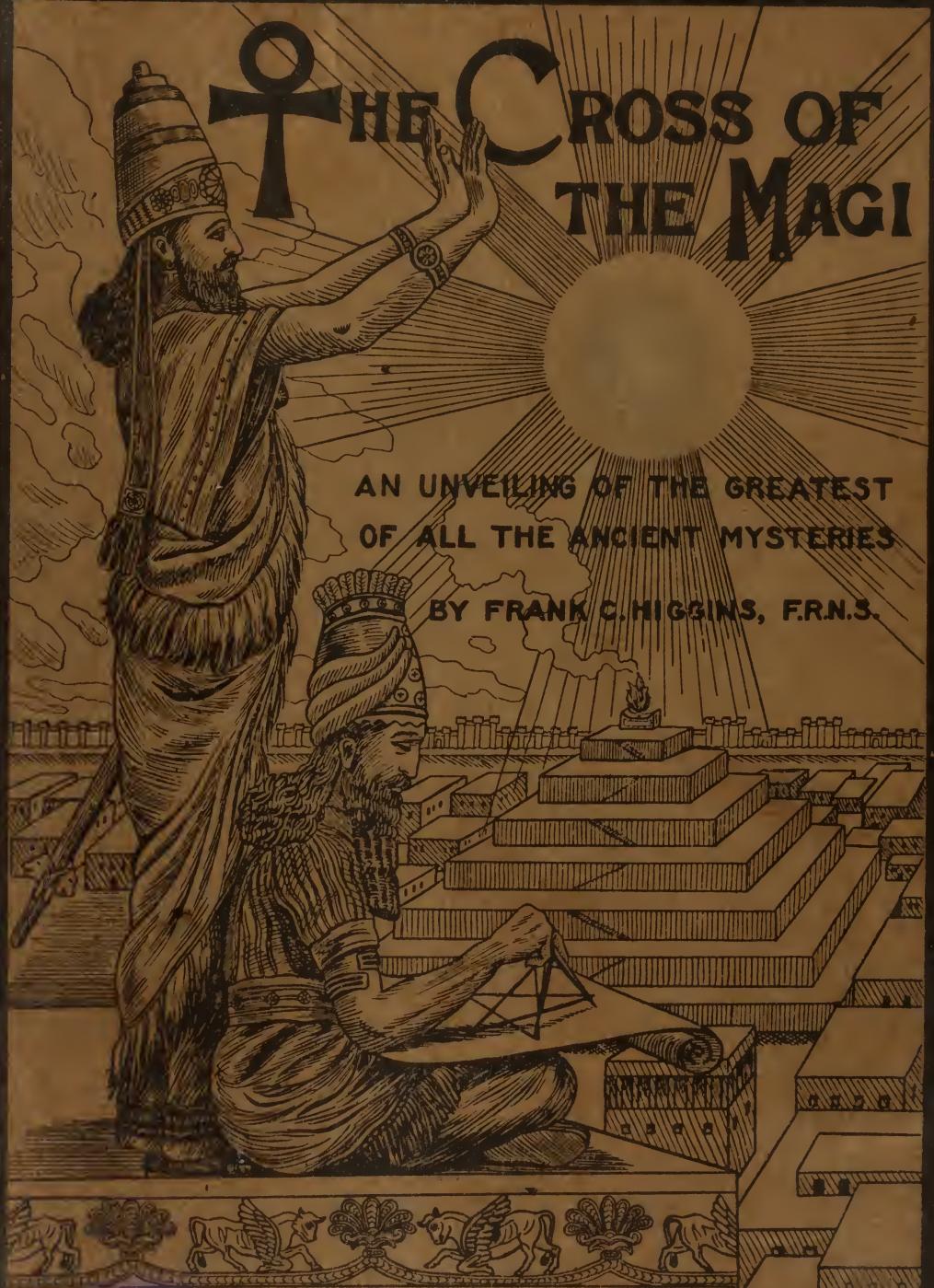




THE CROSS OF THE MAGI

AN UNVEILING OF THE GREATEST
OF ALL THE ANCIENT MYSTERIES
BY FRANK C. HIGGINS, F.R.N.S.

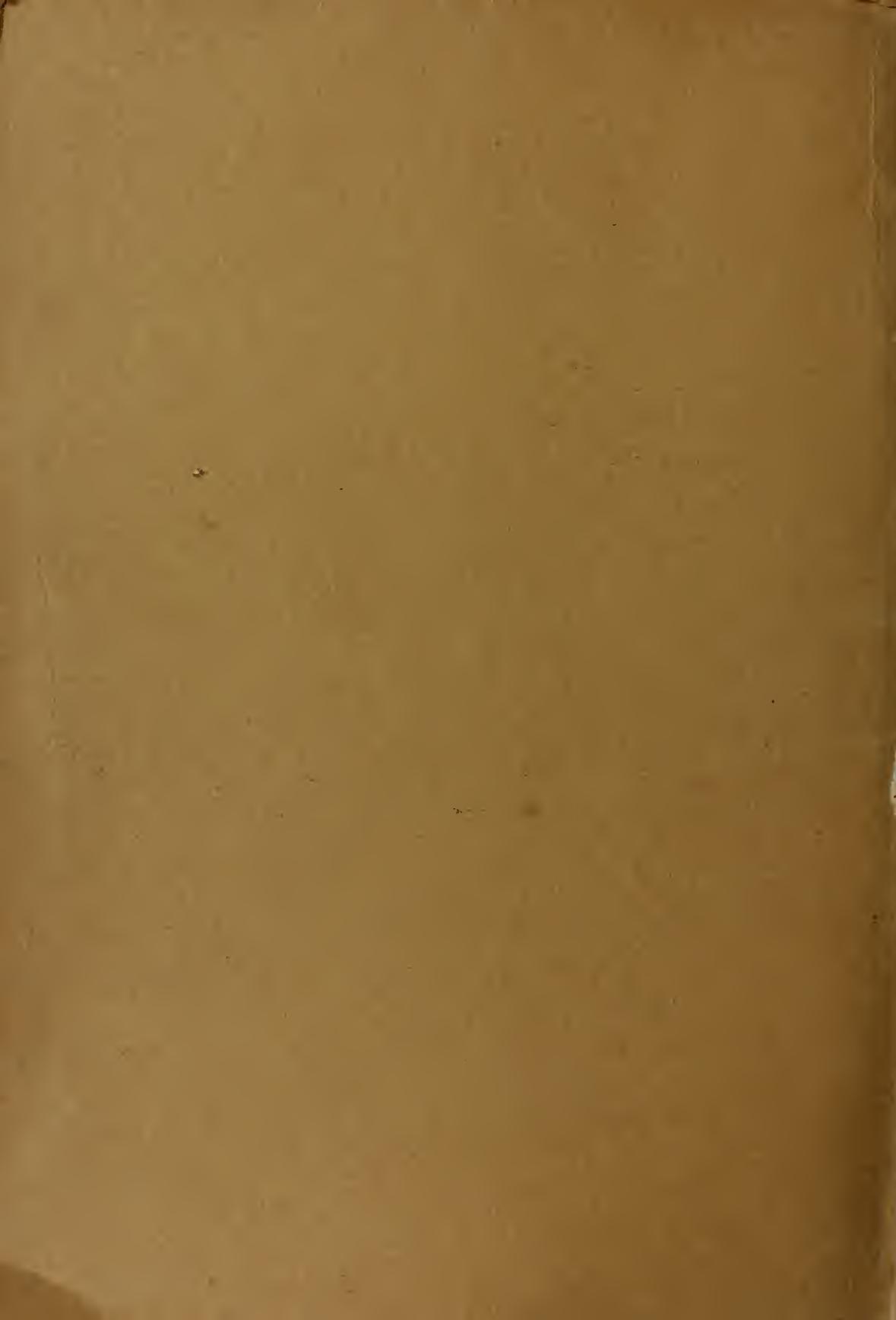


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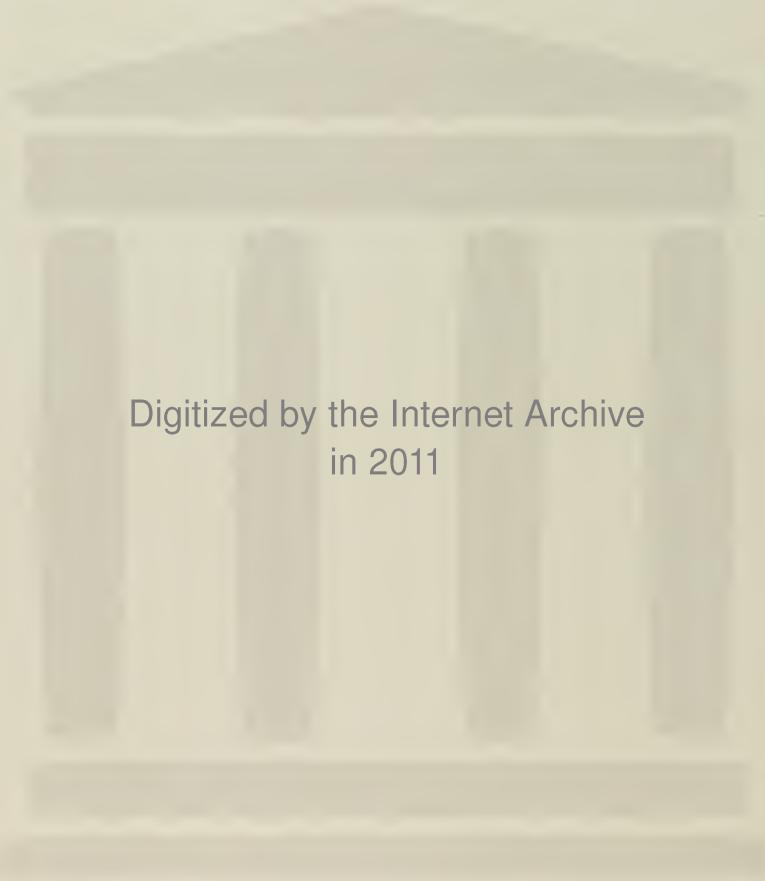


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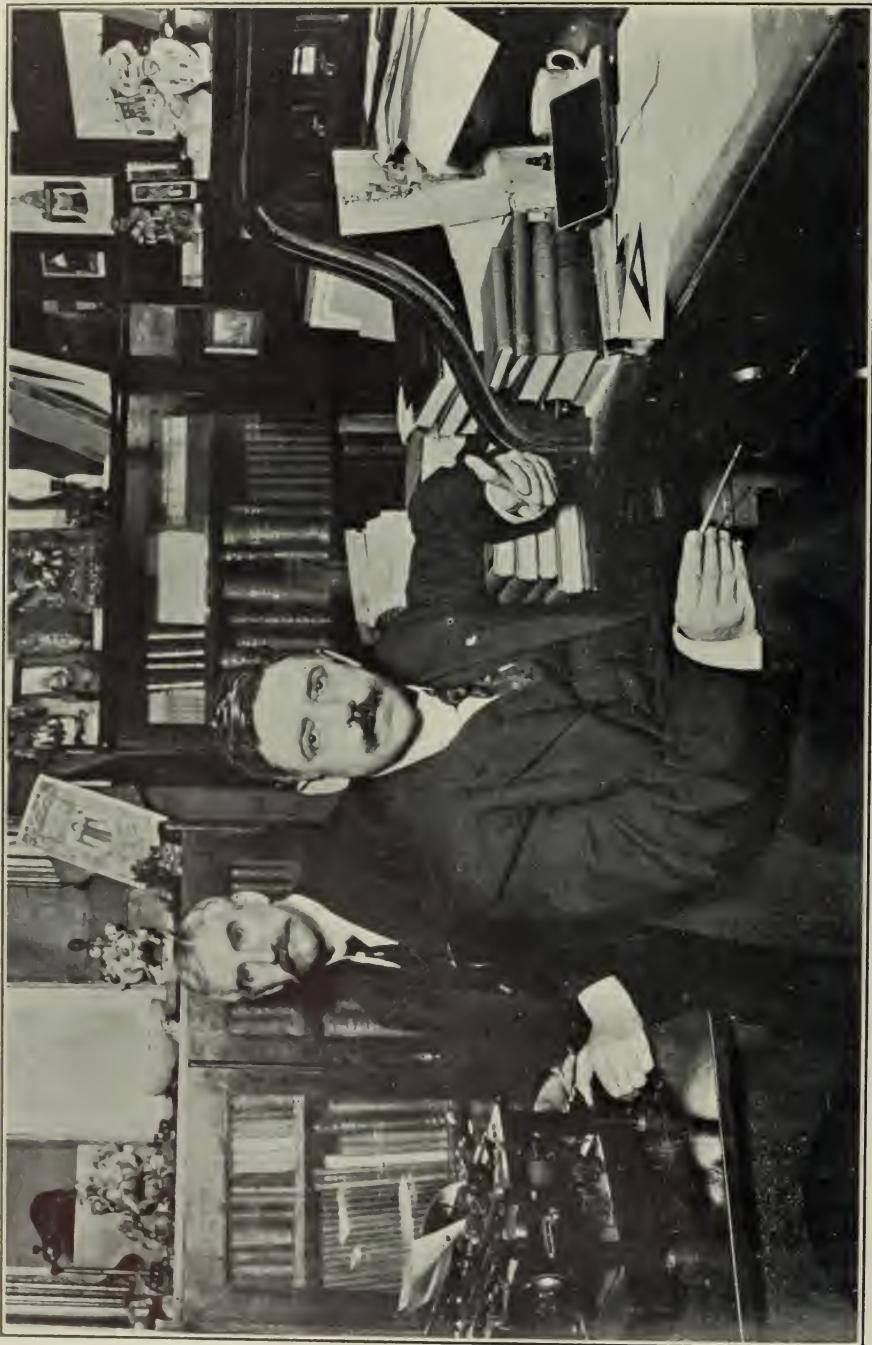
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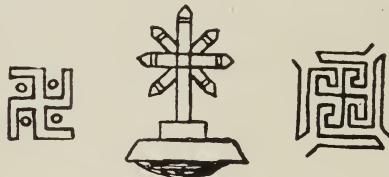
THE CROSS OF THE MAGI

AN UNVEILING OF THE GREATEST
OF ALL THE ANCIENT MYSTERIES

BY

FRANK C. HIGGINS, F. R. N. S.

AUTHOR OF COPPER COINS OF MODERN EUROPE,
THE CHINESE NUMISMATIC RIDDLE, ETC., ETC.



IT IS IN OR THROUGH SYMBOLS THAT MAN, CONSCIOUSLY OR UNCONSCIOUSLY,
LIVES, WORKS AND HAS HIS BEING.
HIGHEST OF ALL SYMBOLS ARE THOSE WHEREIN THE ARTIST OR POET HAS RISEN
INTO PROPHET AND ALL MEN CAN RECOGNIZE A PRESENT GOD AND WORSHIP
THE SAME.

CARLISLE—*Sartor Resartus.*

ROGER BROTHERS
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1912

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ENT, STA. HALL

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TO MY FRIENDS.

The "Cross of the Magi" is cordially and gratefully dedicated to my esteemed colleagues of the New York Numismatic Club, through whose appreciative moral support I have been encouraged to persist in a line of research which throws, I am quite sure, an altogether new light on many obscure numismatic problems.

I also wish to acknowledge the generous and sympathetic co-operation of Brother Franklin B. Huntington, 32° and Knight Templar, and of Edward T. Newell, Esq., in my efforts to place the fruits of my researches, in fitting dress, before the public.

THE AUTHOR.





P R E F A C E .

To those who are moved to regard the materials of which this little book has been constructed rather commonplace when compared with the importance attributed to them, let us say that the greatest mystery of life lies in the manner with which it envelops, surrounds and permeates us with its unceasing miracles without so much as attracting attention unless we are in the mood to philosophize.

The ancient world, in seeking the ultimate cause of being, sought neither riddles nor enigmas, but **the truth**.

It realized that the “infinite”, as an abstract proposition, must embrace both the great and the small within one all sufficing law. The **macrocosmos** was shown mathematically to be reflected in the **microcosmos** as the yellow orange is the humble image of earth or sun and so mankind felt the divine impulsion to “seek and find”.

The philosophies of number and proportion are those which lie the closest to human perception through the medium of the senses.

They constitute, at least, the gateways of reason and we hope to retrace in a sense the footsteps of humanity which have followed the path from darkness to light impelled by the greatest of God’s gifts, the desire of wisdom, and lighted by the glory of His universe, the manifest correlation and vivid symbolism of every atom of Creation.

It is neither our imagination or invention that these fundamental truths were perceived, grasped and their lessons applied by races long vanished.

They foresaw, as we foresee in turn, that a time comes when all which remains of the thought and sentiment of a generation is that which it is able to indite, paint or engrave upon material capable of withstanding the ravages of time far beyond the duration of individual human existence.

Evading with infinite tact and patience, premature revelation to the profane of their own and later days on the one hand and on the other, the danger that symbolic interpretation of the divine premeditation revealed in nature might be lost in its very trueness to the original pattern and thus pass for mere artistic imitation without its metaphysical intention being perceived, the ancient world contrived the graphic symbol.

Our sole preoccupation is to confront the symbolisms of the past with the material facts in which they had their rise and their manifold expressions in every time and clime prior to our own materialistic age in order that they may be permitted once more to teach their own lessons in the manner intended by their transmitters.

FRANK C. HIGGINS.

New York, June 15th, 1912.

INTRODUCTION.

To whatsoever ancient system of philosophy we turn, irrespective of its age or the geographical boundaries of its influence, we find such of its axioms and elucidations as have been preserved to us, accompanied by the tradition of a lost **arcana**, or inner secret, for which so much potency is claimed, that its transmission is generally ascribed to the simple credulity of past ages and its existence dismissed as a meaningless myth.

The serious student of the lore of by-gone ages is not, however, so sure that the repeated indications which he discovers on every side, of at least the assumption of hidden knowledge, is not based upon a foundation of fact.

The delver into archaeology, is confronted with strange symbolisms, which, while there is always some one to hazard a guess at their meaning, leave him utterly bewildered.

The scholar, saturated with Oriental classics, the Hellenic philosophies and the mysteries of the ancient religious arts, is convinced of their interest, but left as unsatisfied upon the threshold of the inner shrine, as though his knowledge mocked him. Modern mystics amuse themselves and each other, with fragments of age-old wisdom, which have reached us, each interpreting, after a fashion of his own, the odds and ends of folklore, which pass for authentic history.

For these reasons, a recapitulation of all which speculative writers have penned upon the subject, would be pure loss of time in the present connection although they will always retain the highest interest for the student.

A stupendous tissue of guess-work, is laden upon the book-shelves of the world.

The sacred **Yih King** of the Chinese, is an almost meaningless jargon, because of the loss of a mysterious "Tablet of Destiny", which is the key to its inner meanings; but which no human eye, within the memory of history, has seen.

The "Divine Tablet", which the Sumerian monarch, Emme-duranki, "received from the hands of the Babylonian trinity, Anu, Bel and Hea", is but an historical hint, like the "Tables of Judgement", of the latter people and the **Urim** and **Thummim**, of the Jew.

Sabaism, the ancient religious cult, which gave rise to both scientific astronomy and the reputed sister science of astrology, is only recollected by history as a vulgar "Star Worship". Magianism, which led the shepherd three to the feet of the Babe of Bethlehem, has no better explanation. For high upon two thousand years, the final word of human salvation has been claimed to be settled for all time upon the tradition that these people performed certain extraordinary actions, because they were convinced that "a King was born unto the Jews, for they had seen HIS Star in the East."

Yet not one step has been made by historians, in the direction of accurate knowledge of events, which are deemed true enough to base the whole Christian theory of human relation to the Creator of the Universe upon them.

The answer of the believer, that the statements of Holy Writ do not require confirmation, is the fountain head of Atheism; while the denial of the Atheist, is as unsatisfying to himself, as to the most devout Churchman.

The legendary traditions, the authentic historical records, the tangible, visible, monuments and archaeological remains of all peoples, of all times and places, are there to attest the one time comprehension of **something**, which was in itself a concealment from the vulgar eye, of a secret, the possession of which perished at a distant date.

Modern science has, however, been long keenly upon the scent of the truth and when that truth is fully realized, the world will look with amazement upon the innumerable near approaches, which have been made to a solution of the greatest of all the mundane mysteries.

The approaches in question, have mainly consisted of the great masses of evidence, built up by students of comparative religion, archaeology, anthropology and ethnology, that the entire human race is bound together by a common heritage of tradition and symbolism, weak but manifest among savage races, strong and abounding in circumstances, wherever the hand of civilized man has stamped his seal.

Specialization, while it has endowed the world with master-pieces of successful research, has, however, retarded the re-discovery of the greatest of the mysteries, because the latter, the product of a period when the now scattered elements of humanity must have been knit closer together, has also had its primitive elements so dispersed, that no modern scholar of the

specializing school, has broadened his range of vision, so as to embrace them all and, recognizing the analogies, bring them together.

The success of the writer in this direction, should have been that of an infinitely more learned scholar, but the generalization, which the latter might have disdained, has been essential to achievement.

A little knowledge of the whole world, has done more to produce the particular result, than the most profound special acquaintance of one, or even two, or three, ancient civilizations, would have aided to accomplish.

The labor of unravelling the great puzzle of antiquity, has occupied a quarter of a century, in the acquirement of the necessary appreciation, through Numismatic study and world travel and over a year of special research, verification and meditation, after the first conception had taken root.

The acquirement of the central **arcanum**, simple as it may appear, in its perfected condition, required the combination and systematic grouping of ideas, derived from, First: Pythagorean arithmetical philosophy; Second: European astronomy; Third: ancient Mexican mythology; Fourth: Chinese cosmogony.

With all this seeming complication and impossibility of securing a result, until these widely diversified fields of research had been reviewed in turn, without at first, the slightest idea of what would result therefrom, the completed fabric takes shape and substance, with the simplicity and beauty of God's nature, of which it is the eternal type.

We are compelled to accept the testimony of the ancient symbolisms to two very important theses, especially where they attest origin from geometrical formulae, the comprehension, let alone development of which, is out of range of the ordinary, normal mind concerned with the materialities of every day life.

One is that such manifest subtleties of calculation could not have been the work of other than men of great mental capacity and highly developed reasoning powers, living at periods immeasurably remote from those in which we begin to find historical traces of recognized schools of philosophy or of individual Philosophers.

The other is that the geometrical figures selected by the hierarchies of ancient religions to graphically portray conceptions of spiritual truths bear witness to the fact that those who first put them into circulation were profound thinkers along:

theosophical lines which, having never lost their interest or meaning to humanity, are still the basis of all the world can glean of the supernatural.

This being established compels us to recognize the existence, at times farther back than those of which history can give us any account, of a humanity no less mentally keen than that with which we are contemporary and to look for the origines of symbolism in something else than the fetishism of the savage or the superstitions of the uncultured and barbarous.

We find, for instance, the Swastika still employed as an amulet by the red Indians of the American plains and the homeless nomads of northern Asia after having passed in review much evidence of its veneration by all the peoples of antiquity. So long as the nature of symbols was but imperfectly known we have been entirely justified in assuming that it was merely an attractive arbitrary figure to which any age or race might attribute its own significance, but the moment we are confronted with scientific evidence that it is the correct geometrical solution to an intricate problem of Eternal Wisdom, we are compelled to recognize the mental parity of its originators with ourselves.

THE GREAT SOLAR MYTH.

"Behind all the religions of the world", wrote Ignatius Donnelly, "lies a great Solar Myth."

The great Solar Myth, need be a "myth" no longer, for it only became such, through the loss to the world of one of the most beautiful, inspiring and intellectual contemplations, which human thought has ever grasped.

Prepared to prove it, let us say at once that the great Solar Myth, man's earliest expansion of heart and soul, lifted in grateful exaltation to his maker, has from its earliest and most primitive conception, persisted, evolved, developed and manifested down to our own age and day. When we thoroughly understand what it is and of what it consists, we shall be astounded to realize the treasure of purposeful meaning, which has been lying within it, behind the veil of man's mis-conception and mis-understanding, these ages past. The well-spring and fountain of every system of religion the world has ever known, from the most primitive cult of barbarism to the most cultured Christianity, the Solar Myth has passed through every philosophical transformation, which the human mind has been capable of giving it, yet it remains, in its essence, essentially the same as in the beginning, which was not in the ignorance of the savage, but in the intellectual power to grasp eternal truth, of the fully developed, highly illuminated mind and that at a period so remote, that he may only approximately realize it, who is able to conceive of a time, when the scattered family of earth, were as closely allied in thought, as at the present day, even if in order to seize upon the idea, we must credit the notion of a one time great dispersion, from some central home of humanity.

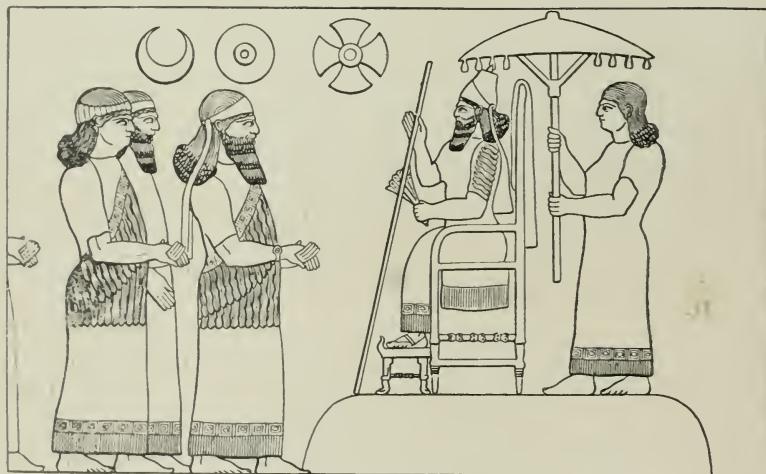
Granted the wonderful phenomena of physical nature and the splendour of the celestial panorama, the Solar Myth—a "myth" only to those who have lost all of its original sense—was far more than a blind adoration of the Solar disc—in the sense of a huge, glittering, barbarian fetish, miraculously poised in a marvellous firmament.

The primitive races of mankind, viewed the orb of day, under aspects which have been completely lost sight of for cen-

turies; but which, nevertheless, may well surprise us by the profundity of their wisdom and the divinity of their purpose, when we realize that such contemplation was the parent of our every art, science, philosophical speculation and religious conception of to-day.

The so-called "Solar Myth", took cognisance, not only of the "King of Day", but of the "Queen of Night" and her sidereal retinue—terms far older than most of us suspect.

We can well conceive of a time, when both the Sun and the Moon, may have been blindly worshipped by the unenlightened, but, in the rapt confidence of humanity in their ever visible divine ruler and his consort, the phenomena to which their appreciable natures and movements gave rise, were duly compared with what could be gathered from terrestrial experiences, and that with most astonishing results.



Ancient Babylonians engaged in ceremonies relating to the Magian worship of the heavenly bodies. The Cross is a geometrical Messianic Symbol and the crossed hands of the assemblage are in token of adoration of the Sun, Moon and Zodiac.—(From contemporary sculptures.)

The precise individual applications of the great Solar Myth, by the ancients, are, of course, matters of great detail, but when the theories upon which they labored are correctly comprehended, the mass of controversial mis-understandings between both historians and theologians, which is cleared away, is beyond simultaneous grasp.

The system should rather, perhaps, be termed Soli-Lunar, for it will be found, as we proceed, that the dwellers of the an-

cient world regarded the Moon as far more intimately associated with the earth than the Sun, in connection with certain phases of their philosophy of creation.

The Sun, they certainly viewed as father and visible presence of the supreme creator, fructifier of earth, regulator of the Seasons and diurnal time; but they also recognized in the Sun, a masculine independance and periodical wandering, from the immediate vicinity of earth, while, on the contrary, the Moon supplied more the attributes of motherhood, hovering ever near, tending and watching over the slumbers of her progeniture, while dividing into smaller and more comprehensive periods, the larger measures of time, defined by the Solar orb. The apparent regulation by the Moon, of many of the most important *minutiae* of the maternal functions—matters which have been taken ample note of by scientists and need not be here enlarged upon, decided the primitive view of the intimate relations between Sun and Moon; leaving it to the wisdom and application of those duly set apart for such purposes, to examine and define the relation of all things terrestrial, to the cosmic parents of the Universe and their recognized progeny, the planets of our own system, which were with unerring accuracy singled out from among the heavenly host. All of this is, of course, skimming rapidly over a most fascinating story, which has been told and re-told, and which may be luxuriated in, in detail, in many absorbing volumes; but it is necessary to re-capitulate it, in a measure, to establish our own connection.

It is to the immensely ancient Solar priesthood, known to ages much nearer our own times than those of their origin, as the Magi, that we must ascribe the discovery and embodiment of natural principles, in myth, dogma, prophecy and symbol. All speculations as to the precedence of one ancient religious system over another, fall behind the clearly demonstrable, self-evident precedence of the great Soli-Lunar cults over all. It will be universally recognized, sooner or later, that the tide of evidence can be neither dammed, nor “damned” back; that all of our most modern dogmatic conceptions, are but extensions and amplifications thereof—Christian and Turk, Jew and Polynesian, Mongol, Redskin and Tenton, all drawing their “water of life”, from the same spiritual source.

There is really nothing shocking in this, to the devout mind, from whatsoever point of view. It is certainly a jar, as the sudden awaking from a slumber of ages, must inevitably be;

but it is surely something to humanity, to feel the certitude that the many discords, in the world of spiritual contemplation, are but due to mis-conceptions and time altered versions of a great cosmic drama, in which the structure of the visible finite, world, is made manifest, as the image and symbol of the invisible and infinite.

Is it, indeed, disquieting that the mystic tragedy of Calvary, is written large by the hand of the Eternal, in the intimate structure of every rock and stone, every leaf and flower, each warming sunbeam and each cooling flake of snow?

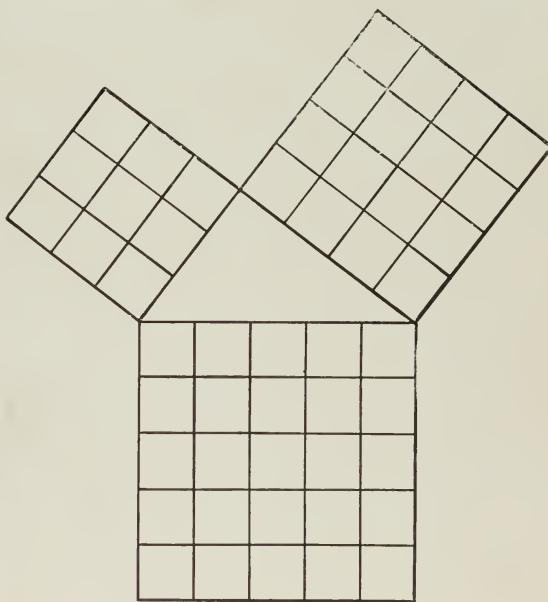
We shall never grasp the true spirit of ancient prophecy, until we are brought face to face with what the utterers thereof, custodians of the ancient wisdom, had in their hearts and souls, when they spake the burning phrases, which pointed unerring fingers at the manifestation of a Saviour of mankind.

The fires of fanaticism, effectually exterminated all possessors of the Magian lore, although there are many evidences of its retention, down to a late period of the Middle Ages. Even then, it is perhaps doubtful, whether or not, the main key remained in existence. The lack of certainty as to the puzzling analogies with which comparative religion is fraught and the absolute impotence of any human agency, to satisfactorily explain the consistency of early prophecies with later events, called for a stringent muzzling of all curious enquiry which the self proclaimed custodians of all Divine wisdom were unable to satisfy.

We shall see that these ancient philosophers were right about some things.

THE GEOMETRIC GENESIS.

It is Pythagoras who has come the nearest to putting us upon the track of almost all herein contained, for he has left us the most transcendent and illuminating proof that **he knew**, although silent, in the famous figure, known as the Forty-seventh problem of Euclid. In so great an extent indeed does the Divine truth (We prefer that term, even to "science") of Geometry enter into the matter that we are inclined to refer to the world's earliest conception of divine power and wisdom, as that derived from Soli-Lunar Geometry.



The Forty Seventh Problem of Euclid, acquired by Pythagoras of Crotona from Hur-Amen, a Priest of the Sun at Heliopolis, Egypt and while ostensibly setting forth a simple geometrical truth, in reality concealing the mystery of the Universe.

We may tabulate the earliest intellectual efforts of dawning civilization to have embraced conception of those abstract notions, which were most intimately related to the conditions of

the creature, as indeed they did, for we find no race, ancient or modern, without some definite notion of the rotation of the seasons and the cardinal points of the compass. Association of both of these ideas with the Sun and later with the rest of the celestial firmament, is simple enough.

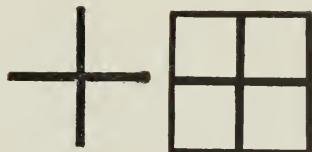
Did not the Sun-god in his majesty govern both of the seasons by his relative proximity and the sense of direction by his unerring course?

When man, emerging from barbarism, learned to express the latter graphically, by a single line, drawn in the direction of the course of the Sun, he had still to express the directions before and behind him and so by a stroke of some barbarian finger in the sand, long ago, the "Sign of the Cross" was transmitted



The Cross of the Cardinal points. Man's first step in human culture.

from the unfathomable mind of the Eternal, to the enquiring spirit of man. The association of the extremities of this figure with the number "four" was inevitable and it soon became apparent that the simple cross, surrounded by a boundary of four lines, like those of which it was composed, might be made to represent many things, by way of illustration.



The arms of the cross still continued to represent North, South, East and West; while the four ensuing smaller squares might represent the four phases of Solar influence, occurring between the periods of greatest intensity and least heat.

It might also have been observed that every time a square was thus divided by a cross, that a division into three additional parts was effected and that, thus, scales of accurate multiplication and division were established. Eventually the crossed squares would be still further rendered practical, by intersection, from corner to corner, establishing

the four intermediate points of the compass, when the resulting figure would and did present a rude hieroglyph of the Sun. Furthermore, the regular proportions and consecutive multiplications, would have attracted attention and been endow-

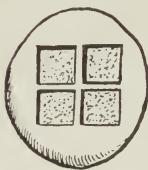
ed with a sacred significance—which is indeed precisely what occurred, for we find the name of God, still the Babylonian in-

Ilu, the character expressing surviving in the cuneiform of scribed bricks, seals and cylinders.

As to the arithmetical precision exhibited in the building up of even this simple figure we owe to it all we possess of that which lifts man above the primitive savage, for it was not only the observation and study of the phenomena of

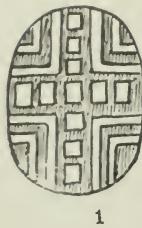


the heavens which engrossed the early Magi but the examination, line by line and proportion by proportion, of these regular figures, drawing from them arithmetical schemes, which duly compared with those determined by the procession of the uni-



1. Silver coin of Abdera in Thrace, with the Pythagorean four-square (Tetrax), B. C. 500;
2. Copper coin of Ancient Sicily showing eight-rayed sun in centre of Pythagorean Square.

the heavens which engrossed the early Magi but the examination, line by line and proportion by proportion, of these regular figures, drawing from them arithmetical schemes, which duly compared with those determined by the procession of the uni-



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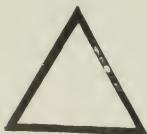
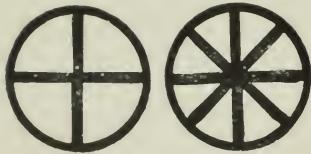
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1. Early Egyptian Scarabaeus with Cross, later extensively used by the Gauls. It has the quadruple significance of the elements of the Square, the Gamma-dion or Swastika, is a formula for the Squared Circle of equal area and the 5x7 squares of the Septenary Calendar. 7-4 connects it with the Equilateral Triangle. (About XIV-XV Dynasty.)
2. Coin of the Veliocassi, Gauls inhabiting the Valley of the Seine near Rouen at the time of Caesar's conquest. All of the emblems including the Sun Cross are of the ancient Magianism.
- 3-4 Reverses of Byzantine Coins showing the earliest form of the Crucifix, the letter X. The "10" of the Tetra on a Latin cross. Its identity with the Iu of the Magi need not be questioned. Both of these pieces bear busts of the Redeemer on their faces.

verse, were deemed sacred and propitious in relative degree to their coincidence.

The circular form of the horizon and of both Solar and Lunar discs, sufficed to bring this figure under speculative examination from similar motives almost as soon as interest had been established in the phenomena of the cross and square. It was found that the circle was susceptible to all of the symbolical

meanings of the square and that even in a more picturesque degree, also that boundaries might be described for every manner of plane surface, expressed in every shade of polygonal graduation, from the three sided triangle through square and pentagon, hexa-



gon and octagon, to the figure of so many sides that further distinguishing of one from another became impossible, while every point on the perimeter seemed equi-distant from the centre—the Circle. Thus were the chief figures of what we now term "Geometry" established and their extension to the description of solid masses made the basis of all that is involved in our physical science of to-day.

It was found, upon experiment, that all of these figures possessed wonderful inter-relation, by which their volumes or extents might be compared with such precision that the processes might be described either through arithmetical **formulae**, or graphically, showing how by the designation of certain intermediate proportions, one figure could be instantly demonstrated to be equal in one or more respects to another.

It now became suspected, and rightly, too, that these transitions had been the means employed by God in the creation of the universe to produce an apparent infinite variety of matter from a single elementary substance, designated as "chaos".

Finally, the greatest triumph of all was achieved, the determination of the relations of the diameter or radius of a circle to its circumference, known as the **Pi** (Greek letter π), proportion, giving rise to an arithmetical process by which the circle might be squared.

It must be remembered that in the beginning these laborious researches were not pursued with any idea of rendering service to humanity by engendering inventions, or improving conditions. They were purely and simply enquiries into the nature of matter as far as could be derived from the latter's ascertainable properties, the processes of divine creation and the relation of the creature to the creator.

At the same time the heavens were being eagerly scanned for corroboration of the theories being established below and strange as the sequel may show it to be, with results so far-reaching as to extend their tremendous impress upon the human race down to the most intimate associations of the present time.

THE MAGI DISCOVERED THAT THE ARITHMETICAL NUMBERS EXPRESSED BY THE CHRONOLOGICAL RELATIONS OF SUN AND MOON TO EARTH WERE IDENTICAL WITH THOSE WHICH SOLVED THE GEOMETRICAL PROBLEM OF THE SQUARING OF THE CIRCLE.

Occupying themselves with both arithmetical numbers and geometrical proportions, they discovered that the precision of the latter was an infallible guide to the application of the former and so built up the exact science of arithmetic, concerning the origin of which there have been so many fruitless speculations. For this purpose they employed from the very first the division of the square by the cross, finding two systems of progression, each with a definite value and purpose and blending at frequent intervals, one employing a single square as its unit or nucleus and building up around it on a progressive ratio of 1—9—25

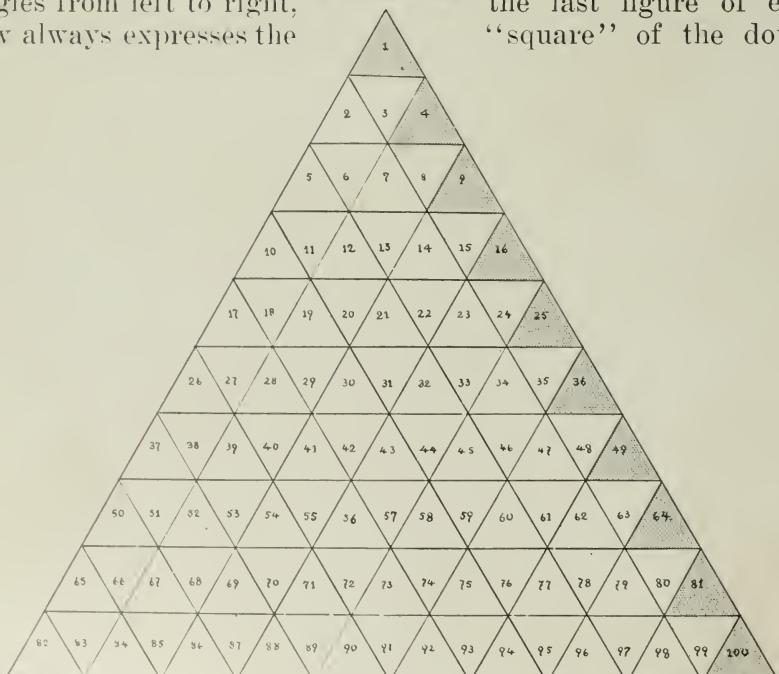
etc., the other dividing a square by a cross into a group of four central compartments and building upon a consequent ratio of 4—16—36 etc. (See Forty Seventh Problem), counting not only upon the total sums procured by each additional encircling row of squares, but the number in each row required to complete the circuit. It is from this latter scale that the three systems of notation which have reigned throughout the world, the Quaternary (2—4—8—16 etc.,) employed by the Semites and the Chinese, the Decimal and the Duodecimal (by dozens) are derived.

While the digital system of "fives" agrees with the Decimal system, it will be clearly perceived as this is examined into, that it was by no means its origin.

In addition to the wonderful properties of the foregoing system was discovered a similar notation, built up by sub-division of the Equilateral Triangle by other equilateral triangles. The smallest number of Equilateral Triangles into which any one could be divided being **four**, the progression was found to be **precise**, starting from a square, starting from a inasmuch as by number-angles from left to right, row always expresses the

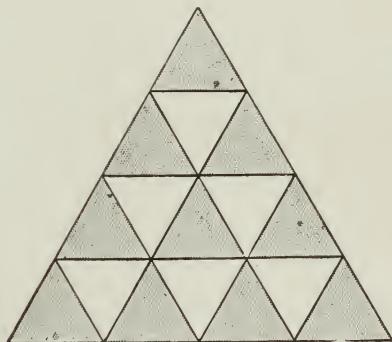


ly the same as that of a central group of four, ing the Equilateral Tri- the last figure of each "square" of the down-



The Equilateral Triangle an infinite "Square" of numbers. The sum of the Squares from two to ten is 384, the days of the ancient intercalary or "embolismic" year.

ward counting number of the row, while each total is the same as the total of a square figure of an equal number of divisions per side. This coincidence was in itself enough to place the Equilateral Triangle on a parity with the square as a source of "sacred" numbers, but the multiple Equilateral Triangle, was discovered to embody many extraordinary arithmetical properties of its own not the least important of which was the development in the up-pointing Equilateral Triangles of the first four rows, of the famous TETRAX appropriated by Pythagoras as the basis of his own philosophical system.



The Tetrax of Pythagoras.
(Tetragrammaton)

By the time this point was reached, the Magi had achieved great dexterity in demonstrating the manifold yet always orderly and mathematically exact relations between the various geometrical figures of equilateral proportions and the circle, executing elaborate calculations by horizontal, perpendicular and diagonal intersections of given squares which exhibited the results in **pictures** as well as sums. The dis-

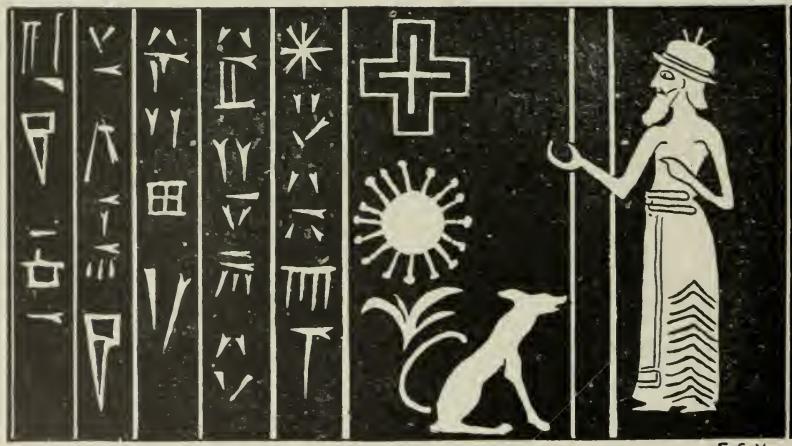
covery of the **Tetrax**, the sum of the first four digits equalling the whole number— $1+2+3+4=10$, (Expressed by the four angles of the Cross), and the infinity of multiplications by nine reducible to nine ($9\times 9=81$ etc.,) encouraged experiments in similar operations with the sums of numbers, so that certain numbers obtained significance not only with reference to their own properties but as the sums of dissimilar numbers added together. As the sum of 1 to 4 was 10, so the sum of 1 to 7 was 28, the sum of 1 to 8, 36, and the sum of 1 to 16, 136, all figures which came to have great significance in the Magian system.

These priests, prophets, astronomers and astrologers, gradually came to concern themselves with everything which could be accounted for through correspondences of form, number, or proportion and their great power was derived from their ability to successfully demonstrate a relation of all which came under their range of observation to the heavenly bodies.

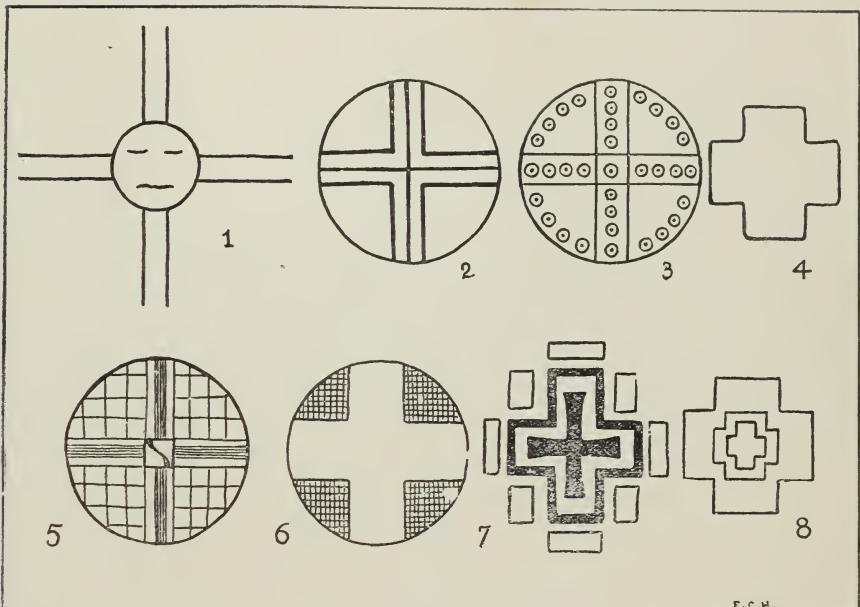
That the mystical should predominate in their appreciations is no more than natural. We shall see that without any

charge of superstition they had a right to be awe stricken at some of their discoveries and we shall before we have finished our examination, rather ask if we have not the same right to be held in wonderment ourselves.

The most wonderful of all their achievements was their determination of the almost supernatural qualities attached to the number 64 (sixty-four) which set out, according to their system in chequered squares, was undoubtedly the so-called "Mosaic pavement". This is stated by the Bible, (Exodus XXIV, 10) to have been revealed to Moses and the Seventy Elders upon Mount Sinai, where the congregation of Israel received God's direct command to employ it as a pattern for the plan of their Tabernacle and it also reaches us from the ancient Babylonians, Chinese and Egyptians, as the familiar "draught", or Chess-Board. The number **sixty-four** is the heart of the entire Magian system, because around it and its central "four" the Tetrax, revolves the whole numerical and geometrical system, to which the Magi sought to reduce the universe and the centre of that is **THE CROSS**.

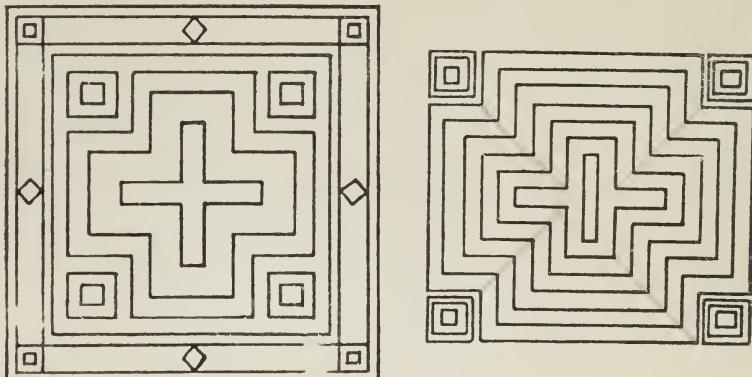


Enlarged impression of Ancient Babylonian Cylinder Seal showing Sun and Cross as objects of worship. The first word of the Cuneiform inscription is "**Hu**"—The God.



F.C.M.

Prehistoric Crosses of Ancient America. 1. Hopi, Moqui, Navajo and Zuni Indians of Arizona and New Mexico. 2-6. Crosses engraved on Shell gorgets by the Mound Builders. 7-8. Central American Crosses from Nicaragua. No. 3 is a Circle Squaring formula. No. 5 exhibits the "Dual principle" through the double curve which as the letter 'Jod' of the Semite expresses 10 or the Tetrax. 7-8 are each allusions to the "Forty Seventh problem".



Crosses from the Habbakhorten Mosque in Kashmir, a district in which cruciform decorative features abound. Compare with those from Central America.

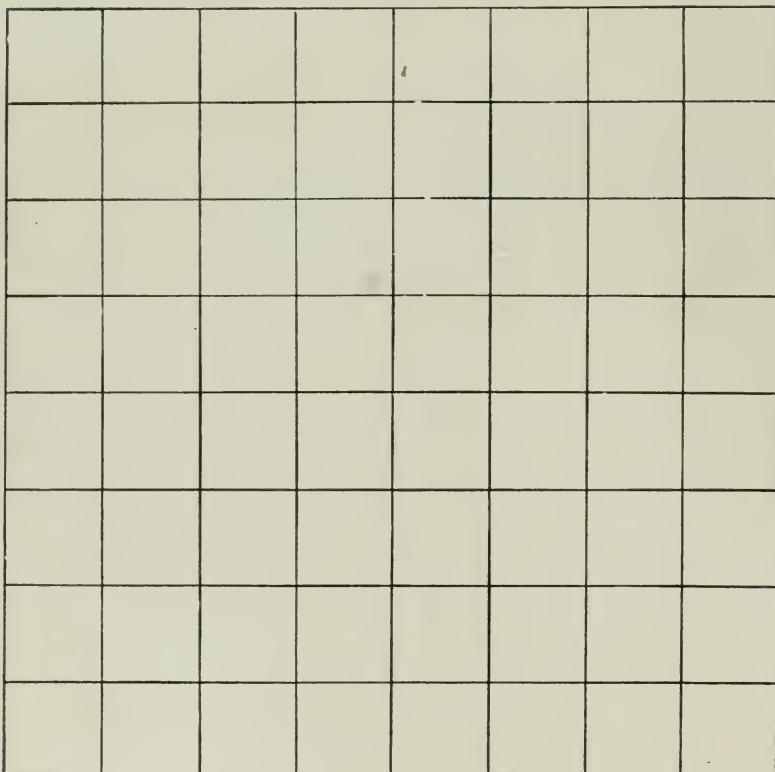
NON CHRISTIAN CROSSES OF ANCIENT TIMES.

MAGIAN MATHEMATICS.



It is essential that we do not forget in the midst of these arithmetical speculations, that the units with which we are dealing, are for the most part expressed by numbered squares. The reason for the selection of sixty-four, as the Divine number by the Magi, resided in the ascertained fact that upon the reduction of their premises to the test of numbers, as expressed either geometrically, or arithmetically, sixty-four proved to be the determinating factor of each and every one. *

*Aletheia—Truth, Kabbalah.



The true Mosaic Pavement, of Sixty-four Squares.

Here are a few of the considerations involved: The chief significance of the number 64 aside from that of it being the cube of four, resides in its being the sum of 36 and 28. These numbers, according to the Magi, expressed the Sun and the Moon, respectively because the, by them computed Solar year was one of Three Hundred and Sixty days, or ten times 36, while the more closely computed Lunar year was one of thirteen-times Twenty-eight, or Three Hundred and Sixty-four. These details may be verified by consulting any encyclopaedic article, or book upon the Calendar, ancient and modern. The discrepancy between the figures quoted and the true year amounts to five days, in one case and one in the other, but these lost days were utilized as feast days in Solar or Lunar honor and compensated for by intercalary years and the employment of cycles in the course of which all irregularities righted themselves.

The real reason of this approximation, however, was to bring the annual revolution of the universe into accord with the Quadrature of the Circle. A curious corroboration of this fact exists to this day in the ancient Jewish celebration of **c' Hanukah**, a festival which so closely coincides with Christ-mastide that there can be no doubt of its Solar inspiration. The rite involves the burning of a given number of candles during eight days, starting with one on the first day, two on the second and so on to the eighth day, when one additional candle called the **Shammas** candle (Babylonian **Shamash**, the Sun) is placed

in front. The significance of this scheme is entirely numerical. It is the addition of the digits 1 to 8, which we have already alluded to, which produces the Solar number 36, that upon which the initiates of the Pythagorean Mysteries were sworn to secrecy. The completed figure is that of an equilateral triangle, of eight units to one side. The triangle again represents **Adonai**, or **Tammuz**, in his Solar aspect and the eight "squared" by the equilateral triangle is sixty-four. Thirteen-six upward pointing and twenty-eight downward pointing smaller triangles.

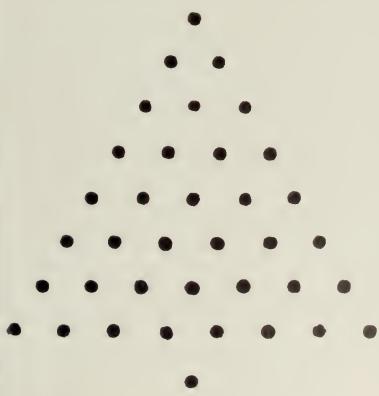
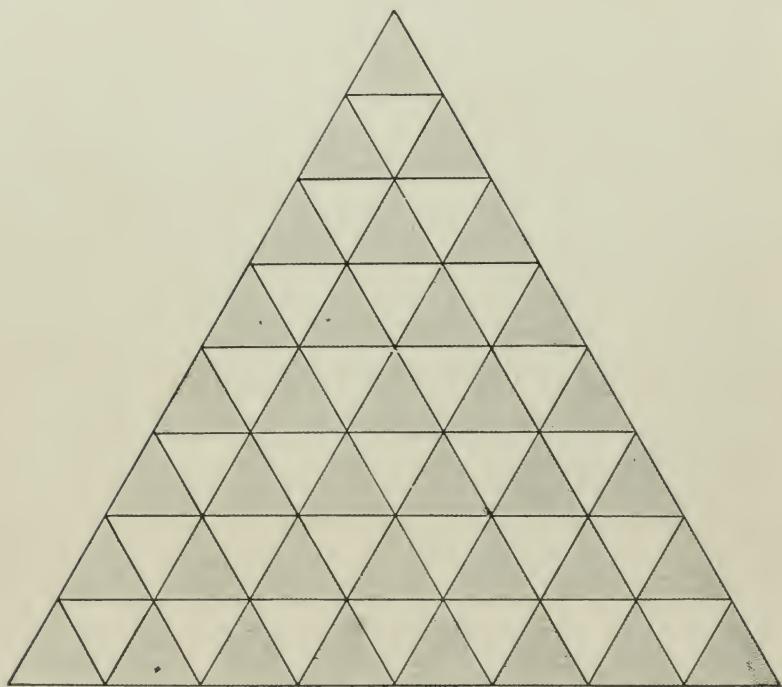


Diagram illustrating the Jewish c' Hanukah Observance, (The Greater Tetractys of Pythagoras.)

On the final day, the addition of the single candle gives the last row the value of nine, which is the diminutive of 36, leaving in the background the full Lunar number of 28. This custom, which is undoubtedly the origin of the lighted candles of the Christmas Tree, must extend back to the remotest antiquity.



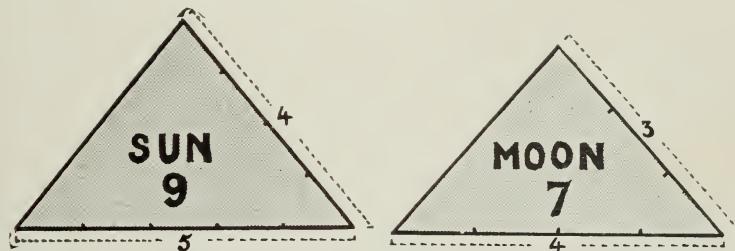
The "Gnostic Triangle", 8x8x8, symbol of the Manifested **Logos**. Establishes the relative Solar and Lunar numerical proportions. The upturned points correspond to the c' Hanukah diagram preceding.

The diminution of 36 and 28 to 9 and 7 is a matter of relative proportion as well as of number, the latter being the lowest factors in which the same proportions are preserved and the lesson sought to be inculcated is that nothing is too great to be brought within the ken of human intellect by such reduction.

There are not only one but **two** squarings of the circle. One in which the perimeter, or length of line of a given circle is shown to be equal to that of a given square. The second is the production of a circle the contained area of which is equal to that contained in a given square.

The slight difference between the two circles which respond to one and the same square is in favor of the former.

To discover the significance of the relative values of 9 and 7 in this respect we must turn to the pyramid system of the ancient Egyptians, who by the base line, sides, and vertical axes of these monuments expressed geometrical relations. The great Pyramid of Gizeh in this manner expresses the first named problem, in its base of 5 and sides of 4, (5 plus 4 equals 9), while the



Vertical sections of Egyptian Pyramids which express the two squarings of the Circle.

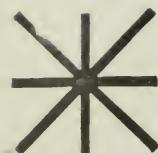
other, if expressed in the same manner would call for base of 4 and sides of 3, (4 plus 3 equals 7.) The vertical axis is in each case the radius of the correct circle while the base line of the pyramid is that of the square. The same proportions, differently expressed, are the basis of the wonderful Pythagorean problem of the square on the hypotenuse, which conceals almost the entire Magian system.

The agreement of $7 \times 9 = 63$, also comes so close to the united number as to nearly complete a numerical circle, $4 \times 7 + 4 \times 9 = 7 \times 9 + 1 = 64$.

On the "Chess-board" system of numeration, 4—12—20—28, we have $4+12+20$ presenting the number 36, as a "square" of 6 (6^2) surrounded by 28 smaller squares. Another row of 36, around, gives us a total of ONE HUNDRED, the "square" of 10 and origin of the decimal system. Further instances abound in other and widely varying demonstrations.

It was certainly among the Magi that those interesting numerical puzzles known as "Magic Squares" had their rise. Ostensibly the idea was to so align arithmetical numbers, displayed within a certain number of squares, that added in every sense, they would produce the same sum.

The idea of the "Magic Square" was not, however, as might be supposed, due to human ingenuity, but is attributable entirely to a natural property of numbers, beginning with the zero (°), rows of which, in sequence, and aligned so as to constitute horizontal and perpendicular series, invariably offer an identical



addition in every sense, thus constituting the **ILU** figure arithmetically as well as geometrically. No more perfect example of this principle could be offered than the thirty-five squares of our familiar monthly calendar, which always bring the same figures into perpendicular alignment. This

0	1	2	3	4	5	6	7
7	8	9	10	11	12	13	14
14	15	16	17	18	19	20	21
21	22	23	24	25	26	27	28
28	29	30	31	32	33	34	35

The ancient Septenary Calendar Tablet we still use. The outlined figures at the left show the manner of its perpetuation by continually setting to the left the right perpendicular row.

calendar designed to exhibit, numerically tabulated with relation to the month, four weeks of seven days, together with the three, or four, remaining to complete the mensual period is founded on a most curious Cabalistic "square", involving the elements of a table of multiplication, subtraction, division and addition, through the prime factor 7.

The number of squares involved is only thirty-five, but a remarkable metaphysical hint is given in the upper left hand square of nine figures, when the month begins on a Monday. The sums of the cruciform additions are each 24, three of them 1—8—15, 7—8—9, 2—8—14, but the remaining fourth is 8—16, clearly indicating an unrecorded thirty-sixth figure—a zero, the symbol of the "Non-being-Being", which sustains such an important role in

0	1	2
7	8	9
14	15	16

the theosophy of the ancient world. Upon the 35 square the cipher "0" does not exist until the relation between the 8 and the 16 shows that a symbol for non-existence must be placed in advance of the figure "1", to complete the divine symbol. The "0" possesses the same significance with reference to the "X" of 8—0, 7—1, and the cross of 80 of which the 2 is the apex. Thus the position of the zero "0" is shown clearly to precede "1" instead of following "9" and to demonstrate metaphysically the existence of non-existence prior to the development of "1" the Pythagorean "Monad", or first manifestation of existence.

0	1
7	8

The square thus symbolizes the "Non-being-Being", the Trinity, the Circle and Diameter, Beginning and End, $7+0=7$, the Lunar number, $8+1=9$, the Solar Number. 1—0, "Ten", the Tetrax, also symbolized by 1—2—3—4, $1-7=28$ (Lunar), $1-8=36$ (Solar) and $7+8+1+0=16$, the "Tetragrammaton". This is the true Cabalistic interpretation of the beginning of the Divine labor of Creation on the first day of the week, followed by a cessation of labor and repose upon the recurring period of the lunar septenary, which is the inspiration of the whole arrangement.

The amplification of the diagram to forty compartments, for the sake of demonstrating the Cabalistic relation of the numbers, one to another, in no way obscures its identification, as the eternal measure of fleeting time. Its base of eight squares and vertical axis of five squares will at once show it to be another of the mysteries embodied in the Great Pyramid of Gizeh.

3	1	4	1	5
1	4	1	5	3
4	1	5	3	1
1	5	3	1	4
5	3	1	4	5

A most curious example of the Magic Square, from which is said to have been derived the Jewish appellation of the eternal Elohim, is a combined Magic Square and anagram of the Hebrew form of the word ALHIM, "אלhim", having a numerical expression of 40, 10, 5, 3, 1, or 4—1—5—3—1. Arranged in a square of 5x5, it reads as here exhibited:—

It will be seen that the play is upon the numbers 3, 4 and 5, that the word ALHIM reads from the bottom to the top and left to right as a cross. The centre is a Sun-Cross adding 9 in either sense, in the midst of a 9 square of 28, while the top horizontal and left perpendicular lines are 3—1—4—1—5 (decimally 3.1415), which is the mathematical formula of the II proportion. The central Cross also supplies another circle squaring formula to the initiate.

	1
1	5
	3

There are several other Magic Squares extant which are of self-evident Magian origin, but none transcending in vital interest that which, away back at the dawn of civilization was deemed worthy to serve as a plan of the Heavens and key to the Firmament.



Mithraic Gem showing the Cross as a solar emblem at the extreme left.



Zodiacal coin of Perinthus showing Mithras enthroned with above his head the Sun represented by a Cross.

THE CELESTIAL SQUARE.

That the discovery of the arithmetical qualities of this square antedated the usage to which it was put there is not the shadow of a doubt. The latter is altogether arbitrary. Scientists have puzzled their brains for ages as to why there were just twelve signs of the Zodiac, precursors of the twelve gods of Olympus, the twelve tribes of Israel and the twelve Apostles, but so far as we can inform ourselves, no wonderment has ever been expressed that there should be four seasons instead of two, why the Mexicans should have adopted a Zodiac of twenty animal figures and why the Chinese should have taken an inner Zodiac of twelve figures and an outer one of twenty-eight constellations (the Astrological "Houses of the Moon"), together with a cycle of twelve years. The application is world wide, from Pekin to Peru, westwardly, but the correspondence with the Magian cosmogonic square of Sixty-four (4—12—20—28) was too strong to escape attention and the temptation to seek to discover if it was more than accidental, pressing. Recent experiments with the Magic Squares offered the suggestion of consecutively numbering the squares of each row according to their Zodiacaal sequence, commencing with the central "4" and giving the number "1" to the first of the Seasons, the Spring Equinoctial. Directly beneath this would come Aries, placing Taurus, the second sign of the western Zodiac in the proper corner. Commencing the following two rows immediately below in turn, in each case brought the Equinoctial and Solstitial signs into their proper corners:
$$\begin{matrix} E & | & S \\ \hline N & | & W \end{matrix}$$
 with the following result:

11	12	13	14	15	16	17	18
10	8	9	10	11	12	13	19
9	7	5	6	7	8	14	20
8	6	4	2	3	9	15	21
7	5	3	1	4	10	16	22
6	4	2	1	12	11	17	23
5	3	2	1	20	19	18	24
4	3	2	1	28	27	26	25

The immeasurably ancient Magian Square which gave the Zodiacaal system to the world and so lies at the root of all religions past and present. The central square at once explains the Cross as the symbol of "Ten", 1-2-3-4.

A few minutes study, forces one to the realization that here is to be found the most remarkable "Magie Square" of antiquity, a conviction which hours of experiment only serve to heighten.

Naturally, acquaintance with the Pythagorean system of arithmetical metaphysics fits the possessor for readier perceptions than are possible without it, but enough is readily apparent to show to even the casual observer the extraordinary character of the combination.

THE CROSS OF THE MAGI.

The same results which are otherwise obtainable and demonstrable through geometrical figures are here also presented through arithmetical numbers, the whole scheme being evidently intended to exhibit the creative functions of the numbers "3" and "4", the powers of the **TetraX**, (1-2-3-4) and the revelation of the cross. The first figure which obtains our attention is the cross instituted by the fourth and fifth vertical lines with the fourth and fifth horizontal lines. The sum of each is 136, but so divided that the fifth vertical column contains 36 and the fourth 100. The sums of the fourth and fifth horizontal columns are both 68, totalling 136 but the left arm of the cross adds 36 and the right arm 100, while the halves of the upright bar each add up 68. The central cross is of the Solar 36 exhibited as $10+26=36$, $18+18=36$, alternating in the same manner while the diagonals in the inner square are $22+14=36$; the whole giving the



complete ILU figure of 36, every number or group

of four numbers constituting the centre of a perfect numerical Cross.

The supreme secret of the entire square of 64 numbers is, however, revealed by its own diagonals, which are $11+8+5+2$, $4+11+18+25=84$, and $18+13+8+3+1+2+3+4$ equalling 52, a total of again 136 as added but as multiplied 84×52 equalling 4368, which will be found also upon computation to be the sum of 364×12 , or one cycle of twelve Lunar years.

The addition of the vertical columns supply sums which are remarkable factors to the ancient calendar year of 360 days (especially the number 29, the "synodical" period between full moons), while the horizontal additions are in precisely reversed halves, 116—92—76—68—68—76—92—116, a sum total of 704, again a number of marvellous significance when explained. The "as above, below" additions of dissimilar numbers, occupying relative places in the upper and lower halves of the square is also a source of perpetual curiosity. Finally, as far as the writer has been able to discover, the sixteen cardinal point numbers which are the diagonals of the whole square constitute in them-

selves a "Magic Square", no less remarkable, being as follows:

N. E. W. S.

4	11	18	25
3	8	13	18
2	5	8	11
1	2	3	4

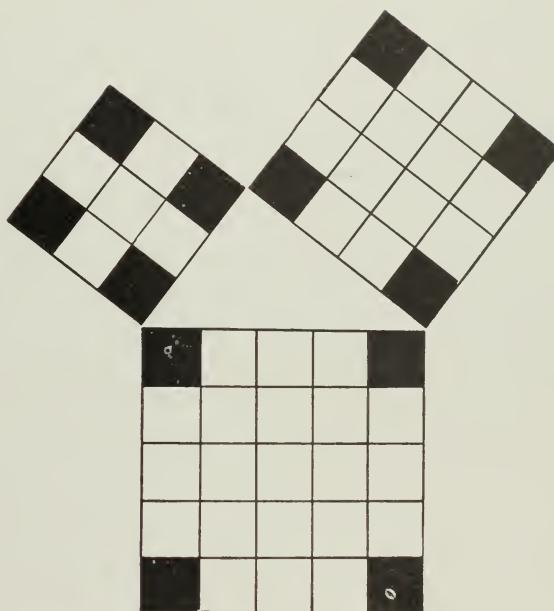
The Magic Square of the Cardinal Points.

The sum total is, of course, $52 + 84 = 136$. The additions are vertically and horizontally identical, though reversed, $10 - 26 - 42 - 58$. The sums of the nine sets of four contiguous squares are $26 - 74 - 10 - 26 - 34 - 50 - 18 - 18 - 50$, numbers which inter-add, combine and re-combine in changes upon the grand total of 136 (itself 1 plus 3 plus 6 equals 10) in a manner which can hardly be conceived by anyone who has not made the experiments. The central and outer parallelis are always 68, as is also the sum of the two diagonals.

It will not pass unnoticed by those acquainted with the formula of the squaring of the circle for equal perimeters that the base of the square being equal to 8 and the radius of the circle equal to 5 identical measures that the 84—52 of the figure to which we have been giving attention, is within a minute fraction of the same proportions besides expressing the "ILU" figure to perfection. This method of procuring numerical crosses being continuable to infinity gave the ancients' conception of the starry universe, of which they took it as a type and we have every reason to believe that this plan (possibly extended to 12×12 , or the 144 square) was the basis of Saint John's mystery of the Heavenly City of the Apocalypse.

That it was one of the numerous mysteries embodied in the Pythagorean problem (47th of Euclid) and which must have been the very centre of the philosophical speculations of the Pythagorean school at Crotona is self demonstrable. The tablet here given is restricted to the proportions of 64, or 8×8 , as within those confines are found the considerations most important to our present essay. As we have said, however, the system of which it is the centre is extensible to infinity with identical results. Every square, except those lying directly on the middle vertical line below the Zodiac, where highest and lowest figures meet, whether of one, four, nine, sixteen, or other number bounded by four equal sides, is the centre of a numerical cross. The

Pythagorean problem exhibits three such Crosses, which may be realized by merely omitting the corner squares. They may be utilized thus, as guides, in counting.



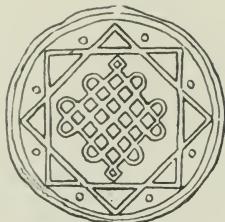
The Clues to the Arithmetical Crosses of the Forty
Seventh Problem.



Thick East Indian Native Copper Coins bearing the
ancient Cruciform Symbols of the Magi.



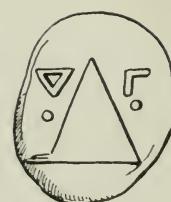
Egyptian Mohammedan Coins
with the Numerical Crosses of
the Pythagorean Problem.



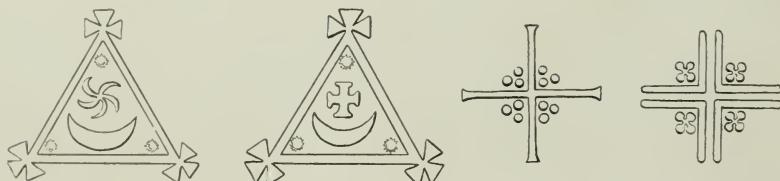
Turkish Coin struck under Sultan Mahmud II, A. H. 1231 at Bagdad, showing the Pythagorean Tetragrammaton.



Another Turkish coin of same period showing Solar-Lunar geometrical figures.



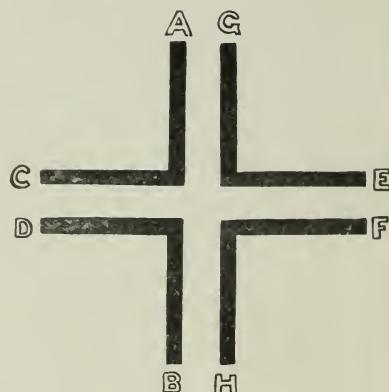
Stater of Malllos, Ancient Greece, showing Pyramid with Circle-squaring formula $\Delta \cdot \Gamma$ (4-3), Circa B. C. 500.



Devices of early Irish coins of the Norman rulers showing evidence of Magian knowledge.

The astonishing fact is also apparent that on all Crosses of which the central TETRAX (1-2-3-4) is the heart, the halves of the vertical lines will be found to equal the halves of the horizontal arm after the following formula: A-B, G-H and C-E, D-F are equal amounts, the sums of A-B and G-H will be unequal, the sums of C-E and D-F will be equal and those of C-D and E-F unequal, but C-D will equal A-B and G-H will equal E-F, while A-G and B-H equal C-E and D-F respectively.

The formulation of the rule by which this wonderful chart is governed may be possible to an advanced mathematician, but it seems to the writer and re-discoverer to, while making apparent many interesting arithmetical principles, defy exhaustive analysis. Many of the "Magie Squares" involved count, not only vertically and horizontally but diagonally, in the same sums, as



5	6	7	8
12	13	14	15
19	20	21	22
26	27	28	29

dous whole.

The real study only begins here, when, one by one, we apply the test of either number or proportion to the whole range of ancient symbolisms, and discover that they and the philosophies of which they are the illustrations are all parts and parcels of the **one great cosmic mystery**.

Swastikas, Triquetras, Crosses, Suns, Stars and Crescents, Ankhs, Taus, the "palmettes", lotuses and ornamental traceries of Palace and Temple, The gods of Olympus, the Pyramids of the old world and the new, the "Calendar-Stones" of the Aztecs, the "Prayer-sticks" of the Incas, the Totems of the frozen north, the Labarynth through which roamed the Cretan Minotaur, the winged Bulls of Sargon and Sennecherib, the hidden wisdom of Mede, Persian, Assyrian, Babylonian, Chaldean, Israelite, Hindoo, Gaul, Viking, Mongol and painted savage are all bound up in the system which we have just dissected in part and which affords countless proofs of its authenticity in the sense claimed for it, now in our possession.

Best of all, we find the entire unfolding of the theological system, which beginning with the forecasts of the Sabaeon Magi, shaped the prophecies of Israel and culminated in the mystery of the fulfilling life, passion and death of Jesus, the Christ.

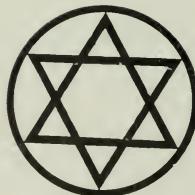
We find therein the key to the tribal and heraldic devices of the ancient world and the beginnings of modern Heraldry.

We learn the secret of the architecture of the temple and the orientation of the sacred grove.

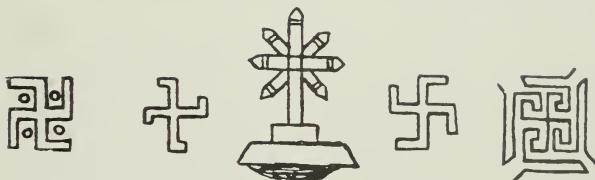
All these were derived in secret from the mysteries of Soli-Lunar geometry and it adds not a little to our wonderment to

wholes, equal or unequal parts. A Magic Square which exhibits the 68-136 potentiality in the very highest degree exists as the very heart of the Calendar, with the additional peculiarity, that it exhibits the larger sum as an OCTAGON as well as in the usual ILU form. The ground which we have covered, in this necessarily short resume of a tremendous subject, is, while it covers the essential features, but an infinitesimal part of the stupen-

find in the revelations of the microscope concerning the structure of various kinds of matter, that no laws of structural proportions or types of form are to be discovered higher than those wonderful figures worshipped by our ancestors thousands of years ago.



CROSSES AND SWASTIKAS.



The division of the perfect square into sixty-four quadrilateral divisions, is one which from the wide range of its applications to ancient symbolism, must have been held in peculiar reverence, by those who extracted from it so much pertaining to their most sacred contemplations. As we have already hinted, its identity with the legendary Mosaic pavement of Solomon's Temple, is far from problematical.*

In our easy familiarity with the more common mathematical processes, connected with our ordinary daily transactions, we seldom if ever stop to reflect upon the fact, that both the numbers we use and the systems upon which we use them, had to be evolved and perfected, at some stage of the world's history.

Judging by the mathematical perfection of most of the monuments of antiquity, which have remained to our day, the man of B. C. 5,000 was little intellectually inferior to his descendant of our own time. Having been enabled to form an estimate of his reliance upon geomet-

Jar of the Bronze Age found near Bologna, Italy. Decorated with Swastikas, Circles and hints at the 3-4 proportion.

rical formula, as the basis of all truth, human and divine, let us see if many of our most familiar emblems, do not owe more than passing association to such convictions.

We have no need to enter into a dissertation upon the Game of Chess, to prove either the antiquity of that game or of its companion, Draughts, or "Checkers", for that of both is attested by history to extend backward to the dawn of civilization.

*"Then went up Moses and Aaron, Nadab and Abihu, and seventy of the elders of Israel:

"And they saw the God of Israel: and there was under his feet, as it were, a paved work of a sapphire stone, and as it were the body of heaven in his clearness." Exodus XXIV, vv. 9-10.

"And look that thou make them after their pattern, which was shewed thee in the mount." Ibid. XXV, 40.

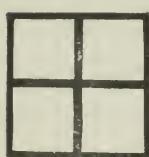
We do ask, however, why the number “64”, should have been selected not only as that of the squares of the Chess Board, but to figure in countless associations with religio-geometrical formula and we think we answer the question partly in our statement, that as the sum of 36 and 28, it became sacred to the Sun and the Moon, and consequently to all religion of Solar-Lunar inception, while its exact half, 32, has uses and a symbolical significance entirely its own, of the highest importance.

The ancients had the same moral conviction as ourselves, in their case based upon pure geometry, that the Supreme Being was made up of infinite space, infinite time, infinite wisdom, power, strength, and **truth**, the latter expressed above all mathematically and geometrically.

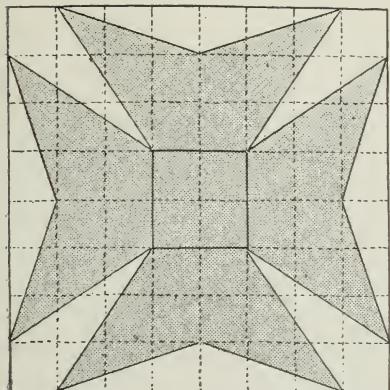
The mathematical axiom of truth, is that it must fit all other truths just as untruths could only be made to fit other untruths, which must be manufactured to fit them.

Therefore, geometrical symbols of Divinity must prove themselves, by their entire fidelity, not only to the known facts of the visible and calculable universe, but by their accordance, one with the other, so that whatever the apparent differences, the application of the Solar-Lunar mathematical, or geometric test would attest by the preciseness of its results, the principle of Divinity.

The most ancient expression of the Supreme Being, is that of the “square”, typifying the universe and divided into four equal parts by a cross, indicating intrinsically, the outstretching of arms from a centre to touch the limits of **space** as does the Sun, and developing by its relation to its sides a Swastika, typical of the eternal revolution of **time**, a circular movement, corresponding with the disc of the Sun.



To entirely surround the four square, thus constituted with squares of exactly equal size, requires, as we have seen, just twelve and these are the squares to which were apportioned, the signs of the Zodiac, the entire sixteen constituting the famous “Tetragrammaton” of the Jewish “Kabbalah”. We have noted that the total of these squares is one fourth of 64 and one twenty-fourth part of 384. Another boundary of squares, on the outside of this requires 20 to establish, which is an eighteenth of 360 and added to the 16 within makes 36, the tenth of the same number. Another row all around, adds 28 squares, a thirteenth of 364, bring-



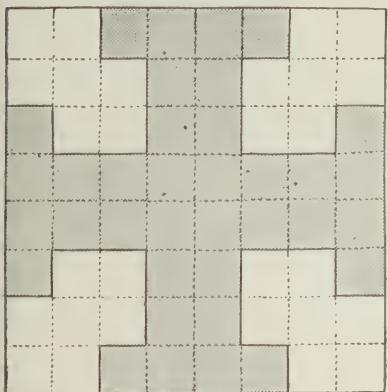
Eight pointed Cross representing objectively the number Sixty-four.

will be found to be built up around one central square, on a scale of $1+8+16=25$. We have reviewed the sacred significance of these squares, as expressed in numbers.

It seems almost impossible to convert these 100, or 64 squares into anything but Calendrical figures, by the subtraction of small squares from the corners, so as to produce Latin Crosses, or by symmetrical diagonal intersection, the form of the so-called Maltese and other Crosses, which occasion so much surprise in those who, supposing them to belong exclusively to modern Heraldry, find them as amulets, on the necks and wrists of Babylonian, Ninevite and Persian Monarchs of the earliest dynasties. There is no doubt,

ing the sum of all up to 64. The larger figures will be at once recognized as the basis of most of the ancient Calendars.

It is not patent to our present argument, but important as showing the natural origin of the decimal system, that a single additional row of squares requires exactly 36 and that the total thereof is one hundred. This number will then be made up of four equal divisions of 25 squares, each of which, taken in the same sense,



So-called "Jerusalem" Cross. A division of Sixty-four into thirty-six and twenty-eight.

- squares into anything but Calendrical figures, by the subtraction of small squares from the corners, so as to produce Latin Crosses, or by symmetrical diagonal intersection, the form of the so-called Maltese and other Crosses, which occasion so much surprise in those who, supposing them to belong exclusively to modern Heraldry, find them as amulets, on the necks and wrists of Babylonian, Ninevite and Persian Monarchs of the earliest dynasties. There is no doubt, but that the original Cross and Swastika, were the lines indicating divisions, but by extension they came to have compartments of their own and we find them blocked out on the square of 64, or in more numerous divisions as perfect geometrical symbols of the Chronological cult of the times which produced them. The whole family of Crosses and Swastikas, as well as of certain pointed crosses, which partake of both the nature of crosses and stars, belong in their entirety to the nature-

of Solar amulets, blocked out upon such squares. All speculation as to the reason for the selection of given numbers for the division of time is entirely silenced by this remarkable testimony, which embraces the most sacred symbolism of the ancient

world and connects it with our own age, by an association at once touching and reassuring of unswerving purpose in the eternal intention. In the presence of these time hallowed monuments of the Mede and Persian, Chaldean and Babylonian, Jew and Gentile, Mongol and Seyth, Greek and Latin, Hindoo and Celt, Blonde Scandinavian, swarthy Redskin and tatooed Maori,

A bronze fibula or brooch of the ancient Etruscans, of which a Swastika is the principal motif.

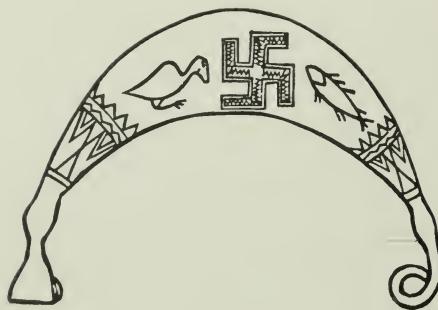
the veil of time is torn away indeed and we realize that the eternal **Kronos** is He who is and was and ever shall be.

There is to be found, scattered among the libraries of the world, a great mass of pre-historic cross and Swastika literature, devoted, not to elucidation of the mysteries they are reputed to conceal, but to marvel at their inexplicability, in view of their undoubted universality. There is no denying that the Cross was a world wide symbol, ages before it became commemorative of the Christian religion, and we think that in the preceding narrative, we have thrown much light upon the reasons why.

Says Mrs. Murray-Aynsley, in her: "Symbolism of the East and West." (George Redway, London, 1900).

"It is only within the last few years that the Cross has been known to have existed among the pre-historic peoples of North America, as well as among some of its present Indian tribes, who use it both as a Sun and a weather symbol. The so-called "Mound Builders", were also familiar with the cross.

In a narrow valley, near the little town of Tarlton, Ohio, there is a remarkable earthwork, in the form of a Greek Cross. It is raised about three feet above the adjacent surface, round it is a shallow ditch, exactly corresponding to its outline. Amongst other reliques which have been found, on opening some of these mounds, are inscribed shells, or shell "gorgets", as

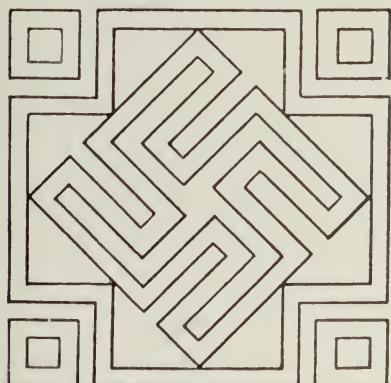




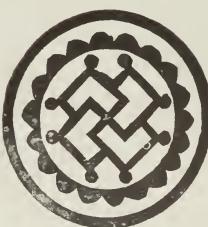
The famous "Bird Gorget" a shell breast pendant of the Ohio Mound Builders, made ages before Columbus discovered America. The 3:4 proportion is numerically given in the waved line at the right.

they have been styled, on the assumption that they were probably neck and throat ornaments. One of the most remarkable, is the so-called **Bird** gorget, in the centre of which is a Cross of the Greek type (illustrated), placed within a circle, around which is a star of twelve points, an apparent combination of the Cross and the Sun. Opposite the four arms of the Cross"(and as Mrs. Murray-Aynsley fails to note, constituting a Swastika) are rudely drawn bird's heads." European **savants** concur in attesting the existence all over the

European Continent, of Sun, Moon, and Fire symbols, (Fire being accepted as symbolical of the heavenly luminaries), which are cut upon stones and boulders in a variety of ring, cup and cross shapes, and as ornaments belonging to the Bronze Age, are to be found the "Wheel Cross", considered to be an emblem of the chariot in which, according to the most ancient belief, the Sun was supposed to drive through the sky."



Swastikas and Crosses combined, from the Habbakhorten Mosque, Kashmir, India.



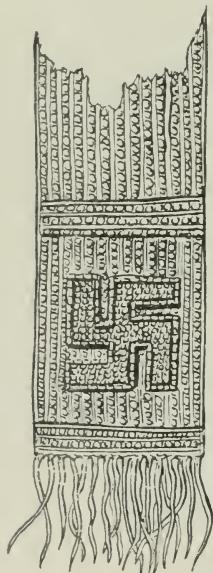
Corean Amulets showing the Swastika Cross surrounded by Solar rays. From H. A. Ramsden's "Corean Charms and Amulets".

The Jesuit Father, Louis Gaillard, of Shanghai, China, who is the world's greatest authority on the subject in hand, says in his learned treatise "**Croix et Swastika en Chine**". "The Swas-

tika is of great relative age in Asia, because it is found mentioned in the Ramayana (on the boat of Rama). Elsewhere, the Buddhist books pretend that when the mourners desired to burn the body of Gautama Sakyamouni, (**Sakyamouni**, means Seythian Prince-Buddha was a white Aryan of what would now be called Slavonic extraction) his remains were found to be incom- bustible by natural fire. Suddenly, however, a flame burst forth from the Swastika tatooed upon his breast and reduced the corpse to ashes. The most striking feature of this symbol, is its universality in all times and in every place.

It is found throughout the immense region bounded by the British Isles and those of Japan, taking in not only all of Asia, but the African coasts and Mediterranean archipelago, where it was in use at the time of Confucius. (550-479 B. C.). Crossing the Atlantic, (or the Pacific), it is found among the Peruvians,

and Mexicans, of the "New World", in Yucatan, Paraguay and all over the North American Continent. There is no important excavation of an ancient site made, which does not reveal it and the time does not seem far distant when we shall be able to constitute a map of its geographical area, which will be greater than that of civilization. When shall we be able to determine the time when our ancestors, Iranian, or Turanian, first evolved it? It seems beyond the possibility of doubt that the "Swastika", to preserve its Indian name, was above all and before all a symbol in the mysterious, or mystic sense. Christian archaeologists have vied with each other, in searching for proof that the Swastika was the most ancient form of the Sign of the Cross". In this they are correct, the moment that it is admitted that combined with the Latin cross in the square, it represented the universal God of time and space, whose personal sym-



Swastika in bead-work of North American Indians.

bol was the Sun. M. Mortillet, author of "**La Musee Pre-historique**" and **Le Signe de la Croix avant le Christianisme**, affirms that the cross is simply borrowed from the old Indian religions". The origin of the cross has been most erroneously sought in the Egyptian "symbol of life", the **Ankh**, as well as in the Swastika.

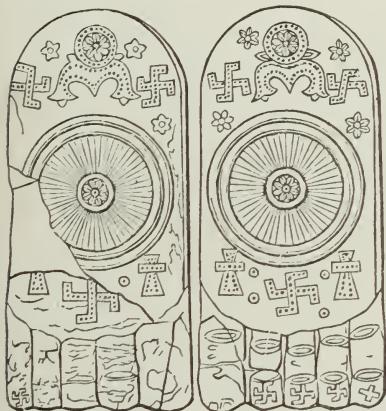
Neither assumption is correct in the sense sought to be conveyed. The employment of the latter as one of the characters of the Chinese dictionary as the arbitrary sign for **Wan**, meaning 10,000, but extension given the sense of infinity, is a key to its primitive sense. The Japanese acclamation Ban Zai, is only the Chinese **Wan Soi**, ten thousand years and the "ten thousand and" is equally expressible by a Swastika or **Wan**, a scorpion, the body of which is composed of a cross, within a circle (old style), or within a square (new style).

The reverence in which the Swastika is held by Buddhists, is evinced by its multiple application to the famous sign of the foot-prints of Buddha, which are cut in the rocky paths, in all countries where the cult of Saky-mouni is paramount, for the adoration of the faithful—an example which Roman Christians have not failed to copy (See

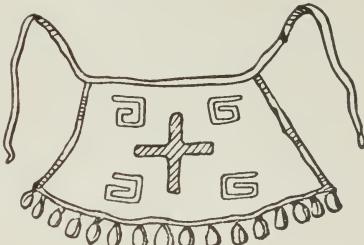
"Quo Vadis"). The presence of many six petalled flowers, (or stars), surrounding the "Wheel of the Law"—or Sun disc, speak for themselves.

Dr. Schliemann says that from the remotest ages, Cross and Swastika alike, have been the most ancient symbols of our Aryan ancestors and George Moore inserts in his "*Lost Tribes*" (page 16), a significant symbol which he calls the "*Tree of Buddha*", without, however, disclosing its origin.

The spread of the cross and Swastika over the whole expanse of the American Continent, together with ample evidence that geometrical stars and figures derived therefrom were widely venerated, is attested by the splendid records of the Smithsonian Institute of Washington and various U. S. Government surveys, conducted at the expense of the Department of the Interior, the records of which have been



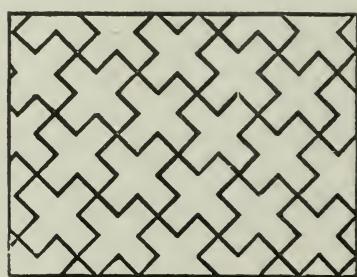
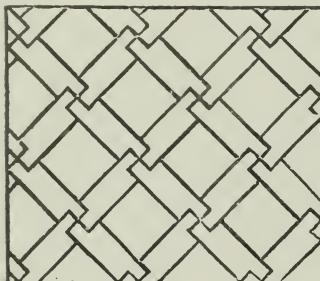
The "Footprints of Buddha".



Ceremonial Apron of ancient people of Nicaragua with Cross of the "Tet-rax" and sixteen pendants.

printed from time to time. While the Mounds of California have proved most prolific of cruciform symbolism, no part of America is exempt, Ohio and Tennessee being particularly favored. As for Mexico, the home of the far famed Palenque and countless other symbolical crosses, and Central America, we reserve their interesting phases of the subject for more extended comment.

The Swastika is extensively employed on the coins of the Greeks, Bactrians, Western Mongols and peoples of India. We have noticed at least one instance of it in connection with the six-pointed star of the Mohammedan coins, and we have it in our possession roughly outlined in blue pigment on the breast



Japanese decorative patterns in which the lines form Swastikas and the plane figures are Crosses.

of one of the three figures of a baked clay **Triad** of the Pueblo Indians of Arizona. Even so distinguished an Orientalist as the late Professor Max Muller was not, upon his own written statement to Dr. Schliemann, who had desired him to throw if possible, some light upon it, able to give any reasonable explanation of the Swastika, beyond its etymology from the Sanscrit, its mention in the Rig-Veda, as one of the signs employed in marking cattle and its Buddhistic associations. It was, said he, the first of the sixty-five auspicious signs recognized by Buddhists in the sacred foot-prints of the Master and among the Jains, the sign of their seventh Jinn (Genie) **Suparsva**.

The use of the Swastika in place of the Sun on coins and other objects has long been recognized by scholars, the only alternative thought of any value suggested, that given the employment by the Chinese of a square containing a Cross to indicate an enclosed space of earth, it might have meant by extension the terrestrial world.



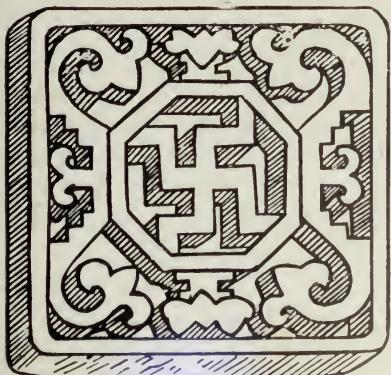
Chinese decorative panel which shows the Swastika alternating with Crosses on Octagonal Solar figures, the two dragons being the "Dual principle".

mistakable figure of the revolution, would lead us to regard it as a symbol of planetary revolution in general, applicable to any revolving body of the universal cosmogony, but of course more especially to the Sun.

The whole problem hangs upon the amount of assumption which we are warranted in entertaining that all of the ancients were at all times densely ignorant of the present known facts of the procession of the universe.

This is a question, which has been much under discussion without being brought to any such satisfactory conclusion that

Science has felt warranted in pronouncing dogmatically upon it. We however have the authority of many of the ancient writers not only for the globular form of the earth, but for the existance of conditions in far distant regions which are the direct result of this form of the earth coupled with its relations to Sun and Moon as at present ascertained and also of the ancient knowledge of lands vulgarly held to be discovered at a much later period of the world's history.



A Chinese lattice with the Swastika on Solar Octagon as Central Motif.

The earliest known teacher of the globular form of the Earth was Pythagoras Eudoxus of Cnidus, who lived *circa* 370-60 B. C. at which time he offered the mathematical proofs of his assertion and was the instigator of the division of both celestial and terrestrial plans into zones.

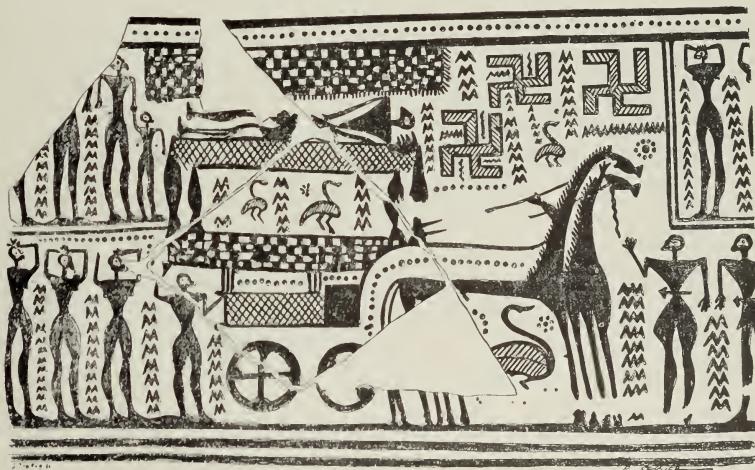
A huge globe, so divided, was constructed at Pergamum, by one Crates of Mallos (160-50 B. C.) (See Coin of Mallos, page 36), and the representation of a celestial sphere in the hands of Urania, goddess of Mathematics, was only one of its significant applications in early times. The subject of the Swastika brings us to the consideration of one of the most remarkable of all Dr. Schliemann's discoveries at Hissarlik on the site of ancient Troy, that of terra-cotta spheres or small globes upon some of which are clearly indicated the Sun and Moon with many stars and others of which are marked with encircling zones or bands, exactly in number and position indicating the Arctic, north temperate, equatorial, south temperate and antarctic regions, the path of the Sun around the equator being marked with a circle of Swastikas, and a single sign like a capital "N" laid on its side. There was a bitter controversy between Professor Schliemann and his critic, Dr. E. Brentano of Frankfort-on-the-Main, upon the subject of these clay balls, the latter vehemently contending that they so conclusively proved that the people who produced them were so well acquainted with the globular form of the earth that the locality claimed to be Homer's Troy by, Dr. Schliemann, must be comparatively modern.

Mr. Edward Thomas, of London, who shares with Father Louis Gaillard, S. J., the reputation of special competence concerning Swastika signs, has said in his "Indian Swastika and Its Western Counterparts", "As far as I have been able to trace or connect the various manifestations of this emblem, they one and all resolve themselves into the primitive conception of solar motion which was intuitively associated with the rolling or wheel like projection of the Sun, through the upper or visible arc of the heavens, as understood and accepted in the crude astronomy of the ancients. The earliest phase of astronomical science we are at present (1880) in a position to refer to, with the still extant aid of indigenous diagrams, is the Chaldean. The representation of the Sun, in this system commences with a simple ring or outline circle, which is speedily advanced towards the impression of onward revolving motion by the insertion of a cross or four wheel like spokes within the circumference of the

normal ring. As the original Chaldean emblem of the Sun was typified by a single ring, so the Indian mind adopted a similar definition which remains to this day as the ostensible device or caste mark of the modern Sauras or Sun worshippers. The tendency of devotional exercises in India, indeed, seems from the first to have lain in the direction of mystic diagrams and crypto symbols rather than in the production of personified statues of the gods, in which it must be confessed that unlike the Greeks, the Hindoos did not attain a high style of art."

Adds Schliemann, "The  or  may be found

in nearly all countries of Europe and in many countries of Asia. We see them on one of the three pot bottoms found on Bishop's Island near Konigswalde, on the right bank of the Oder as well as on a vase found at Reichersdorf near Guben. A whole row of

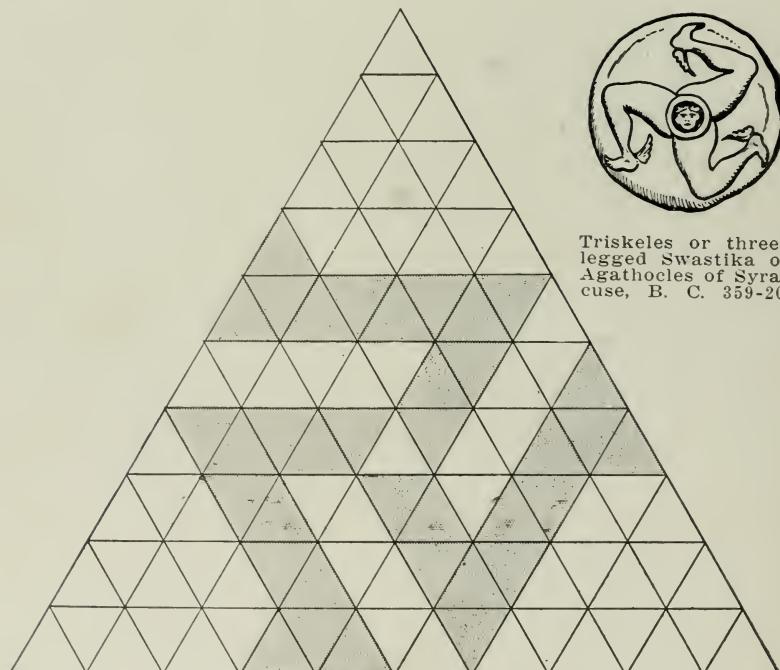


Fragment of Archaic Greek Vase discovered at Athens. A funeral scene in which both Swastikas and other indications of a geometrical cult are lavishly employed.

them may be seen round the famous pulpit of St. Ambrose at Milan. The sign occurs a thousand times in the Catacombs of Rome. We find it very frequently in the wall paintings of Pompeii, even more than one hundred and sixty times in the so-called Street of Vesuvius. We see it in three rows and thus repeated

sixty times upon an ancient Celtic funeral urn found at Shrop-ham in the County of Norfolk, and now in the British Museum. I find it very often on ancient Athenian and Corinthian vases and exceedingly frequent on the jewels in the Royal tombs at Mycenae, also on the coins of Letcas and Syracuse and in the large mosaic in the Royal palace garden in Athens. The Rev. W. Brown Kerr, who visited me in 1872 at Hissarlik, assured me that he had seen it innumerable times in the most ancient Hindoo temples and especially on those of the Jains. I see also a Swastika on a vase which was found in the County of Lipto, in Hungary, and is preserved in the collection of Majlath Bela; further on terra cottas found in the cavern of Barathecy, Hungary."

Most scholars resident in China have been so impressed with the prevalence of the Swastika, ancient and modern, singly and as the motif of innumerable decorations that they have become convinced that it was thoroughly Chinese, while during the Ash-antee war some rectangular and hexagonal bronze weights were



Triskeles or three-legged Swastika of Agathocles of Syracuse, B. C. 359-20.

The form of Swastika known as the "Triskeles", which the Island of Sicily anciently used as its symbol. This is a Solar symbol of Thirty-Six Triangles inspired by the almost triangular shape of the island.

looted at Coomassie which bear the most perfect Swastikas imaginable."

We have quoted in the foregoing a mass of testimony to all of our contentions, including all the distorted view points which savants have been constrained to assume because of the utter absence of any clue to the primitive intention. The secrecy and esotericism of all peoples or records which could have been expected to throw any light on the subject is most plain.

No association of the Swastika with other Solar, Lunar and geometrical symbols any where approaches in volume and importance their employment on the coins of the Celts over their entire path from the Mediterranean to the North Sea. They seem to be inseparable from Druidical worship. The writer possesses, himself, coins of the **Veliocasses**, a Gaulish tribe which settled before the dawn of north European history, in the valley of the Seine, just above the **Parisii**, which unites the five pointed geometrical pentalpha to an "ILU" Solar symbol, flanked by bird and reptile, precisely as we find this combination on the national emblems of Chinese and Japanese to-day.* Of Zodiacial signs, geometrical figures, Celtic crosses, diapered (Chess-board) squares, triangles, Pyramids and "Zigurats" there is no end, in fact we find all the essential features of our whole proposition in vast profusion extending over immense expanses of territory embracing Spain, France and Ireland.

The prevalence among these numismatic relics of the well authenticated coin types of Philip II of Macedon and his son Alexander the Great, on many of which it has been sought to convert the chariot wheel of the Macedonian Stater into a Sun-wheel and assimilate the Rhodian rose and other self evident Greek coin types to Druidical symbolism, would seem to indicate that these people either flourished contemporaneously with the Macedonian conqueror or were (perhaps both) a race which fled before the advance of his arms from some more central habitat, perhaps the Galatia of Asia Minor which gave birth to the Apostle Paul.

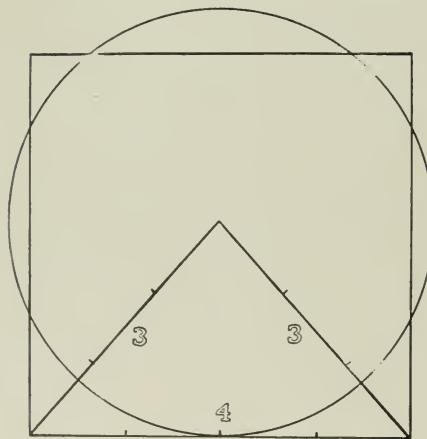
*See figure on page 36.

WHAT THE SWASTIKA REALLY IS.

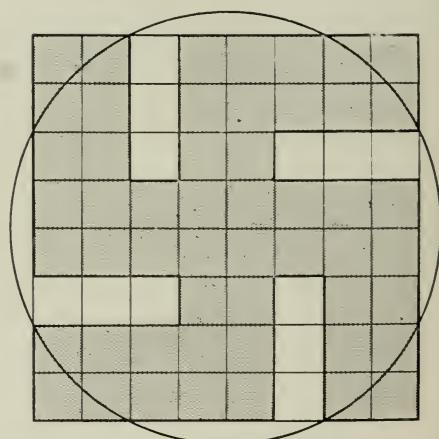
It is astonishing how near humanity has come, again and again, to the real secret of the Swastika, without crossing the line which exists between conjecture and certainty. The Swastika is all that it has been deemed to be and something more. Its symbolic associations with solar motion have been too remarkable not to have placed it in the category of solar symbols, but it has remained for us to indicate its true character and a fresh array of considerations which show it to be far more wonderful than anything so far surmised.

No one can fail to recognize its numerical value as a calendrical symbol suggestive of the revolution of periods of time in the blocking out on our system of numerical squares of a figure of **four seasons, twelve months and fifty-two weeks**.

We have entered, in our observations concerning the "Forty-seventh problem of Euclid" and its far reaching bearings upon the various geometrical formulae having to do with the Squaring of the Circle and also determined the reasons which led the ancients to divide the cube of "Four" (64) into a Solar 36 and a Lunar 28.



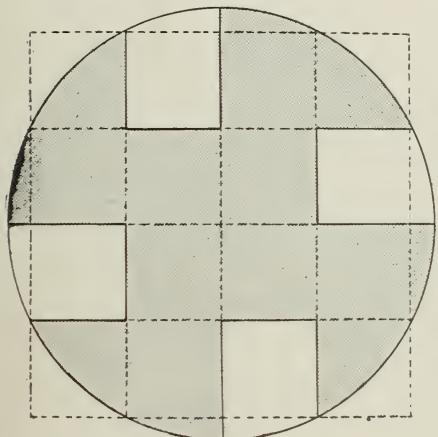
The Squared Circle of Equal Areas.



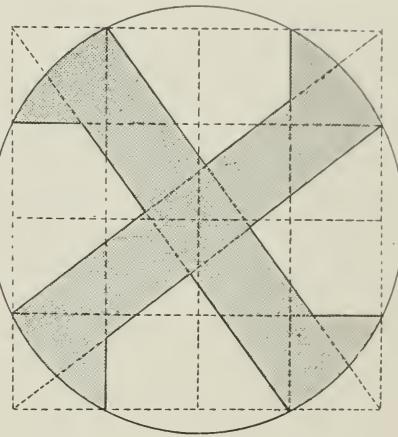
The Circle laid directly on the Square to indicate the function of the Swastika

Having ascertained the relative proportions of our Circle of equal area to our Square of "Sixty-four", blocking the latter

out into a Swastika expressing a year of Fifty-two weeks and supposing it to be endowed with rotary motion, we see that as it turns, the inner angles of the arms precisely trace the Circle, so that the Swastika becomes a most realistic image of the great Cabalistic secret, the Squaring of the Circle by the Heavenly bodies in their annual revolution.



Form of Swastika found among North American Indians. The so-called Jain Swastika of Asiatic India is of similar development.



Ancient form of Swastika from India. Forms part of the emblem of the modern Theosophists. May be reversed.

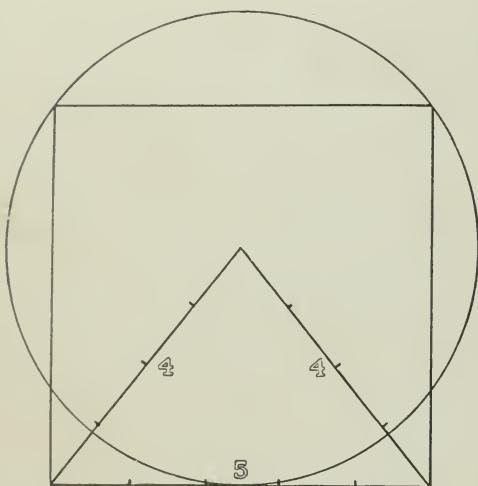
CIRCLE SQUARING SWASTIKAS EXPLAINED.



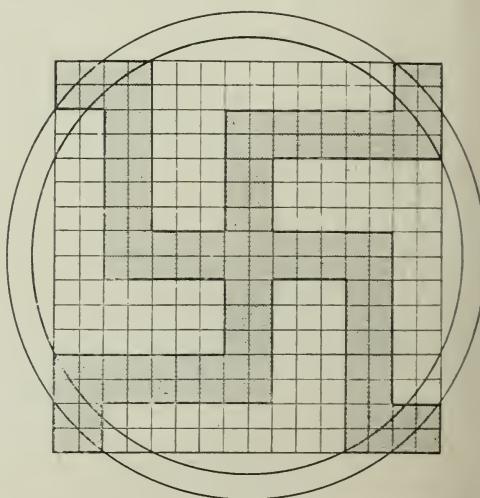
Chinese Silver Yuan of the Taiwan Rebels of Formosa showing double Swastikas and the 3-4 and 12-16 proportions by ingeniously grouped dots.

The Asiatic form of Swastika, which is double jointed, proves to be so constructed that while the inner angle is inscribing the Circle of equal area, one of the outer ones is tracing that

of equal perimeter or within a small fraction of it. A very little reflection will show that while the fundamental idea of the Swastika starts with the broken "Ilu" square, that it may be seen in the "Male principle" "Nine" of the Euclid problem, where even at that low stage of development it serves to connect the



The Squared Circle of Equal Perimeter
(Approximate).

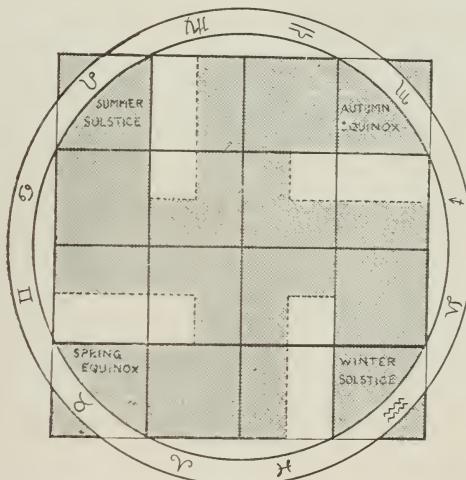


The same overlaying Square so as to show
relation of Oriental Swastika to both Cir-
cles and relative proportion of each to the
other.

Sun with the creative power. The space between the two circles, much used by the devotees of Eastern religions and philosophical cults to express the realm of "Chaos" existent between Heaven and the Universe, became in the West the Zodiacal Circle, receiving the figures from the corresponding divisions of the earlier Zodiacal Square. This arrangement at once confers upon the Swastika the character of a symbol of the Four Seasons, a device which causes the **second** Zodiacal sign, **Taurus** to fall to a corner place. Now we well know from the general position that this lower left hand corner must correspond with the early part of the year, so if we are to determine the arms of the Swastika, as the Equinoctial and Solstitial points, we will see that a still deeper significance is intended; nothing more nor less than that great cyclical revolution of the whole Universe, which, at intervals of thousands of years apart, carries the beginnings of the Equinoxes and Solstices, slowly from a position of the Sun in one sign of the Zodiac to one in another. Univer-

sal chronology and the length of time which separates us from the beginning of the world, was reckoned by the ancients on the assumption that when God created the Universe, He started the great pendulum of Time swinging, with the Sun in the sign of **Aries**. Hence the great esoteric connection of Ram and Lamb with various religions.

In the course of several milleniums, the Spring Equinoctial arm of the great cosmogonic Swastika had swung around to the sign of **Taurus**, the Bull, and this is the main evidence that the great geometrical revelation took place at some time during the "Tauric" period, when Circle squaring, the Zodiac and the Swastika, all coincided as we see them in the following figure.



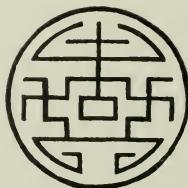
The Swastika and the Zodiacal Circle.

The Hon. E. M. Plunkett (Ancient Calendars and Constellations) says with regard to this subject—"The beginning of the Medean year was fixed to the season of the **Spring Equinox**, and remaining true to that season, followed no star mark. The great importance, however, of Tauric symbolism in Medean art, seems to point to the fact, that when the equinoctial year was first established, THE SPRING EQUINOCTIAL POINT WAS IN THE CONSTELLATION TAURUS.

Astronomy teaches us, that was the case, speaking in round numbers, from 2,000 to 4,000 B. C."

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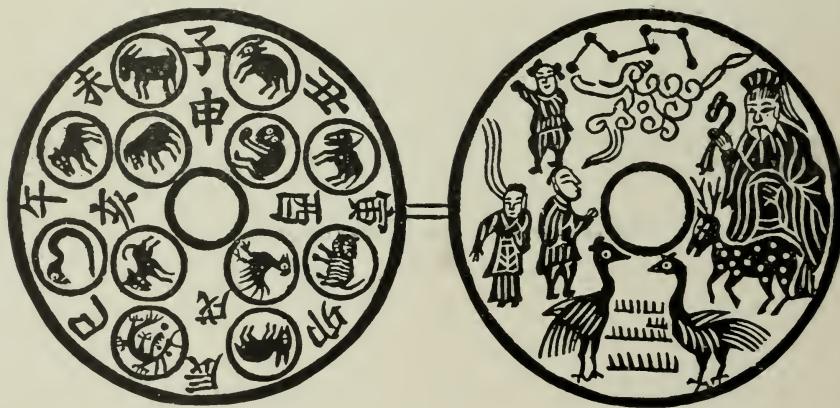
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