swiss, but also the details of the scenery of Switzerland, which is the more remarkable since Schiller had never set foot on Swiss ground, and yet his ideas of the country are as perfect as if he had been a native son of the Swiss mountains.

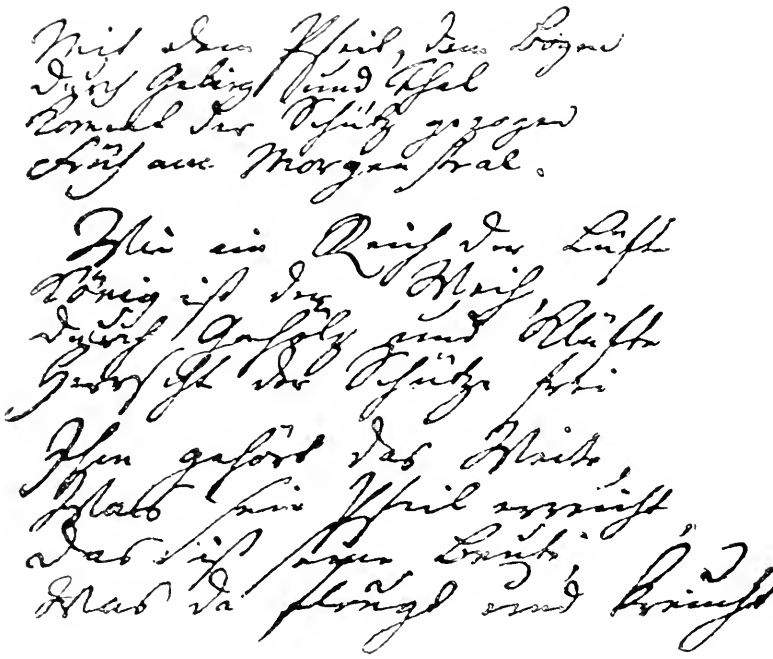
The spirit of the mountaineers is well characterized in a poem sung by Walter, Tell's little son, hence called "Walter's Song," which reads in an English translation thus:*

* The first and third stanzas are from Bowring's translation, and the second is the author's version.

"Bow and arrow bearing,
Over hills and streams
Moves the hunter daring,
Soon as daylight gleams.

"Like a king, the eagle
Realms of air surveys;
Hunter so with beagle,
Crag and mountain sways.

"Over space he reigneth,
And he makes his prize
All his bolt attaineth,
All that creeps or flies."



FACSIMILE OF SCHILLER'S HANDWRITING.
Walther's Lied.

The drama "William Tell" treats again the ideal of liberty and the struggle for independence against tyranny.

Switzerland is oppressed by Emperor Albrecht I, who wants to add the country of the free mountaineers to his own private dominion. The spirit of rebellion spreads from the hearts of a few men who have suffered wrong and pledge their honor by an oath of fidelity to the cause of freedom. Tell, however, keeps aloof; he can not be induced to join a conspiracy; though he is a ready deliverer of the oppressed in time of need. When others refuse assistance on account of the raging storm, Tell ferries a fugitive

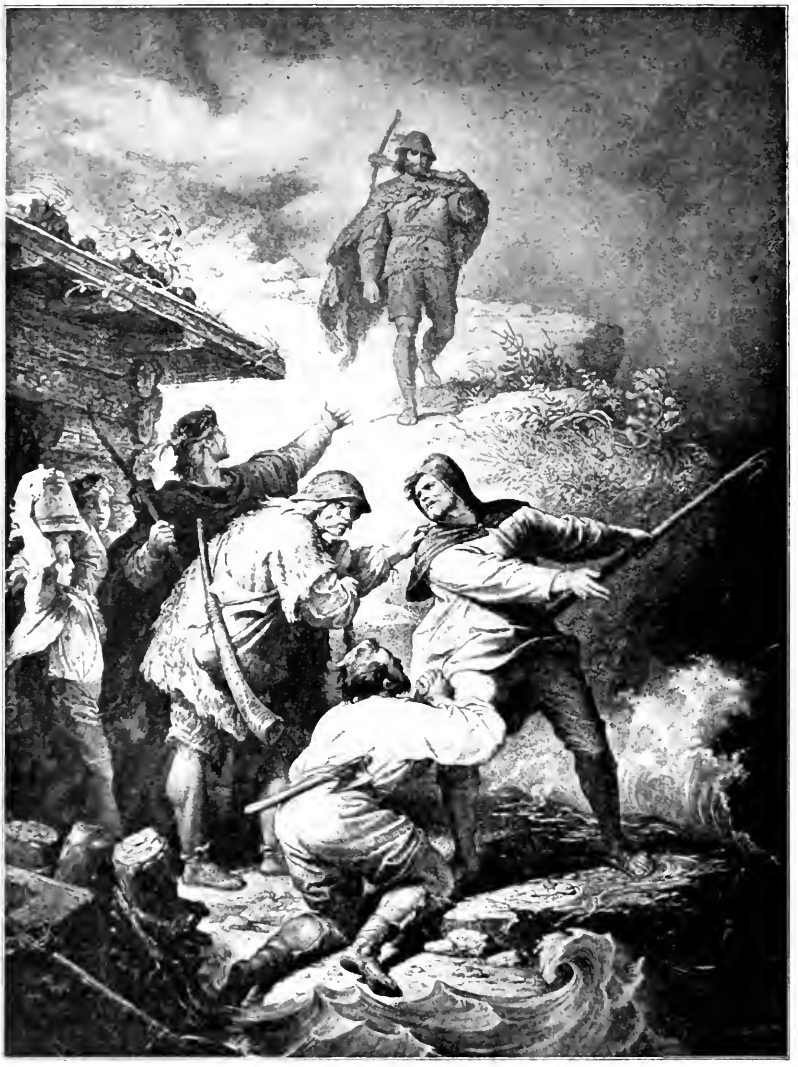
over the lake through the foaming billows and rescues him from the wrath of Gessler, the imperial governor.

In the meantime Tell, himself, falls into the hands of the tyrant's mercenaries by heedlessly passing by the hat put up on a staff for salutation without bowing to this emblem of despotism. Gessler happens to pass by and promises the offender his life if he should shoot the apple from the head of his little son Walter. With great reluctance Tell yields to the request, but takes out two arrows.

THE OATH.

Having accomplished the famous shot, he confesses that the second arrow was destined for the tyrant's heart, if the first one by accident should have hit his child. Thereupon the governor has Tell arrested and carried over the lake to the dungeon of his stronghold, Küssnacht. A storm comes up and the oarsmen despair. The man at the helm declares that Tell alone can save the ship. So the prisoner is unbound and steers the boat through the surge around the famous point of the rocky bank, now called Tell's Ledge. At the moment

when they pass the dangerous spot he quickly seizes his bow and quiver and leaps ashore, with his foot throwing the boat back into the lake. Now at last in self-defense he is forced to turn against



THE DELIVERER IN THE TIME OF NEED.

the tyrant and he shoots him in the hollow road that leads to Küssnacht.

THE SHOT AT THE APPLE.

At the same time the Swiss peasants take the several castles of their usurpers, and the venerable Baron Attinghausen, too old to take part in the war for liberty, rejoices to hear the good tidings.

TELL'S ESCAPE.

With his last breath he exhorts the people to unity, and his words: *"Seid einig, einig, einig!"* become to them a sacred heritage.

Schiller's drama "William Tell" has always been one of the favorite dramas of the German public although it has been officially prohibited at the Royal Theater of Berlin, because it might spread

THE DYING BARON'S EXHORTATION.

the spirit of rebellion among the people. But it may be confidently asserted that the old narrow-mindedness and the fear of Schiller's love for liberty has passed away, making room for a due (and let

us hope a lasting) appreciation of the great poet and his ideals. The imputation that Schiller is an anarchist is wrong, for he is careful to distinguish between the revolution for a righteous cause, and acts of lawlessness done for paltry and selfish motives in rebellion against established authority. A special scene is introduced in which Schiller plainly indicates that he does not wish to encourage assassination of sovereigns or representatives of authority, and so he contrasts

TELL AND JOHN PARRICIDA.

Tell with John Parricida, who assassinated his uncle, Emperor Albrecht I (May, 1308), for private and personal reasons.

The "Bride of Messina" is a play in which Schiller reproduces the old classical drama with its choruses, where fate rules supreme according to the irrefragable law of cause and effect, and men are mere puppets of their destiny. The subject-matter of the drama is the struggle between twin brothers, the princes of Messina, for the possession of a maiden whom they both love and who finally is recognized as their own sister. An oracle had foretold that she

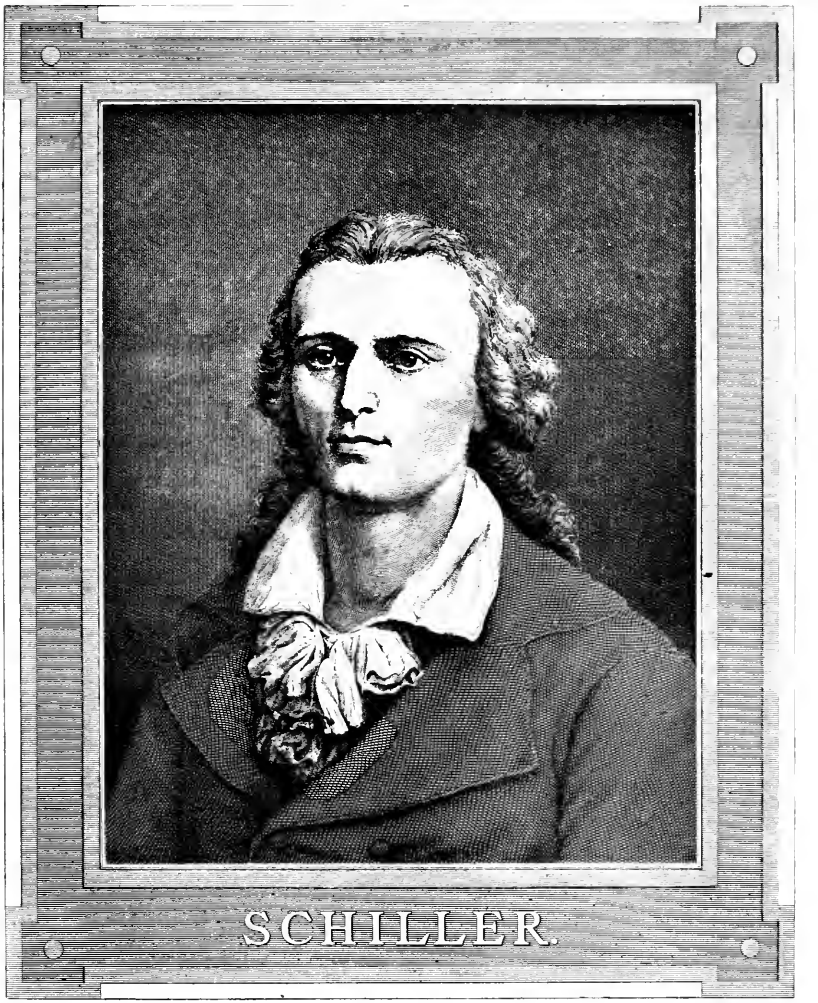
would be the cause of their destruction, and the very methods employed by the parents to prevent the misfortune, the concealment of the princess in a nunnery, and the ignorance in which her two

THE PRINCELY HUNTER MEETS THE MYSTERIOUS MAIDEN.

brothers are kept about the very existence of their sister, leads to the actualization of their doom. Both brothers find her, love her, fight for her possession and die in combat for her.

THE DESPAIR OF THE FRATRICIDE.

Among the plans of new dramas which Schiller intended to elaborate is one entitled "Demetrios" that appears to have been of great promise. It was intended to represent a pretender to the throne of the Czar, who thinks he is the real heir, and who is successful in his fight so long as he is convinced of his right, but the



catastrophe sets in when the assassin of the real Demetrios makes himself known to him as the person who had substituted another child for the dead prince and now he threateningly demands his reward of the successful pseudo-Demetrios. This new turn in his

destiny changes the character of the pretender. He quarrels with his benefactor and stabs him. This is the first deed that casts a shadow upon his career. Forthwith he is another man; he has lost faith in himself and others. His ideal, his veracity, his trust in the justice of his cause are gone, and falsehood, cunning, treachery and dark deeds of terrorism take their place preparing his final downfall.

Schiller as a dramatist differs from Shakespeare. While the English poet introduces on the stage characters such as they were or might be in actual life, Schiller superadds thereto his own personality, usually represented by one or two leading characters. Shakespeare is a realist, Schiller himself always speaks through the mouth of his hero or heroine. His dramas preach the gospel of the eternally beautiful, the true, and the good, and some character pronounces Schiller's message to the world in unmistakable language. Shakespeare, to be sure, always preaches moral lessons, but he does it by indirection; the spectator has to make his own application. Shakespeare paints life with all its shadows and bright sides, and rarely, if ever, introduces ideal characters such as Max Piccolomini, or Thecla; while Schiller feels always urged to introduce in some way or other his own ideals voiced by a personality like unto himself.

We will not criticize here, but allow each poet to apply his own method and to follow his own inclination. Either way is perfectly justified; but we wish to insist on the greatness of Schiller who, together with Shakespeare and Goethe, must be recognized as one of the greatest dramatists of the world.

A SUGGESTION FOR THE AMERICAN STAGE.

America does not yet possess a national drama. All productions which have so far passed over the American stage are mere business enterprises, being written for the purpose of making money. What we need is a drama of character written by a poet who will hold up to the nation the eternal ideals in a similar spirit and with the same seriousness as did the great dramatists of the past, Shakespeare, Goethe and Schiller.

The stage can become a religious institution; it ought to be (as Lessing wanted it) a pulpit from which the poet speaks to the people, proclaiming the gospel of art, the religion of truth, of goodness, of beauty. A true poet is a preacher, a teacher and an educator. Schiller has been such to the German nation, and let us hope that he will find a successor in the new world worthy of pursuing the same aim and accomplishing the same kind of work on a larger

scale for the people of the future destined to actualize the next higher stage in the evolution of mankind.

We will not finish this article without making a suggestion to our wealthy fellow-citizens, if happily there be one among them who might feel in his soul the noble aspiration to become a Maecenas of dramatic art. What is sorely needed in our national development is a stage supported by a sufficient donation so as to be absolutely independent of financial success, destined to serve the highest ideal of genuine art. Our public is willing to support that which is good, and would gladly lend a hand, but they are too easily misguided by the mercantile press reviews of theatrical affairs, and so the manager of a stage has to offer what is wanted, not what is needed. He has to heed the taste of the masses, not of the few worthy to judge, the few presenting a spiritual aristocracy. The result is that a great poet would not be encouraged while the frivolous trifler with showy attractions is always sure of success. Shakespeare still draws because he has the name and the fame. Our public are willing to see his dramas because they are convinced that they are good. But if a new Shakespeare would rise, still unknown and untried, he would have a hard time to find recognition and he would have to adapt himself to the requirements of the present age; he must cater to the taste of the masses. An endowed stage could bring before the public the products of a genius who would address himself to the elect few and having passed the ordeal of competent criticism would then easily find also the applause of the masses.

Germany would never have developed that unusual wealth of literature so brilliantly represented by Goethe and Schiller, had not geniuses been fostered and protected by German princes. If our civilization shall be worthy of the great hope that we have of its future, if it shall surpass the culture of the old world and rise superior to the great achievements of the past we must adopt the methods that have proved beneficial in former days. We must guide the people, educate the artistic judgment of the public, and give genius a chance to assert itself.

QUESTIONS FROM THE PEW.

BY FRANKLIN N. JEWETT.

PAUL'S DOCTRINE OF FAITH FROM THE OLD TESTAMENT.

THIS topic leads to a consideration of Paul's references to Abraham. His argumentation from the history of Abraham is very prominent, both in Galatians and Romans.

In Gal. iii. 6 we read, "Even as Abraham believed God, and it was reckoned unto him for righteousness." The argument based upon the passage is greatly extended in the fourth chapter of Romans. Chief importance is attached to the fact that Abraham was thus accepted before the rite of circumcision was instituted. Therefore his acceptance with God was not dependent upon it. In Paul's words the argument is, "To Abraham his faith was reck-"oned for righteousness. How then was it reckoned? When he "was in circumcision, or in uncircumcision? Not in circumcision, "but in uncircumcision: and he received the sign of circumcision, "a seal of the righteousness of the faith which he had while he was "in uncircumcision: that he might be the father of all them that "believe, though they be in uncircumcision, that righteousness might "be reckoned unto them; and the father of circumcision to them "who not only are of the circumcision, but who also walk in the "steps of that faith of our father Abraham which he had in circum-"cision. For not through (the) law was the promise to Abraham, "or to his seed, that he should be heir of the world, but through the "righteousness of faith." (Rom. iv. 9, b.-13.)

In Galatians Paul is writing to Gentile converts. They had been led away from faith in Christ as sufficient for salvation, which was the Gospel that Paul had preached to them. They had been told that the observance of the Jewish law, or especially of the rite of circumcision, was essential. Paul is endeavoring to bring them back to their former belief and practice. His position is that their

observance of the Jewish law, so far from being essential to their salvation, would be seriously, if not fatally, detrimental to it. He goes so far as to say (v. 2), "Behold, I Paul say unto you that, if ye receive circumcision, Christ will profit you nothing."

At this time of course, Christianity had not yet been separated from Judaism. The Christians were continuing with the Jews in the temple worship at Jerusalem; and the former seem to have been quite as zealous for the law as the latter. In the account of Paul's last visit to Jerusalem (Acts xxi. 18-21) we read: "And the day "following Paul went in with us unto James; and all the elders "were present. And when he had saluted them, he rehearsed one "by one the things which God had wrought among the Gentiles by "his ministry. And they, when they heard it, glorified God; and "they said unto him, Thou seest, brother, how many thousands there "are among the Jews of them who have believed; and they are all "zealous for the law: and they have been informed concerning thee, "that thou teachest all the Jews who are among the Gentiles to for- "sake Moses, telling them not to circumcise their children, neither "to walk after the customs."

It seems very naturally to have been claimed by Jewish Christians that in order to participate in the blessings to be conferred by Christ, who was believed to be Messiah, Gentile nations or individuals must observe the Jewish law, must virtually join, or become, the people of Jehovah. Proselytism was familiar, and involved the fulfilment of such conditions, and, prominently, submission to the rite of circumcision. The Jews were to be a blessing to many or to all nations; but this was, very largely at least, to be due to the acceptance by them of the Jewish law. "For out of Zion shall go forth the law, and the word of the Lord from Jerusalem." (Is. ii. 3.) "And the isles (or, coastlands) shall wait for his law." (Is. xlii. 4.)

Now we are told in Genesis that circumcision was instituted to be observed forever. "And I will establish my covenant between "me and thee and between thy seed after thee throughout their "generations for an everlasting covenant, to be a God unto thee "and to thy seed after thee....And God said unto Abraham, And "as for thee, thou shalt keep my covenant, thou, and thy seed after "thee throughout their generations. This is my covenant which ye "shall keep, between me and you and thy seed after thee; every "male among you shall be circumcised,....and my covenant shall "be in your flesh for an everlasting covenant. And the uncircum- "cised male...., that soul shall be cut off from his people; he hath

"broken my covenant." Can there be any doubt about the intended perpetuity of this rite? (Gen. xvii. 7-14.)

A passage from the twelfth chapter of Exodus is also pertinent in this connection as showing the relation between the observance of this rite and participation in the privileges of Israel. Verses 43, 44 and 48 read: "And the Lord said unto Moses and Aaron, This is "the ordinance of the passover; there shall no alien eat thereof: but "every man's servant that is bought for money, when thou hast cir-"cumcised him, then he shall eat thereof....And when a stranger "shall sojourn with thee, and will keep the passover to the Lord, "let all his males be circumcised, and then let him come near and "keep it; and he shall be as one that is born in the land: but no uncircumcised person shall eat thereof."

The time of Paul's letter to the Galatians was a momentous one in the history of the Church. It was a time of transition and of much conflict. The latter can hardly be considered surprising, in view of the circumstances. The above passage from which Paul quotes, in his use of the faith of Abraham is Gen. xv. 5, 6: "And he "(the Lord) brought him forth abroad, and said, Look now toward "heaven, and tell the stars, if thou be able to tell them: and he said "unto him, So shall thy seed be. And he believed in the Lord; and "he counted it to him for righteousness."

Now the pertinency of Paul's calling attention to Abraham for the purpose of enjoining belief in God is manifest; but the faith which Paul preached was far from being identical with the belief reported of Abraham. The latter was belief in a promise that had been directly made to him by God; Paul was preaching faith in Christ as a sacrificial and sufficient saviour for all who should believe in him as such.

As regards the example of Abraham, could not Paul with equal, in fact with greater, cogency have referred to him as one who unswervingly obeyed every commandment of God, and so have used his history as a conclusive argument *for* the observance of circumcision? How could Abraham's belief in God and his acceptance or merit, because of it be used as an argument for not observing the Lord's ordinances? Was Abraham's reported belief of such a kind that he might, or would, excuse himself from obedience because of it? Certainly not. Then how could his example furnish a valid argument for such neglect at a later date? Why could not the Jews and Judaizing Christians properly say, as they doubtless did say, that those who had faith like Abraham would obey like

Abraham? Faith, of course, leads to obedience; and its possession is a strange reason indeed to give for disobedience.

In further connection with Abraham, Paul's argument in Gal. iii. 15-18 is to be noticed. This argument is made in support of his doctrine of faith in Christ and of the insufficiency of the law. He says that the promises were made to Abraham and his seed, which was Christ. Therefore the coming of the law centuries afterward could not invalidate the promise, considered as a covenant. He says: "Brethren, I speak after the manner of men (i. e., using the "acts and conceptions common among men): Though it be but a "man's covenant, yet when it hath been confirmed, no one maketh "it void or addeth thereto. Now to Abraham were the promises "spoken, and to his seed. He saith not, And to seeds, as of many; "but as of one, And to thy seed, which is Christ. Now this I say; "A covenant confirmed beforehand by God, the law, which came "four hundred and thirty years after, doth not disannul, so as to "make the promise of none effect. For if the inheritance is of the "law, it is no more of promise: but God hath granted it to Abraham by promise."

Obviously the identification of Christ with the "seed" of the promises referred to is essential to the validity of this argument. Paul carefully excludes a plural or collective meaning of the word, and makes it signify *one,* "which is Christ." Has the argument any validity? The word "seed" in such connections, is a collective term, having precisely the meaning of "many," which Paul rejects. To have used the plural form, "seeds," in order to convey the meaning of "many," would have been not only unnecessary but improper. We understand furthermore, that the case is precisely the same in the original Hebrew, that the Hebrew word here has the singular form and collective meaning, the same as the English one. This certainly seems to leave Paul's argument here without foundation, even without reading the original passages at any length. But turning to these, in order to see what meaning the connection, in the several instances, may show for this word *seed,* we read (Gen. xiii. 14-16): "And the Lord said unto Abram, after that Lot "was separated from him, Lift up now thine eyes, and look from the "place where thou art, northward and southward and eastward and "westward: for all the land which thou seest, to thee will I give it, "and to thy seed forever." Gen. xv. 5: "And he brought him forth "abroad, and said, Look now toward heaven, and tell the stars, if "thou be able to tell them; and he said unto him, So shall thy seed "be." Gen. xvii. 7-9: "And I will establish my covenant between me

"and thee and thy seed after thee throughout their generations for "an everlasting covenant, to be a God unto thee and to thy seed "after thee. And I will give unto thee and to thy seed after thee, "the land of thy sojourns, all the land of Canaan, for an ever-"lasting possession: and I will be their God. And God said unto "Abraham, And as for thee, thou shalt keep my covenant, thou, and "thy seed after thee throughout their generations." Gen. xxii. 16-18: "By myself have I sworn, saith the Lord, because thou hast done "this thing, and hast not withheld thy son, thine only son: that in "blessing I will bless thee, and in multiplying I will multiply thy "seed, as the stars of heaven, and as the sand which is upon the "sea-shore; and thy seed shall possess the gate of his enemies; and "in thy seed shall all the nations of the earth be blessed (or, bless "themselves); because thou hast obeyed my voice."

Could any thing be plainer? May we be excused the superfluity of calling attention again to the latter part of xvii. 9: "And as for thee, thou shalt keep my covenant, thou, and thy seed after thee throughout *their* generations"?

To say that Christ was the spiritual Israel, and hence was included in the "seed," if admittedly true, would not answer here. Paul's argument is very different. It turns upon the form of a word. It excludes the meaning of "many." It does not admit such conception as that of "their" above. Can it have any validity whatever?

Another passage of prominence in Paul's support of his doctrine from the Old Testament is quoted in Gal. iii. 11 and Romans i. 17. Rom.: "For therein (in the Gospel) is revealed a righteousness of "God from faith unto faith: as it is written, But the righteous shall "live by faith." Gal.: "Now that no man is justified by (or, in) "the law in the sight of God is evident: for the righteous shall live "by faith; and the law is not of faith." The words are taken from Habakkuk ii. 4. Paul uses the passage as a proof text. Does it sustain his proposition? Verses 2-4 are: "And the Lord answered "me, and said, Write the vision, and make it plain upon tables, that "he may run that readeth it. For the vision is yet for the appointed "time, and it hasteth toward the end, and shall not lie: though it "tarry, wait for it; because it will surely come, it will not delay. "Behold, his soul is puffed up, it is not upright in him: but the just "shall live by his faith. (Margin, in his faithfulness.)" "Constancy" is also given as a proper translation of the word translated "faith."

If the word means *faith* in the sense of *faithfulness*, fidelity,

constancy, then Paul is entirely wide of the mark in quoting it; for in his doctrine which in the passages under consideration he is especially endeavoring to sustain, a person's constancy, fidelity, faithfulness, as a ground of his justification, are explicitly excluded. We understand that the word in question, if applied to the body as a noun, would mean "firmness," "steadfastness," as in Exod. xvii. 12. Moses's hands, with the assistance of Aaron and Hur, were "steady." The word is used of God in Deut. xxxii. 4: "A God of faithfulness," and it is used of men in Prov. xii. 22: "Lying lips are an abomination to the Lord; but they that deal truly, (or do faithfulness) are his delight."

The "vision" in Habakkuk was one of coming destruction, but in the midst of it all, the righteous man should live in his faithfulness, or constancy. He would be saved by it, which is a familiar Old Testament conception. This seems exactly to fit the situation as well as to be in accord with the meaning of the word elsewhere.

This meaning of the word prevails also in its use in Hebrews x. 36-38. The writer is exhorting to confidence and constancy amid severe trials. He says: "For ye have need of patience (or stead-"fastness), that, having done the will of God, ye may receive the "promise. For yet a very little while, He that cometh shall come, "and shall not tarry. But my (or, the) righteous one shall live by "faith: And if he shrink back, my soul hath no pleasure in him." Paul plainly quotes from the common Greek translation of the Old Testament, as does also the writer of Hebrews; and in this the common word for faith is used in this place. This fact, however, has no bearing upon whether or not the original passage sustains Paul's use of it. Can it be said to do so?

Another passage in Paul's support of his special doctrine from the Old Testament is Romans x. 6-9. It may be noted that in this epistle Paul is writing, in part certainly, to Jews; and in chapters ix-xi he is writing of them particularly. That God's people had not accepted their Messiah presented to Paul a very painful problem. How could God's promises so fail of fulfilment? He concludes that the Jews failed to receive the blessing because they sought it by works, by the keeping of the law. He says: "But Israel, follow-"ing after a law of righteousness, did not arrive at that law. Where-"fore? Because they sought it not by faith, but as it were by works." Paul quotes from Deuteronomy to show the contrast.

He prefaces this quotation, however, by giving a portion of Lev. xviii. 5, a passage of course generally well known: "For Moses writeth that the man that doeth the righteousness which is of the

law shall live thereby." But Paul repeatedly says that by works of the law shall no flesh be justified. The seeming opposition between the two statements is adjusted by the claim, both made and implied, that nothing less than perfect obedience would be sufficient, and that this no man can render; "There is none that doeth good, no, not so much as one."

Verses 6-9, above referred to, of the tenth chapter of Romans are: "But the righteousness which is of faith saith thus, Say not in "thy heart, Who shall ascend into heaven (that is to bring Christ "down:) or, Who shall descend into the abyss? (that is to bring "Christ up from the dead.) But what saith it? The word is nigh "thee, in thy mouth, and in thy heart: that is, the word of faith "which we preach: because if thou shalt confess with thy mouth "Jesus as Lord, and shalt believe in thy heart that God raised him "from the dead, thou shalt be saved."

The words in the parentheses are explanatory matter introduced by Paul. The original passage from which Paul quotes, Deut. xxx. 11-14, is: "For this commandment which I command thee this day, "it is not too hard for thee, neither is it far off. It is not in heaven, "that thou shouldst say, Who shall go up for us to heaven, and "bring it unto us, and make us to hear it, that we may do it? Neither "is it beyond the sea, that thou shouldst say, Who shall go over the "sea for us, and bring it into us, and make us to hear it, that we "may do it? But the word is very nigh unto thee, in thy mouth, and "in thy heart, that thou mayest do it."

We submit that we are here in the midst of ideas which are very different from those which Paul presents by his use of the passage. Here we have the law, the commandment, and the repeated injunction that the people were to do it. Paul leaves this out.

The commandment and the doing of it are still further emphasized by the context in Deuteronomy, both before and after. This point is made so emphatic that further quotations may well be given. The opening verses of the chapter are: "And it shall come "to pass, when all these things are come upon thee, the blessing "and the curse, which I have set before thee, and thou shalt call "them to mind among all the nations, whither the Lord thy God "hath driven thee and shalt return unto the Lord thy God, and shalt "obey his voice according to all that I command thee this day, thou "and thy children, with all thine heart, and with all thy soul; that "then the Lord thy God will turn thy captivity, and have com-"passion upon thee, and will return and gather thee from all the "peoples, whither the Lord thy God hath scattered thee." Imme-

diately preceding the passage from which Paul quotes we find, "And "thou shalt return and obey the voice of the Lord, and do all his "commandments which I command thee this day. And the Lord "thy God will make thee plenteous in all the work of thine hand,.... "if thou shalt obey the voice of the Lord thy God, to keep his com- "mandments and his statutes which are written in the book of the "law; if thou turn unto the Lord thy God with all thine heart, and "with all thy soul." And immediately after the passage we find: "See, I have set before thee this day life and good, and death and "evil; in that I command thee this day to love the Lord thy God, "to walk in his ways and to keep his commandments and his statutes "and his judgments,....that the Lord thy God may bless thee in "the land whither thou goest in to possess it."

How can one fail to be convinced that Paul's use of this Deuteronomy passage was most unfortunate?

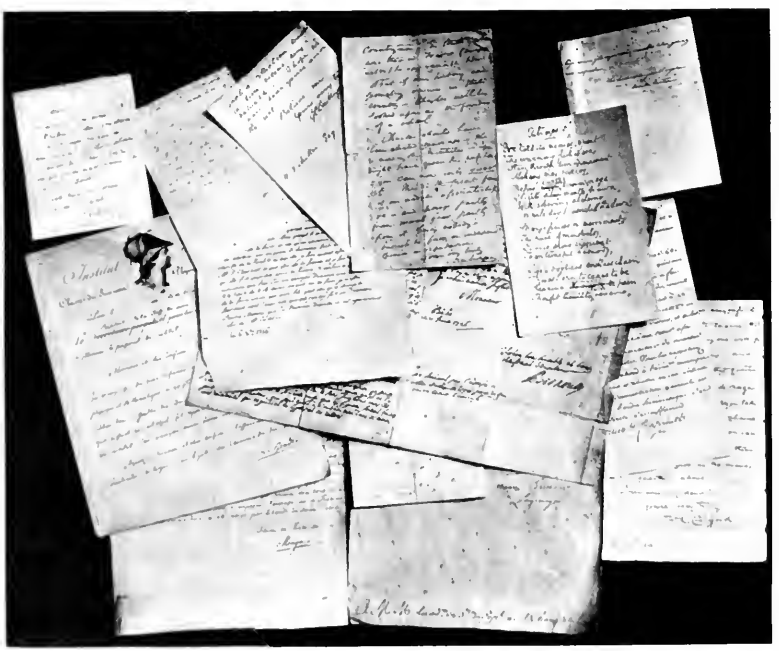
IN THE MAZES OF MATHEMATICS.

A SERIES OF PERPLEXING QUESTIONS.

BY WM. F. WHITE, PH. D.

X. AUTOGRAPHS OF MATHEMATICIANS.

FOR the photograph from which this cut was made the writer is indebted to Prof. David Eugene Smith. As an explorer in the



bypaths of mathematical history and a collector of interesting specimens therefrom, Dr. Smith is, perhaps, without a peer.

The reader will be interested to see a facsimile of the handwriting of Euler and Johann Bernoulli, Lagrange and Laplace and

Legendre, Clifford and Dodgson, and William Rowan Hamilton, and others of the immortals, grouped together on one page. In the upper right corner is the autograph of Moritz Cantor, the historian of mathematics. On the sheet overlapping that, the name over the verses is faint; it is that of J. J. Sylvester, late professor in Johns Hopkins University.

One who tries to decipher some of these documents may feel that he is indeed "In the Mazes of Mathematics." Mathematicians are not as a class noted for the elegance or the legibility of their chirography, and these examples are not submitted as models of penmanship. But each bears the sign manual of one of the builders of the proud structure of modern mathematics.

XI. BRIDGES AND ISLES, FIGURE TRACING, UNICURSAL SIGNATURES, LABYRINTHS.

This section presents a few of the more elementary results of the application of mathematical methods to these interesting puzzle questions.*

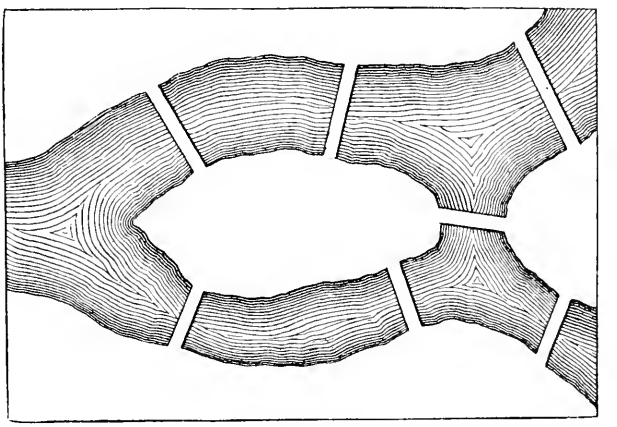


Fig. 1.

The city of Königsberg is near the mouth of the Pregel river, which has at that point an island called Kneiphof. The situation of the seven bridges is shown in the figure. A discussion arose as to whether it is possible to cross all the bridges in a single prom-

* For a more extended discussion, and for proofs of the theorems here stated, see Euler's *Solutio Problematis ad Geometriam Situs Pertinentis*, Listing's *Vorstudien zur Topologie*, Ball's *Mathematical Recreations and Essays*, Lucas's *Récréations Mathématiques*, and the references given in notes by the last two writers named. To these two the present writer is especially indebted.

enade without crossing any bridge a second time. Euler's famous memoir was presented to the Academy of Sciences of St. Petersburg in 1736 in answer to this question. Rather, the Königsberg problem furnished him the occasion to solve the general problem of any number and combination of isles and bridges.

Conceive the isles to shrink to points, and the problem may be stated more conveniently with reference to a diagram as the problem of tracing a given figure without removing the pencil from the paper and without retracing any part; or, if not possible to do so with one stroke, to determine *how many* such strokes are necessary. Fig. 2 is a diagrammatic representation of Fig. 1, the isle Kneiphof being at point K.

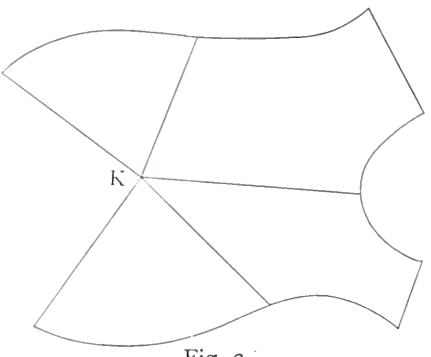


Fig. 2.

The number of lines proceeding from any point of a figure may be called the *order* of that point. Every point will therefore be of either an even order or an odd order. E. g., as there are 3 lines from point A of Fig. 3, the order of the point is odd; the order of point E is even. The well-known conclusions reached by Euler may now be stated as follows:

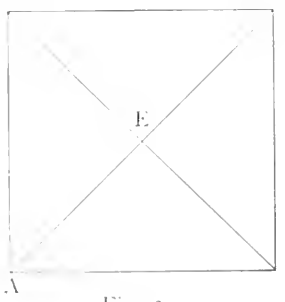


Fig. 3.

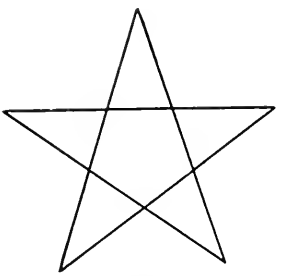


Fig. 4.

In a closed figure (one with no free point or "loose end") *the number of points of odd order is even*, whether the figure is unicursal or not. E. g., Fig. 3, a multicursal closed figure, has *four* points of odd order.

A figure of which every point is of even order can be traced

by one stroke starting from any point of the figure. E. g., Fig. 4, the magic pentagon, symbol of the Pythagorean school, and Fig. 5, a "magic hexagram commonly called the shield of David and frequently used on synagogues" (Carus), have no points of odd order; each is therefore unicursal.

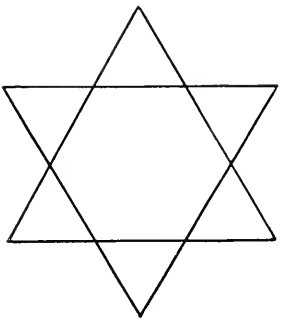


Fig. 5.

A figure with only two points of odd order can be traced by one stroke by starting at one of those points. E. g., Fig. 6 (taken originally from Listing's *Topologie*) has but two points of odd order, A and Z; it may therefore be traced by one stroke beginning at either of these two points and ending at the other. One may make a game of it by drawing a figure, as Lucas suggests, like Fig. 6 but in a larger scale on cardboard, placing a small counter on the middle of each line that joins two neighboring

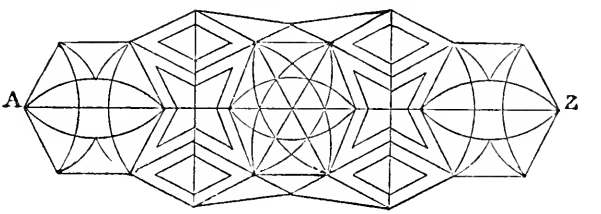


Fig. 6.

points, and setting the problem to determine the course to follow in removing all the counters successively (simply tracing continuously and removing each counter as it is passed, an objective method of recording which lines have been traced).

A figure with more than two points of odd order is multicursal. E. g., Fig. 7 has more than two points of odd order and requires more than one course or stroke, to traverse it.

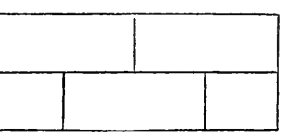


Fig. 7.

The last two theorems just stated are special cases of Listing's:

Let 2n represent the number of points of odd order; then n strokes are necessary and sufficient to trace the figure. E. g., Fig. 6, with 2 points of odd order, requires 1 stroke; Fig. 7, representing a fragment of masonry, has 8 points of odd order and requires 4 strokes.

Return now to the Königsberg problem of Fig. 1. By ref-

erence to the diagram in Fig. 2, it is seen that there are 4 points of odd order. Hence it is not possible to cross every bridge once and but once without taking two strolls.

An interesting application of these theorems is the consideration of the number of strokes necessary to describe an n-gon and its diagonals. As the points of intersection of the diagonals are all of even order, we need to consider only the vertexes. Since from each vertex there is a line to every other vertex, the number of lines from each vertex is $n - 1$. Hence, if n is odd, every point is of even order, and the entire figure can be traced unicursally beginning at any point; e. g., Fig. 8, a pentagon with its diagonals. If n is even, $n - 1$ is odd, every vertex is of odd order, the number of points of odd order is n, and the figure can not be described in less than $n/2$ courses; e. g., Fig. 3, quadrilateral, requires 2 strokes.

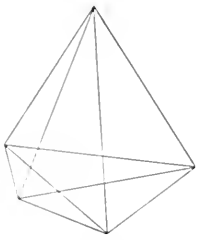


Fig. 8.

Unicursal Signatures. A signature (or other writing) is of course subject to the same laws as are other figures with respect to the number of times the pen must be put to the paper. Since the terminal point could have been connected with the point of starting without lifting the pen, the signature may be counted as a closed figure if it has no free end but these two. The number of points of odd order will be found to be even. The dot over an *i*, the cross of a *t*, or any other mark leaving a free point, makes the signature multicursal. There are so many names not requiring separate strokes that one would expect more unicursal signatures than are actually

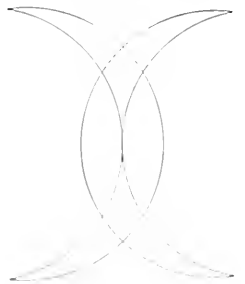


Fig. 9.

Fig. 10.

found. De Morgan's (as shown in the cut in the preceding section) is one; but most of the signatures there shown were made with several strokes each. Of the signatures to the Declaration of Independence there is not one that is strictly unicursal; though that of

Th Jefferson looks as if the end of the *h* and the beginning of the *J* might often have been completely joined, and in that case his signature would have been written in a single course of the pen.

Fig. 9, formed of two crescents, is "the so-called sign-manual of Mohammed, said to have been originally traced in the sand by the point of his scimetar without taking the scimetar off the ground or retracing any part of the figure," which can easily be done beginning at any point of the figure, as it contains no point of odd order. The mother of the writer suggests that, if the horns of Mohammed's crescents be omitted, a figure (Fig. 10) is left which can not be traced unicursally. There are then four points of odd order; hence two strokes are requisite to describe the figure.

Labyrinths such as the very simple one shown in Fig. 11 (published in 1706 by London and Wise) are familiar, as drawings, to

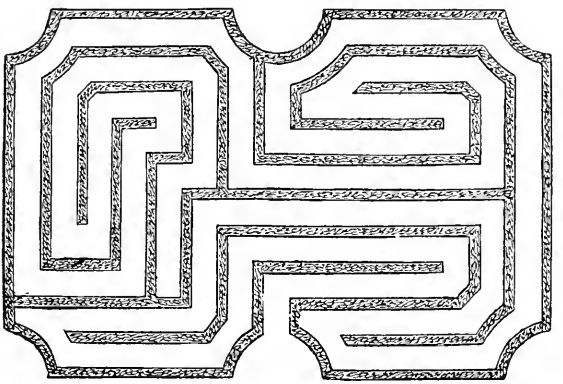


Fig. 11.

every one. In some of the more complicated mazes it is not so easy to thread one's way, even in the drawing, where the entire maze is in sight, while in the actual labyrinth, where walls or hedges conceal everything but the path one is taking at the moment, the difficulty is greatly increased and one needs a rule of procedure.

The mathematical principles involved are the same as for tracing other figures; but in their application several differences are to be noticed in the conditions of the two problems. A labyrinth as it stands, is not a closed figure; for the entrance and the center are free ends, as are also the ends of any blind alleys that the maze may contain. These are therefore points of odd order. There are usually other points of odd order. Hence in a single trip the maze can not be completely traversed. But it is not required to do so. The problem here is to go from the entrance to the center, the

shorter the route found the better. Moreover, the rules of the game do not forbid retracing one's course.

It is readily seen (as first suggested by Euler) that by going over each line twice the maze becomes a closed figure, terminating where it begins, at the entrance, including the center as one point in the course, and containing only points of even order. Hence every labyrinth can be completely traversed by going over every path twice —once in each direction. It is only necessary to have some means of marking the routes already taken (and their direction) to avoid the possibility of losing one's way. This duplication of the entire course permits no failure and is so general a method that one does not need to know anything about the particular labyrinth in order to traverse it successfully and confidently. But if a plan of the labyrinth can be had, a course may be found that is shorter.

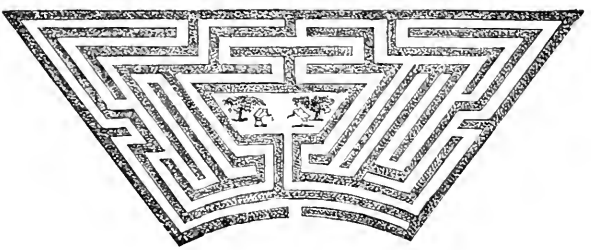


Fig. 12.

Fig. 12 presents one of the most famous labyrinths, though by no means among the most puzzling. It is described in the *Encyclopædia Britannica* (article "Labyrinth") as follows:

"The maze in the gardens at Hampton Court Palace is considered to be one of the finest examples in England. It was planted in the early part of the reign of William III, though it has been supposed that a maze had existed there since the time of Henry VIII. It is constructed on the hedge and alley system, and was, we believe, originally planted with hornbeam, but many of the plants have died out, and been replaced by hollies, yews, etc., so that the vegetation is mixed. The walks are about half a mile in length, and the extent of ground occupied is a little over a quarter of an acre. The center contains two large trees, with a seat beneath each. The key to reach this resting place is to keep the right hand continuously in contact with the hedge from first to last, going around all the stops."

GOETHE'S POLYTHEISM AND CHRISTIANITY.

BY THE EDITOR.

GOETHE was sometimes a pantheist after the heart of Spinoza, and sometimes a polytheist who found the most perfect exposition of his religious views in Greek mythology, and then again a Christian and a theist. To be sure he did not believe in the gods of Greece in the crude sense of paganism or idolatry, but recognized their presence in life after the fashion of the Greek sages, or perhaps better, of modern naturalists, conceiving the gods as factors that shape our lives. Goethe himself calls them "blissfully creating forces."[1]

Goethe discussed the nature of the deity with his friend Jacobi and it is well known that the poet's pagan spirit frequently proved offensive to the piety of this devout Christian; but it would be wrong to think that Goethe was an enemy to Christianity, for he was both Christian and pagan at once.

Goethe's religious attitude has mostly been misunderstood. Though he gave ample evidence of his sympathy with Christian sentiment, he was not a Christian in the narrow sense of the word. To him Christianity was one form of religion like others, and he attributed greater importance to polytheism on account of its creative and artistic tendencies than to any doctrine of monotheism. Goethe had no objection to Christianity itself, but in his Christian friends he denounced the narrow spirit which would brook no other religions and would condemn as an object of abomination any different attempt at comprehending the divine. The Christian god-conception was to him one aspect only which needed correction by considering the truth of the pagan view, and, argued Goethe: Is not the Christian view after all quite abstract and imaginary in comparison to the concrete figures of the Olympian pantheon? If God is a spirit, his existence must be purely spiritual, i. e., he must live in the brain of man.

[1] *Selig mitschaffende Kräfte.* "Unterhaltung mit Falk," January 25, 1813.

DIANA OF THE EPHESIANS.

From an illustration by H. Knackfuss in Düntzer's German edition of Goethe's Works.

...."behind
Man's foolish forehead, in his mind."

This spirit God would be subjective and could not be found outside in nature, in the concrete world of objective existence.

This idea is expressed in the poem "Great is Diana of the Ephesians," in which the artist's attitude represents Goethe's own sentiment. The artist chisels his ideal, the great goddess of the Ephesians, while Paul is preaching against idols.

GREAT IS DIANA OF THE EPHESIANS.
(Acts xix. 28.)

"At Ephesus in his workshop sat
A goldsmith, filing and beating
A golden statue; he wrought thereat,
Still improving and further completing.
As boy and as youth at the goddess's shrine,
He had knelt and adored her form so divine;
Below the girdle there under her breast,
He saw so many creatures rest,
And faithfully at home he wrought
The image, as his father taught.
So did the artist with skill and patience
Conduct his life and art aspirations.

"And once he heard a raging crowd,
Howl through the streets, and clamor loud
That somewhere existed a God behind
Man's foolish forehead in his mind,
And that He was greater and loftier too,
Than the breadth and the depth of the gods he knew.

"The artist scarce noted the words of the throng,—
He let his prentice boy run along,
But he himself continued to file
The stags of Diana without guile,
Hoping that worthily and with grace,
He might succeed to chisel her face.
Should any one hold a different view,
He might in all as he pleases do;
But the craft of the master he must not despise,
For in disgrace he'll end otherwise."

Tr. by P. C.

With reference to this poem Goethe writes to Jacobi (March 10, 1812):

"I am indeed one of the Ephesian artists who spends his whole life in the temple of the goddess, contemplating and wondering and worshiping, and representing her in her mysterious formations. Thus

it is impossible for me to be pleased with an apostle who forces upon his fellow citizens another and indeed a formless god. Accordingly if I published some similar writing (to Jacobi's book *On God*) in praise of the great Artemis, which, however, I will not do because I belong to those who prefer to live quietly and do not care to stir people to mutiny, I should have written on the reverse of the title page, 'No one can become acquainted with what he does not love, and the more perfect our knowledge, the stronger, the more vigorous, and the more vital must be our love, yea, our passion.'"[2]

In the same spirit Goethe writes in his diary of 1812:

"Jacobi's book *On Divine Things* does me no good. How could I welcome the book of a dearly beloved friend in which I found the proposition that 'nature conceals God'? Is it not natural that according to my pure, and deep, and inborn, and expert conception which has taught me unfalteringly to see God in nature and nature in God, so that this conception constitutes the foundation of my entire existence,—is it not natural that such a strange and onesided and limited exposition must alienate me from the noble man whose heart I dearly love? However, I did not indulge my painful disappointment, but sought refuge in my old asylum, making Spinoza's *Ethics* for several weeks my daily entertainment."

Goethe mentions his love of polytheism in his autobiography when speaking of the poem "Prometheus." He says:

"The Titans are the foil of polytheism, as the devil is the foil of monotheism, but neither the devil nor the one-sided God whom the devil opposed are striking figures. Milton's Satan, although he is characterized as sufficiently goody-goody,[3] labors under the disadvantage of subordination when he attempts to destroy the glorious creation of a supreme being. Prometheus, however, possesses the advantage that, in spite of superior beings, he shows himself capable of creating. Moreover, it is a beautiful and poetic thought which provides that men be produced not by the highest ruler of the universe, but by an intermediate character who, however, being a descendant of the oldest dynasty, is worthy of and great enough for the task."

[2] Translated by the author.
A convenient collection of all the passages that have reference to Goethe's world-conception and religion is found in Max Heynacher's book, *Goethe's Philosophie*. For the present quotations see pp. 72-73.

[3] Goethe here uses the word *brav*, and I regret that the *brav genug* is almost untranslatable in English. The word *brav* in German means "good" or "goody" in the sense of Sunday-school morality. A good boy is called *brav*, and the use of this word in its application to Satan is extremely humorous.

Goethe speaks of Satan's "subordination," because in the Christian conception God alone is sovereign, and Satan lacks independence and freedom. He is a mere puppet in the hands of the Almighty, for even his revolt is ultimately the result of God's plan of creation.

Prometheus is not the only rebel whom Goethe admires. He adds further down in the same passage:

"The other heroes of the same kind, Tantalus, Ixion and Sisyphus, also belonged to my saints. Having been received into the society of the gods, they did not show sufficient submissiveness, and as overbearing guests, provoked the wrath of their condescending hosts, whereby they were forced into a dreary exile."

Goethe had to suffer not a little from the narrow spirit of the dogmatic Christians among his contemporaries, and not the least irritations consisted in ill-advised attempts at converting the "great pagan," as he was called by pietists. He smiled at the impudence and folly of those who concerned themselves about his future destiny, for he was confident that the cloven foot of his paganism would not render him unacceptable to God, the Father of all mankind, Jew and Gentile. Here is the fable which Goethe intended as an answer to his Christian friends:

"In the wilderness a holy man
To his surprise met a servant of Pan,
A goat-footed faun, who spoke with grace:
'Lord, pray for me and for my race,
That we in heaven find a place:
We thirst for God's eternal bliss.'
The holy man made answer to this:
'How can I grant thy bold petition,
For thou canst hardly gain admission
In heaven yonder where angels salute:
For lo! thou hast a cloven foot.'
Undaunted the wild man made the plea:
'Why should my foot offensive be?
I've seen great numbers that went straight
With asses' heads through heaven's gate.'"

—*Tr. by P. C.*

Goethe devoted another short poem to the pious ass who in all religions will remain an ass forever. He says:[1]

"If the ass that bore the Saviour
Were to Mecca driven, he
Would not alter, but would be
Still an ass in his behavior."

—*Tr. by Bowring.*

[1] *Hikmet Nameth, Book of Proverbs.*

Goethe was more of a Christian than is generally assumed or might be inferred from his own preference for paganism. To be sure he was not a dogmatic Christian in the sense in which the term Christianity was used in those days. But Goethe would have been rejected also by polytheists and pagans, by Greek as well as Oriental devotees, on account of his latitudinarianism, for he was a sympathizer with all religions and could not be counted exclusively an adherent of any special faith.

How greatly Goethe appreciated Christianity appears from many poems and prose passages of his writings. If we consider that as a matter of principle he never wrote poetry unless he had experienced the sentiment himself, we will understand how devoted he must have been in the days of his youth when he still accepted the Christian miracles and mysteries in unquestioning faith. He outgrew the childlike confidence in the supernatural and lost his belief in miracles, but he remembered the sacredness of his devotion and the hours of pious bliss,—a reminiscence well described in the first scene of his "Faust." When Faust in his despair decides to drink poison, he is interrupted by the Easter message of the angelic choirs and the ringing of the Easter bells, and the sweet recollection of the faith of his youth restores in him the love of life.

What deep sentiment is also expressed in the third scene of "Faust"! He has returned from his walk with Wagner, his famulus, and sits down to find comfort in the Gospel of St. John. The monologue is again and again interrupted by the noise of a poodle, in which shape Mephistopheles approaches him. The diabolic nature of the animal appears in growls by which he expresses his dissatisfaction with Faust's religious sentiments. The passage reads in Bayard Taylor's translation as follows:

(Faust entering with poodle.)

"Behind me, field and meadow sleeping,
I leave in deep, prophetic night,
Within whose dread and holy keeping
The better soul awakes to light.
The wild desires no longer win us,
The deeds of passion cease to chain;
The love of Man revives within us,
The love of God revives again.

"Be still, thou poodle! make not such racket and riot!
Why at the threshold wilt snuffing be?
Behind the stove repose thee in quiet!
My softest cushion I give thee.
As thou, up yonder, with running and leaping

Amused us hast, on the mountain's crest,
So now I take thee into my keeping,
A welcome, but also a silent, guest.

"Ah, when, within our narrow chamber
The lamp with friendly lustre glows,
Flames in the breast each faded ember,
And in the heart, itself that knows.
Then Hope again lends sweet assistance,
And Reason then resumes her speech:
One yearns, the rivers of existence,
The very founts of Life, to reach.

"Snarl not, poodle! To the sound that rises,
The sacred tones that now my soul embrace,
This bestial noise is out of place.
We are used to see, that Man despises
What he never comprehends,
And the Good and the Beautiful vilipends,
Finding them often hard to measure:
Will the dog, like man, snarl *his* displeasure?

"But ah! I feel, though will thereto be stronger,
Contentment flows from out my breast no longer.
Why must the stream so soon run dry and fail us,
And burning thirst again assail us?
Therein I've borne so much probation!
And yet, this want may be supplied us;
We pine and thirst for Revelation,
Which nowhere worthier is, more nobly sent,
Than here, in our New Testament.
I feel impelled, its meaning to determine,—
With honest purpose, once for all,
The hallowed Original
To change to my beloved German.

(He opens a volume and commences.)

"'T is written: 'In the Beginning was the *Word.*'
Here am I balked: who, now, can help afford?
The *Word?*—impossible so high to rate it;
And otherwise must I translate it,
If by the Spirit I am truly taught.
Then thus: 'In the Beginning was the *Thought.*'
This first line let me weigh completely,
Lest my impatient pen proceed too fleetly.
Is it the *Thought* which works, creates, indeed?
'In the Beginning was the *Power,*' I read.
Yet, as I write, a warning is suggested,
That I the sense may not have fairly tested.

The Spirit aids me: now I see the light!
'In the Beginning was the *Act*,'* *I write.*"

In addition to this scene which incorporates Faust's reminiscenses of his former faith, we will quote a few poems and sentences from his rhymed proverbs, which characterize Goethe's Christianity in his mature years. Here is Longfellow's translation of Goethe's two songs, each entitled "The Wanderer's Night Song," of which the second has been most beautifully set to music by Schubert:

"Thou that from the heavens art,
Every pain and sorrow stillest,
And the doubly wretched heart
Doubly with refreshment fillest,
I am weary with contending!
Why this rapture and unrest?
Peace descending
Come, ah, come into my breast!"

"O'er all the hill-tops
Is quiet now,
In all the tree-tops
Hearest thou
Hardly a breath;
The birds are asleep in the trees:
Wait: soon like these
Thou, too, shalt rest."

Under the title "God, Sentiment and the World"[5] Goethe published some rhymes which breathe a simple and almost childlike confidence in God. One of them reads:[6]

"Who on God is grounded,
Has his house well founded."

Another rhyme is translated by Bowring thus:

"This truth may be by all believed!
Whom God deceives, is well deceived."

Goethe was one of the few poets who dared to introduce the Good Lord upon the stage, which he did in the Prologue to "Faust." This remarkable scene reveals before our eyes the heavens where God is enthroned among the angels that appear before him in praise

* Perhaps "Deed" would be a better translation.

[5] *Gott, Gemüth und Welt.*

[6] Bowring's translation,

"Who trusts in God,
Fears not his rod."

is perhaps better English, but does not render the original which reads,

"Wer Gott vertraut,
Ist schon auferbaut."

of his creation. There has scarcely been in Christian literature a more dignified description of God in poetical form, over which even Milton can not claim superiority.

The Lord is greeted by the three archangels in these three stanzas which we quote after Bayard Taylor's translation:

RAPHAEL.

"The sun-orb sings, in emulation,
'Mid brother-spheres, his ancient round:
His path predestined through Creation
He ends with step of thunder-sound.
The angels from his visage splendid
Draw power, whose measure none can say;
The lofty works, uncomprehended,
Are bright as on the primal day.

GABRIEL.

"And swift, and swift beyond conceiving,
The splendor of the world goes round,
Day's Eden-brightness still relieving
Night's darkness awful and profound:
The ocean-tides in foam are breaking,
Against the rocks' deep bases hurled,
And both, the spheric race partaking,
Eternal, swift, are onward whirled!

MICHAEL.

"And rival storms abroad are surging
From sea to land, from land to sea.
A chain of deepest action forging
Round all, in wrathful energy.
There flames a desolation, blazing
Before the Thunder's crashing way:
Yet, Lord, Thy messengers are praising
The gentle movement of Thy Day.

THE THREE.

"Though still by them uncomprehended,
From these the angels draw their power,
And all Thy works are grand and splendid,
As in Creation's primal hour."

MISCELLANEOUS.

BOOK REVIEWS AND NOTES.

SONNETS AND POEMS. By *William Ellery Leonard.* Boston: 1906. For sale by the author at Madison, Wis. Pp. 67. Price, $1.00.

The author who is a philologist of extensive attainments proves in this small volume that he is also a poet. More than half of the verses are in sonnet form many of which are on different aspects of nature and love. The volume is dedicated to the poet's parents in the following sonnet:

"Ye gave me life and will for life to crave:
Desires for mighty suns, or high, or low,
For moons mysterious over cliffs of snow,
For the wild foam upon the midsea wave;
Swift joy in freeman, swift contempt for slave;
Though which would bind and name the stars and know;
Passion that chastened in mine overthrow;
And speech, to justify my life, ye gave.

"Life of my life, this late return of song
I give to you before the close of day;
Life of your life! which everlasting wrong
Shall have no power to baffle or betray,
O father, mother!—for ye watched so long,
Ye loved so long, and I was far away."

One of the miscellaneous poems entitled "The Jester" though in no sense a parody recalls Kipling's "Vampire" in the use of parentheses, and even somewhat in its theme, as witness the stanza:

"For all the year he'd rhyme and dream
(O that's a fool his part),
'My lady's fair as fair may seem
And loves me without art,'—
Until the heart leapt up in him
(A fool may have a heart!)"

But after

"The lady of the land did grieve
For hours twenty-four;
Another fool she did receive
Long ere the next was o'er:

For every lady, I believe,
Must have one fool—or more."

"Heraclitus the Obscure" is based upon the "Fragments," and "Three Fragments of Empedocles" are also translated in verse, and "Creation of the Morrow" is retold from a Sanskrit legend. In general the subjects are so diverse that it would take an enumeration to classify them.

NATURE LYRICS AND OTHER POEMS. By *Martha Martin*. Boston: The Gorham Press, 1907. Pp. 89.

This little book contains many poems of remarkable delicacy of sentiment and expression. Perhaps one of the most original in its imagery is the "Sonnet" with which the volume opens:

"Far down the western slope the weary day
Looks out upon the world with dreamy eyes,
As o'er her sunny curls she loosely ties
Her crimson hood, and gently slips away;
Meanwhile from out the east the twilight grey
Lingers a moment, till the embracing skies
Enfold her—for the solemn Night doth rise,
Descending like a monk in dark array
Of long, black, flowing gown, and piously
He utters prayers in soft, low murmurings;
Then Earth takes up her dewdrop rosary,
And contrite at his feet herself she flings,
While on the altar of blue Heaven high,
Each little star a golden censor swings."

One "Slumber Song" is especially attractive because of the restful effect produced by the cadence of the last line of each stanza:

"Sleep, my darling; sleep my son,
Close thine eyes, my little one,
Nestled at thy mother's breast,
Be at rest, at rest.

"All about us is so still,
And the sun far down the hill,
Blowing out his great, red light,
Call 'good-night, good-night.'

"Cradled on thy mother's arm,
Nought shall come to thee of harm,
Hush my baby, sink to sleep,
Soft and deep, and deep.

"Birds into their nest have flown,
Weary flowers their heads hang down.
Stars shine dimly in the sky,
Rock-a-bye, a-bye.

"Eyelids drooped and cheeks quite flushed,
See my child in dreams now hushed,
Watch o'er him, kind Power above,
With thy love, thy love."

There are a number of translations of stray bits of German verse, and a number of German folktales retold, notably "The Robber Zaun."

A TRAVERS LE FAR-WEST. SOUVENIRS DES ETATS-UNIS. Par *Comte Goblet d'Alviella.* Brussels: Weissenbruch, 1906. Pp. 236.

We Americans are noted among Europeans for our self-satisfied attitude toward our vast country, its institutions, and its people—ourselves. We are apt to feel a little defiant when we pick up a new book in which a guest upon our shores has recorded his fugitive "impressions." If he relates incidents or statistics which are not to our credit we deem it the evidence of ignorance on his part, or at least base ingratitude, while on the other hand if his remarks abound with more or less subtle flattery we accept it complacently as nothing more than our due. It is natural that the element of praise should be at a maximum in such books as are written by foreign travelers in our own tongue or to be translated into it immediately for our especial delectation unless the author should have some definite grudge against which he wishes to retaliate, or should be one of those "frank" people whose joy it is to point out his friends' shortcomings; but those of us who have the sincere desire to "see ourselves as ithers see us," will enjoy the perusal of this book of memories of the United States which Comte d'Alviella, the author of many works along the line of the study of religions, has written for the information of his compatriots. In his introduction he makes some generalizations on the entire country admitting that our large cities, especially in the East, have the disadvantages of European cities without their advantages, that they are practically Europe plus the fever for money and minus the esthetic quality of an Old World metropolis. He thinks that the distinctive characteristics of our country are to be found in the West and has much to say of its grandeur of scenery as well as the manifestations of social equality apparent among the travelers with whom he was thrown in contact. He makes the statement: "I do not think that there is any country where so many things can be seen in so short a time, and (I will add at the risk of surprising many people) with so little expense." He then gives a detailed description of traveling and hotel life here with many sallies at the expense of Pullman discomforts and time-saving customs.

The book itself is mostly occupied with the Rockies and the states lying between the mountains and the Pacific. The author writes in some detail of the Mormons,—their cities, their history and their ceremonials and then proceeds with a description of various parts of California, its agricultural and horticultural development, with a special chapter on the universities of the State introduced by a short record of the history of higher education in America. In an appendix he treats of the religious progress of the United States dealing with the general tendency of the religious movement, the five revivals of religious enthusiasm that have swept the country, the Parliament of Religions, and statistics and history of each of many denominations,

Catholic, Unitarian, Ethical Culturist, the various evangelical faiths, Spiritualists and Theosophists and Christian Scientists.

HILDRETH'S JAPAN AS IT WAS AND IS. Edited with supplementary notes by *Ernest W. Clement.* Introduction by *Wm. Elliot Griffis.* Two volumes, Chicago: McClurg, 1906. Pp. xxxi, 401, 388.

The author of *A Handbook of Modern Japan* has undertaken to edit this "Handbook of Old Japan," whose value as a compilation from all the important European writings of old Japan has been acknowledged. Hildreth's work is of as much importance historically to-day as it was half a century ago when it first appeared, but the value of the early editions is greatly diminished by the old-fashioned modes of transcription, which were then only in the experimental stage. Mr. Clement, therefore, by harmonizing the spelling of Japanese words with the modern system of romanization, and adding some explanatory notes of his own, has given this old authority the appearance and worth of a book of to-day.

MY PILGRIMAGE TO THE WISE MEN OF THE EAST. By *Moncure D. Conway.* Boston: Houghton, Mifflin & Co., 1906. Pages, 416. Price, $3.00 net. Postage, 21 cents.

This collection of Mr. Conway's experiences in Oriental lands was originally intended as a part of his autobiography but it soon extended to sufficiently large proportions to maks a complete book in itself, with an especial unity. In Mr. Conway's charming conversational style the book relates incidents of his travels first westward across our continent, then successively in Australia, Ceylon, Madras, Calcutta, Bengal, Delhi, Bombay and then homeward by way of Europe. Everywhere he came in contact with people interested in religious matters, and his trip around the world only seemed to strengthen his belief in the geographical universailty of truth. In the chapter "Seeking the Beloved" he sums up his opinion in regard to many details of the Christian religion. He thinks that perhaps the most un-Christian thing about the Christianity of to-day is the motive of sacrifice that runs through it all thus bringing gloom where there ought to be sunshine to the minds of men. He says:

"Now let a chorus be heard in the churches,—stop the sacrifice! Cease to immolate one seventh of human time to the Sabbath idol! Unbind those hearts fettered on the marriage altar by chains forged out of antiquated notions of divorce! Stop beating that child with a rod from some ancient proverb, instructing him to beat others smaller than himself! Cease to sacrifice social welfare and justice to a barbaric text enjoining the punishment of a murderer by imitating him! Cease to call love and generosity 'self-sacrifice,' —sweep all these sacrificial savageries out of good hearts and healthy minds, and out of our language, so that the woman may find fair measures of honest meal in which to mingle her leaven of civilization! There is no other hope of a better world!"

THE CHURCHES AND MODERN THOUGHT. An Inquiry Into the Grounds of Unbelief and an Appeal for Candour. By *Philip Vivian.* London: Watts, 1907. Pp. xv, 418. Price, 3s. 6d. net.

The book is a fitting exponent of the position of its publishers, and is a

strong presentation of the humanitarian and rationalistic point of view. The author considers the questions, "What if the majority of men find that Christianity no longer gives them either intellectual satisfaction or moral support? What if they finally arrive at the conclusion that Christianity and all supernatural beliefs are but the survival of primitive superstitions which can no longer bear the light of modern knowledge?" In discussing these questions his endeavor is to set forth the constructive as well as the destructive results of a search for truth. The destructive results may be summed up in the following statements adduced as evidence that "modern knowledge forces us to admit that the Christian faith cannot be true."

"The dismal failure of Christianity after nearly two thousand years' trial; the apparent impossibility of and complete want of evidence for the miracles on which Christianity is founded; the destructive criticism of the Bible, which cannot be gainsaid; the intensely grave suspicions thrown upon the originality of Christianity by the revelations of comparative mythology; the various dilemmas arising from the accepted doctrine of evolution; the inadequacy and conflicting character of the so-called Theistic proofs."

Mr. Vivian then tries to outline an ethical system to replace a code dependent on religious faith, and to consider the question as to whether the unbeliever should keep his views to himself, or whether he should speak out plainly. As he announces his book to be a "plea for candor," his militant position is easily inferred. "Our present course is clearly defined; we should search out and expose all *false* premises of belief. Only in this way can we hope to arrive a little nearer to the ultimate truth."

THE OLD ROOF TREE. Letters of Ishbel to her half-brother Mark Latimer. London: Longmans, Green & Co., 1901. Pp. 271.

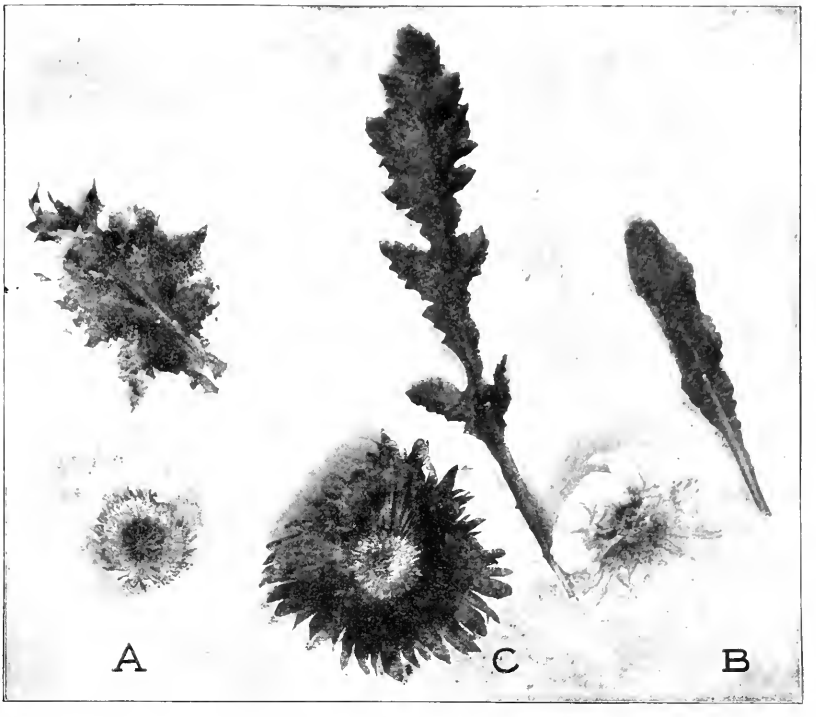
The hope of the anonymous author of these intimate letters is that they may "be ranked with the little lame ant who for a time was thought to be lost, but who arrived at sunset, carrying a small grain of nourishment to add to the common store." She aims to "touch one here and there, to more critical examination of the strange chaos of misery that underlies Britain's social system." But this kernel of thought seems almost hidden in the vast amount of desultory matter that accompanies it.

ERRATUM.

We wish to inform our readers that in the June number of *The Open Court*, the first article, which treated of "The Moral Code of Yukichi Fukuzawa" and included a complete English version of this interesting document of "the Gladstone of Japan," was erroneously ascribed to Joseph Sale. The author is Mr. Joseph Lale of Boston, Mass., and we regret the mischance by which the error was made.

Plant Breeding

Comments on the experiments of BURBANK & NILSSON. By Hugo DeVries, Professor of Botany in the University of Amsterdam. Pages, XIII + 351. 114 Illustrations. Printed on fine enamel paper. Cloth, gilt top, $1.50 net; $1.70 postpaid. (7s. 6d. net.)



Under the influence of the work of Nilsson, Burbank, and others, the principle of selection has, of late, changed its meaning in practice in the same sense in which it is changing its significance in science by the adoption of the theory of an origin of species by means of sudden mutations. The method of slow improvement of agricultural varieties by repeated selection is losing its reliability and is being supplanted by the discovery of the high practical value of the elementary species, which may be isolated by a single choice. The appreciation of this principle will, no doubt, soon change the whole aspect of agricultural plant breeding.

Hybridization is the scientific and arbitrary combination of definite characters. It does not produce new unit-characters; it is only the combination of such that are new. From this point of view the results of Burbank and others wholly agree with the theory of mutation, which is founded on the principle of the unit-characters.

This far-reaching agreement between science and practice is to become a basis for the further development of practical breeding as well as of the doctrine of evolution. To give proof of this assertion is the main aim of these Essays.

The results of Nilsson have been published only in the Swedish language; those of Burbank have not been described by himself. Prof. DeVries's arguments for the theory of mutation have been embodied in a German book, "Die Mutationstheorie" (2 vols. Leipsic, Vat & Co.), and in lectures given at the University of California in the summer of 1904, published under the title of "Species and Varieties; their Origin by Mutation." A short review of them will be found in the first chapter of these Essays.

Some of them have been made use of in the delivering of lectures at the Universities of California and of Chicago during the summer of 1906 and of addresses before various audiences during my visit to the United States on that occasion. In one of them (II. D.), the main contents have been incorporated of a paper read before the American Philosophical Society at their meeting in honor of the bicentennary of the birth of their founder, Benjamin Franklin, April, 1906.

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Their Origin by Mutation

By Hugo de Vries

Professor of Botany in the University of Amsterdam

Edited by Daniel Trembly MacDougal, Director,
Department of Botanical Research, Carnegie Institution of Washington
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Elmer Ellsworth Powell

Professor of Philosophy in Miami University

This book is accurately described on the title page as "a study of Spinoza's metaphysics and of his particular utterances in regard to religion, with a view to determining the significance of his thought for religion and incidentally his personal attitude toward it."

PRESS NOTICES

"Professor Powell has produced an exceedingly able and authoritative book. Few will read it without feeling that it settles for them the question of Spinoza's real attitude to God and to religion. And those who read it will obtain incidentally the benefit of a clear and consistent presentation of the whole philosophic system of one of the most difficult to understand of all the great thinkers of European history."—*The Glasgow Herald.*

"It is a particularly illuminating exposition of the whole subject that is here given by Professor Powell . . . . A book of uncommon intelligence, acumen and carefulness of investigation."—*The Chicago Evening Post.*

"It is an exceedingly attractive presentation of the life and times of Spinoza and of his attitude toward scholarship and truth."—*Journal of Education.*

"Altogether, Professor Powell makes out a good case for the main proposition, and his work is likely to affect current opinion as to the general position of Spinoza, in the course of religious thought. He will have to be counted with by every student of philosophy and religion, and should be specially studied by those who claim that Spinoza is specifically a Jewish philosopher."—*The American Hebrew.*

"Throughout the author demonstrates his familiarity with the field and his liveliness of interest. The style, furthermore, is excellent."—*The Nation.*

Pp. xi +344, Price, cloth $1.50 net (7s. 6d.)

The Open Court Publishing Co.,

1322 Wabash Ave., - - - Chicago Ill., U. S. A.

Aristotle on His Predecessors.

Being the first book of his metaphysics. Translated from the text of Christ, with introduction and notes. By A. E. Taylor, M. A., Fellow of Merton College, Oxford; Frothingham Professor of Philosophy in McGill University, Montreal. Pp. 160. Cloth, 75c net. Paper, 35c postpaid.

This book will be welcome to all teachers of philosophy, for it is a translation made by a competent hand of the most important essay on the history of Greek thought down to Aristotle, written by Aristotle himself. The original served this great master with his unprecedented encyclopedic knowledge as an introduction to his Metaphysics; but it is quite apart from the rest of that work, forming an independent essay in itself, and will remain forever the main source of our information on the predecessors of Aristotle. Considering the importance of the book, it is strange that no translation of it appears to have been made since the publication of that by Bekker in 1831.

The present translation has been made from the latest and most critical Greek text available, the second edition of W. Christ, and pains have been taken not only to reproduce it in readable English, but also to indicate the exact way in which the translator understands every word and clause of the Greek. He has further noted all the important divergencies between the readings of Christ's text and the editions of Zellar and Bonitz, the two chief modern German exponents of Aristotelianism.

Not the least advantage of the present translation is the incorporation of the translator's own work and thought. He has done his best, within the limited space he has allowed himself for explanations, to provide the student with ample means of judging for himself in the light of the most recent researches in Greek philosophical literature, the value of Aristotle's account of previous thought as a piece of historical criticism.

Zarathushtra, Philo, the Achaemenids and Israel.

A Treatise Upon the Antiquity and Influence of the Avesta. By Dr. Lawrence H. Mills, Professor of Zend Philology in the University of Oxford. 1906. Pp. 460. Cloth, gilt top. $4.00 net.

Professor Lawrence H. Mills, the great Zendavesta scholar of Oxford, England, has devoted his special attention to an investigation and comparison of the relations that obtain between our own religion, Christianity—including its sources in the Old Testament scriptures—and the Zendavesta, offering the results of his labors in a new book that is now being published by The Open Court Publishing Company, under the title, "Zarathushtra, Philo, the Achaemenids and Israel, a Treatise upon the Antiquity and Influence of the Avesta." We need scarcely add that this subject is of vital importance in theology, for the influence of Persia on Israel and also on the foundation of the Christian faith has been paramount, and a proper knowledge of its significance is indispensable for a comprehension of the origin of our faith.

Babel and Bible.

Three Lectures on the Significance of Assyriological Research for Religion, Embodying the most important Criticisms and the Author's Replies. By Dr. Friedrich Delitzsch, Professor of Assyriology in the University of Berlin. Translated from the German. Profusely illustrated. 1906. Pp. xv, 240. $1.00 net.

A new edition of "Babel and Bible," comprising the first, second and third lectures by Dr. Friedrich Delitzsch, complete with discussions and the author's replies, has been published by The Open Court Publishing Company, making a stately volume of 255 pages.

On Life After Death

By Gustav Theodor Fechner. Translated by Dr. Hugo Wernekke, Head Master of the Realgymnasium at Weimar, 1906. Pp. 133. Cloth, gilt top. 12 mo. 75c net. Postage 8c. (3s. 6d.)

"I wish to congratulate you and the translator upon the beautiful translation of Fechner. It did not seem possible that such a translation, breathing as it did the entire spirit of the original, could have been made by a German. I have seldom seen a more successful bit of translating."—*David Eugene Smith, Ph. D., LL. D., Professor of Mathematics, Teachers' College, New York City.*

"The essay of which this little book is a translation was first published in German in 1835. Its author held that 'the spirits of the dead continue to exist as individuals in the living,' and has worked out this idea in quaint suggestions and meditations which will interest many and perhaps will add somewhat of illumination to their eager gaze into the world beyond death. It is devout, hopeful and confident of a kind of a personal immortality."—*The Congregationalist and Christian World.*

The Crown of Thorns

A Story of the Time of Christ. By Dr. Paul Carus. Illustrations by Eduard Biedermann. Pp. 73. Cloth, 75c net. (3s. 6d. net.)

"The Crown of Thorns" is a story of the time of Christ. It is fiction of the character of legend, utilizing materials preserved in both the canonical scriptures and the Apocryphal traditions, but giving preference to the former. The hopes and beliefs of the main personalities, however, can throughout be verified by documentary evidence. The religious milieu is strictly historical, and is designed to show the way in which Christianity developed from Judaism through the Messianic hopes of the Nazarenes as interpreted by the Apostle Paul of Tarsus.

Space and Geometry in the Light of Physiological, Psychological and Physical Inquiry.

By Dr. Ernst Mach, Emeritus Professor in the University of Vienna. From the German by Thomas J. McCormack, Principal of the LaSalle-Peru Township High School. 1906. Cloth, gilt top. Pp. 143. $1.00 net. (5s. net.)

In these essays Professor Mach discusses the questions of the nature, origin, and development of our concepts of space from the three points of view of the physiology and psychology of the senses, history, and physics, in all which departments his profound researches have gained for him an authoritative and commanding position. While in most works on the foundations of geometry one point of view only is emphasized—be it that of logic, epistemology, psychology, history, or the formal technology of the science—here light is shed upon the subject from all points of view combined, and the different sources from which the many divergent forms that the science of space has historically assumed, are thus shown forth with a distinctness and precision that in suggestiveness at least leave little to be desired.

Any reader who possesses a slight knowledge of mathematics may derive from these essays a very adequate idea of the abstruse yet important researches of metageometry.

The Vocation of Man.

By Johann Gottlieb Fichte. Translated by William Smith, LL. D. Reprint Edition. With biographical introduction by E. Ritchie, Ph. D. 1906. Pp. 185. Cloth, 75c net. Paper, 25c; mailed, 31c. (1s. 6d.)

Everyone familiar with the history of German Philosophy recognizes the importance of Fichte's position in its development. His idealism was the best exposition of the logical outcome of Kant's system in one of its principal aspects, while it was also the natural precurs r of Hegel's philosophy. But the intrinsic value of Fichte's writings have too often been overlooked. His lofty ethical tone, the keenness of his mental vision and the purity of his style render his works a stimulus and a source of satisfaction to every intelligent reader. Of all his many books, that best adapted to excite an interest in his philosophic thought is the Vocation of Man, which contains many of his most fruitful ideas and is an excellent example of the spirit and method of his teaching.

The Rise of Man.

A Sketch of the Origin of the Human Race. By Paul Carus. Illustrated. 1906. Pp. 100. Boards, cloth back, 75c net. (3s. 6d. net.)

Paul Carus, the author of The Rise of Man, a new book along anthropological lines, upholds the divinity of man from the standpoint of evolution. He discusses the anthropoid apes, the relics of primitive man, especially the Neanderthal man and the ape man of DuBois, and concludes with a protest against Huxley, claiming that man has risen to a higher level not by cunning and ferocity, but on the contrary by virtue of his nobler qualities.

THE OPEN COURT PUBLISHING CO., 1322 Wabash Ave., Chicago

The Sermons of a Buddhist Abbot. Some Addresses on Religious Subjects by the Rt. Rev. Soyen Shaku, Abbot of Engakuji and Kenchoji, Kamakura, Japan. Translated by Daisetz Teitaro Suzuki. Pp. 218. Cloth. $1.00 net. (4s. 6d. net.)

The Sermons of a Buddhist Abbot, which were delivered by the Rt. Rev. Soyen Shaku, during the author's visit to this country in 1905-1906, and have been collected and translated and edited by his interpreter and friend, Mr. Daisetz Teitaro Suzuki,

will prove fascinating to those who are interested in the comparative study of religion as well as in the development of Eastern Asia. Here we have a Buddhist Abbot holding a high position in one of the most orthodox sects of Japan, discoursing on problems of ethics and philosophy with an intelligence and grasp of the subject which would be rare even in a Christian prelate.

The Praise of Hypocrisy. An Essay in Casuistry. By G. T. Knight, D. D., Professor of Christian Theology in Tufts College Divinity School. 1906. Pp. 86. 50c net.

"The Praise of Hypocrisy" is an essay based on the public confessions of hypocrisy that many champions of religion have made in these days, and on the defenses they have put forth in support of the practice of deceit. Not that the sects now accuse each other of insincerity, nor that the scoffer vents his disgust for all religion, but that good men (as all must regard them) in high standing as church members have accused themselves.

By exhibiting the implications and tendencies of the ethics thus professed and defended, and by sharp comment on the same, the author of this essay designs to arouse the conscience of the church, to sting it into activity in a region of life where its proper functions have ceased.

This is not an attack on the church, nor even a mere criticism; it is the language of righteous indignation hopefully summoning the church to be honest with itself, to be loyal and faithful to its master.

Essay on the Creative Imagination. By Prof. Th. Ribot. Translated from the French by A. H. N. Baron, Fellow in Clark University. 1906. Cloth, gilt top. Pp. 357. $1.75 net. (7s. 6d. net.)

Imagination is not the possession only of the inspired few, but is a function of the mind common to all men in some degree; and mankind has displayed as much imagination in practical life as in its more emotional phases—in mechanical, military, industrial, and commercial inventions, in religious, and political institutions as well as in the sculpture, painting, poetry and song. This is the central thought in the new book of Th. Ribot, the well-known psychologist, modestly entitled An Essay on the Creative Imagination.

It is a classical exposition of a branch of psychology which has often been discussed, but perhaps never before in a thoroughly scientific manner. Although the purely reproductive imagination has been studied with considerable enthusiasm from time to time, the creative or constructive variety has been generally neglected and is popularly supposed to be confined within the limits of esthetic creation.

Our Children. Hints from Practical Experience for Parents and Teachers. By Paul Carus. Pp. 207. $1.00 net. (4s. 6d. net.)

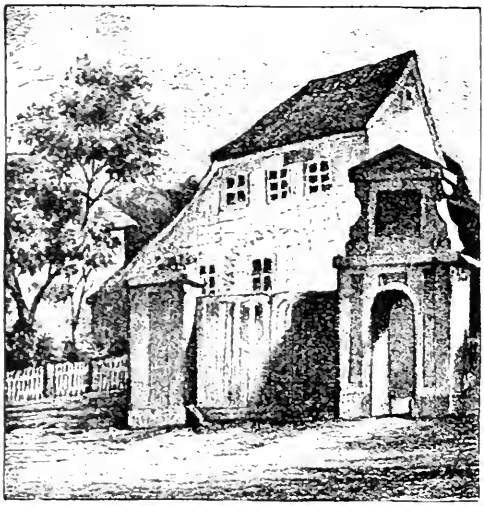
In the little book Our Children, Paul Carus offers a unique contribution to pedagogical literature. Without any theoretical pretensions it is a strong defense for the rights of the child, dealing with the responsibilities of parenthood, and with the first inculcation of fundamental ethics in the child mind and the true principles of correction and guidance. Each detail is forcefully illustrated by informal incidents from the author's experience with his own children, and his suggestions will prove of the greatest possible value to young mothers and kindergartners. Hints as to the first acquaintance with all branches of knowledge are touched upon—mathematics, natural sciences, foreign languages, etc.—and practical wisdom in regard to the treatment of money, hygiene, and similar problems.

Yin Chih Wen, The Tract of the Quiet Way. With Extracts from the Chinese commentary. Translated by Teitaro Suzuki and Dr. Paul Carus. 1906. Pp. 48. 25c net.

This is a collection of moral injunctions which, among the Chinese is second perhaps only to the Kan-Ying P'ien in popularity, and yet so far as is known to the publishers this is the first translation that has been made into any Occidental language. It is now issued as a companion to the T'ai-Shang Kan-Ying P'ien, although it does not contain either a facsimile of the text or its verbatim translation. The original consists of the short tract itself which is here presented, of glosses added by commentators, which form a larger part of the book, and finally a number of stories similar to those appended to the Kan-Ying P'ien, which last, however, it has not seemed worth while to include in this version. The translator's notes are of value in justifying certain readings and explaining allusions, and the book is provided with an index. The frontispiece, an artistic outline drawing by Shen Chin-Ching, represents Wen Ch'ang, one of the highest divinities of China, revealing himself to the author of the tract.

The motive of the tract is that of practical morality. The maxims give definite instructions in regard to details of man's relation to society, besides more general commands of universal ethical significance, such as "Live in concord," "Forgive malice," and "Do not assert with your mouth what your heart denies."

Friedrich Schiller



A Sketch of His Life and an Appreciation of His Poetry. By Dr. Paul Carus. Profusely illustrated. 1905. Pp. 102, octavo. Boards, cloth back, illustrated cover, 75c net. (3s. 6d.)

"This adequately illustrated and tastefully bound volume by Mr. Paul Carus is an admirable memorial of the recent Schiller Centenary. In addition to a biographical sketch we have two thoughtful essays by Dr. Carus on Schiller as a philosophical poet and on Schiller's poetry. Both have well-chosen selections of considerable extent, and it was a good idea to present these illustrative excerpts in both German and English."—*The Outlook.*

Eros and Psyche

A Fairy Tale of Ancient Greece.

Retold After Apuleius. By Dr. Paul Carus. Half-tone reproductions, with ornamental borders, of the famous illustrations of Paul Thumann. Printed from pica type on Strathmore deckle-edge paper, elegantly bound, and with classic cover design by E. Biedermann. One of the quaintest stories of the world's folklore. Pp. xv, 108. Souvenir edition with 41 beautiful pen-and ink drawings and eleven half-tone plates. Strathmore paper, gilt top. $1.50 net. (6s. net.)

THE OPEN COURT PUBLISHING CO., 1322 Wabash Ave., Chicago

The Story of Samson

And Its Place in the Religious Development of Mankind.

By Paul Carus. 80 illustrations. Pp. 183. Comprehensive index. Boards, $1.00 net. (4s. 6d. net.)

Dr. Carus contends that Samson's prototype is to be found in those traditions of all primitive historical peoples which relate to a solar deity. He believes that genuine tradition, no matter how mythological, is more conservative than is at first apparent. Though the biblical account of Samson's deeds, like the twelve labors of Heracles, is the echo of an ancient solar epic which glorifies the deeds of Shamash in his migration through the twelve signs of the zodiac, there may have been a Hebrew hero whose deeds reminded the Israelites of Shamash, and so his adventures were told with modifications which naturally made the solar legends cluster about his personality.

References are fully given, authorities quoted and comparisons are carefully drawn between Samson on the one hand, and Heracles, Shamash, Melkarth and Siegfried on the other. The appendix contains a controversy between Mr. Geo. W. Shaw and the author in which is discussed at some length the relation between myth and history.

Chinese Thought

An Exposition of the Main Characteristic Features of the Chinese World-Conception. By Paul Carus. Being a continuation of the author's essay, Chinese Philosophy. Illustrated. Index. Pp. 195. $1.00 net. (4s. 6d.)

This book contains much that is of very great interest in the development of Chinese culture. Beginning in the first chapter with a study of the earliest modes of thought-communication among primitive people of different parts of the world, and tracing the growth of the present system of Chinese caligraphy. In "Chinese Occultism" some interesting Oriental mystical ideas are explained as well as the popular methods of divination by means of trigrams and the geomancer's compass. In a special chapter the zodiacs of different nations are compared with reference to the Chinese zodiac and also to a possible common Babylonian origin. This chapter contains many rare and valuable illustrations representing almost all known zodiacs from those of Egypt to the natives of the Western hemisphere. The influence of Confucius is discussed, and a hurried recapitulation of the most important points in Chinese history is given together with a review of the long novel which stands in the place of a national epic. Chinese characteristics and social conditions have their place in this volume as well as the part played in China by Christian missions, and the introduction of Western commercialism. The author's object is to furnish the necessary material for a psychological appreciation of the Chinese by sketching the main characteristic features of the ideas which dominate Chinese thought and inspire Chinese morality, hoping thereby to contribute a little toward the realization of peace and good will upon earth.

Chinese Life and Customs

By Paul Carus. With illustrations by Chinese artists. Pp. 114. 75c. net. (3s. 6d. net.)

This book is little more than a compilation of Chinese illustrations accompanied with only as much text as will suffice to explain them, and what further material has been added is merely in the way of quotations from Chinese literature. The intention is to make the Chinese people characterize themselves by word and picture. Child rhymes, love lyrics and songs of revelry are introduced in translation from Chinese poetry which is recognized as classical. The illustrations which form the great body of the book are from the most authentic Chinese source of information concerning modern life in China unaffected by the aggressive Occidental foreigners. The book is divided into chapters on "Annual Festivals," "Industries and Foreign Relations," "Confucianism and Ancestor Worship," "Taoism and Buddhism," "Childhood and Education," "Betrothal and Marriage," "Social Customs and Travels," "Sickness and Death."