

The Open Court

A MONTHLY MAGAZINE

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

Editor: DR. PAUL CARUS.

Associates:

{ E. C. HEGELER.
MARY CARUS.

VOL. XXI. (No. 4.) APRIL, 1907.

NO. 611.

CONTENTS:

	PAGE
<i>Frontispiece.</i> Eros on the Ship of Life.	
<i>Did Jesus Predict His Resurrection?</i> ROBERT M. DODGE.	193
<i>The Resurrection and Immortality.</i> EDITOR.	198
<i>The Buddhist Conception of Death.</i> RT. REV. SOYEN SHAKU.	202
<i>The History of Spectacles.</i> (Illustrated.) CARL BARCK, A.M., M.D.	206
<i>Goethe's Nature Philosophy.</i> EDITOR.	227
<i>Questions From the Pew: The Bethlehem Prophecy.</i> FRANKLIN N. JEWETT.	238
<i>In the Mazes of Mathematics: Geometric Puzzles.</i> WM. F. WHITE, PH. D..	241
<i>Eros on the Ship of Life.</i> (Illustrated.) EDITOR.	245
<i>The Nobler Lesson.</i> (Poem.) DON MARQUIS.	249
<i>Ethical Instruction.</i> (With Editorial Comment.) CYRUS H. ESHLEMAN...	249
<i>Book Reviews and Notes.</i>	251

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THE MONIST

A QUARTERLY MAGAZINE

Devoted to the Philosophy of Science

DR. PAUL CARUS
EDITOR



ASSOCIATES } E. C. HEGELER
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"The Monist" also Discusses the Fundamental Problems of Philosophy in their Relations to all the Practical Religious, Ethical, and Sociological Questions of the day.

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EROS ON THE SHIP OF LIFE.

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The Carpaneto Monument in the Campo Santo in Genoa.

Frontispiece to *The Open Court*.

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DID JESUS PREDICT HIS RESURRECTION?

BY ROBERT M. DODGE.

TO one who accepts the Gospel narratives as accurate, the answer to this question is perfectly obvious. The first three gospels contain such predictions of Jesus, not in vague terms of speech, but in definite words. In one passage after another distinct statements of his resurrection in three days are joined to predictions of his sufferings and death.

But it is evident that such statements may be questioned by the student of the Gospels; they may be considered, not the genuine words of Jesus, but the beliefs of later years attributed to him by the writers. Perhaps it is impossible to decide with certainty which view is correct. It may seem, indeed, unimportant. The question appears to be merely speculative, and as such unworthy of especial study. Yet one fact is sure: it is impossible that both the affirmative and the negative answer should be true. Even if we can not decide which answer is the more probable, it may be of interest to notice some suggestions and conclusions concerning the resurrection to which the one or the other alternative leads.

1. If we accept the Gospel records as on the whole reliable, then it is evident that at the death of Jesus there was every reason for a belief among his followers in his rising from the dead after a brief interval. So widely known were the predictions of such an event that the Jews were led to ask for a Roman guard to watch the tomb. And this means that the very air was electric with possibilities; that conditions were most favorable to the outburst of a new faith such as did result, if only the least incident should occur to give to that faith its initial impulse. To state, as writers on the subject have often done, that visions of the risen Master were un-

likely and even impossible because the disciples were left at Jesus's death with utterly crushed hopes and without the least thought of a resurrection, is to deny the accuracy of the Gospel narratives.

2. We may, however, choose the other alternative, and say that later writers attributed to Jesus words regarding his resurrection which he never spoke; that at least he never stated definitely that after his death he would rise in three days. Then this is sure: that the body of Jesus was laid in an unguarded tomb; that the story of the Roman soldiers appointed to keep watch over the sepulchre is a legend, a tale which grew up in later years and was repeated by one and another until it was generally believed. Unless there were at least rumors of a predicted resurrection all reason for a guard of soldiers was lacking. So careful a commentator as Meyer believes this was the case; he concludes that the record of the guard of soldiers lacks historical basis. (*Meyer's Commentary on the New Testament*: Matt. xxvii. 65.)

If this is true, then the tomb was accessible to any one; then the body could have been removed by either friend or foe who might have reason for such an action.

To follow out these alternatives with suggestions of what may have taken place is, of course, mere speculation. Yet speculation is not always a useless thing. It may be worth while to trace in the barest outline some of the possible conditions or events which could have given impulse, under the one or under the other of the above alternatives, to faith in the bodily resurrection of Jesus. The possibilities are many; only a few of them need be suggested. It is evident that in either case the event most likely to arouse so great an excitement would be the disappearance of the body laid in the tomb by Joseph of Arimathea. How was that possible?

Returning in our thoughts to the first alternative, we accept the idea of a tomb guarded by Roman soldiers. Most unlikely of all suggestions that those men would prove false to their trust! Little probability indeed that they would through neglect let the disciples or any others steal the body! The thought is next to impossible. And if that is so, what could have taken place except such a supernatural event as the Gospels relate?

We are not looking for the most probable thing at present; we are concerned with possibilities; and however unlikely at first thought the suggestion may seem, who will deny the possibility that the body was removed secretly by the guard itself at the order of Pilate? We need not search far for sufficient motives for such an order. Pilate had been deeply angered at the Jews because of their

attitude through the entire trial of Jesus; he had been forced to a decision against his own conviction and desire. His irritation had been only deepened by the request for a guard over the tomb. He had thought the disagreeable matter ended at last; was it to be continued even after the death of the innocent victim? If so, the best thing would be to remove the body to some secret resting place where it could no longer be a cause of contention or even the possible occasion of disturbance and riot. A Roman governor would hardly hesitate to take such action if it seemed necessary. And another motive might easily have been in his mind. He had heard rumors of the resurrection; it was because of these rumors that he had granted the guard. He had replied to the request of the Jews with the brusque words, "Take a guard. Make the sepulchre as safe as you can." Is it possible that those last words, "as safe as you can," or "as you know how," contain a hidden irony? To have the body disappear in spite of the elaborate precautions of the Jews was a means of revenge which would appeal to his nature. He was not only angry at the Jewish leaders; he despised them as bigoted and superstitious men. He would do much to annoy and frighten them. His contempt for them, his ironical spirit, had shown itself in the inscription placed over the cross, "the King of the Jews." That same spirit of contempt would be an additional motive for the removal of the body; if that should arouse the superstitious fears of the Jews, so much the better. Little could he realize to what the act might lead; perhaps he never knew, for he was then near the end of his term of office, and not far from the end of his life.

Or we may take the other alternative as the more likely. Then we accept the idea of an unguarded tomb, accessible to any one. But who would remove the body? It is evident that the familiar statement is true, that the disciples were not deceivers; they were not the men to practice a deliberate fraud. The thought is impossible. But, we are told, the enemies of the disciples could not have committed the act, for in that case they would have produced the body as evidence against the resurrection. Who then could have taken it? What but a miracle can explain the empty tomb?

Yet the possibilities are many. The suggestion already made is perhaps less likely, and yet not impossible, that Pilate himself had the body removed to avoid all further disturbance. But there are other possibilities. There is a suggestion in the Gospel according to John, that the tomb in which the body was laid was meant only as a temporary place for it. The place was chosen because "it was nigh at hand," and time was short before the Sabbath. (John xix. 41-42.)

Workmen may have removed the body to another place immediately after the Sabbath, as Mary thought it was likely at first, (John. xx. 15) and the empty tomb would then give rise to the report of a resurrection. Or suppose that the very men who brought about the death of Jesus took a farther step in the depth of their rage. Sometimes passion is only intensified by success in accomplishing its purpose. The fury of those who shouted "Crucify him" may have been unsatisfied with that result. The honorable burial of the body, contrary to the regular custom in the case of criminals, and so contrary to their expectation, may have aroused these men to fresh anger. Was it beyond their depravity to pay some poor wretches to take the body out from its place of honor and convey it to a place of dishonor? The act once done could not easily be undone. The body might have been lost beyond recovery; or if these men had found and produced it they would have confessed their guilt in the matter and exposed themselves to punishment. There is something repulsive in the whole thought, yet there is also something not inappropriate. What more fitting culmination of all the indignities heaped upon a pure and innocent victim than the last indignity to the lifeless body? What action more in accord with the words of the old prophet, "They made his grave with the wicked"? (Is. liii. 9.) And so far as what is essential in Christian faith is concerned, what matters it what became of the physical form? "Flesh and blood doth not inherit the kingdom of God"; "It is the spirit that quickeneth, the flesh profiteth nothing." Such truths the Church needs to learn and emphasize. And such truths would be emphasized only the more strongly under this supposition.

To the writer it seems most likely that Jesus did predict his resurrection, not indeed in the clear manner stated in the Gospels, but in more vague and poetical terms. He saw clearly the approach of opposition and persecution; he saw that his own death was not unlikely as a result. He spoke of these things calmly and frankly. And what was more natural than that he should follow these statements with the comforting thought, couched in the picturesque language of the Orient which Jesus knew and loved so well, that he would come back to them; that he would live again after his death. He may have quoted the words of Hosea, "After two days will He revive us: on the third day He will raise us up, and we shall live before Him." (Hosea vi. 2.) Such statements were not understood by the disciples; they were half forgotten, and yet kept dimly in the memory, like many other utterances of the Master. Such memories were revived by the events following the death of Jesus,

whatever those exact events may have been. Out of them grew the tales and hopes and visions such as the Gospels record, full of inconsistencies and contradictions, yet sincerely believed and earnestly proclaimed. From them arose the strong faith in the bodily resurrection of Jesus, a faith strengthened by opposition. And so arose and spread like a fire the faith in the risen Lord.

And then it was all a mistake? Then all is false, and Easter is a deception? No: for what is outwardly false may cover and preserve an inward truth. That truth within may be far greater than the false form without. And the faith of the disciples was essentially true, not false. Their Master did rise from the dead. He still lives: more than ever is his life known and felt. He rose from the dead in just the way that he possibly predicted, though his disciples did not understand him. And perhaps—no, probably—the form which that faith took, false as it was, was the very form necessary to preserve that inward truth in ages of crude thought. It has been said that the worship of the Virgin Mary, false as it seems to all Protestants, was of value in the Middle Ages. It preserved a respect for womanhood in those rude times. It concealed an essential truth within. And so, only in far greater measure, has belief in the bodily resurrection of Jesus preserved truth. It cherished a faith which otherwise might have perished, faith in a living Christ, faith in the life eternal.

THE RESURRECTION AND IMMORTALITY.

BY THE EDITOR.

EASTER is the spring festival and has been celebrated among all nations since the dawn of civilization. The name Easter is of pagan origin and refers to the goddess Ostara, the Teutonic goddess of the East, who is credited with the rejuvenescence of nature. Among the ancient Orientals the Babylonians, Syrians, Phœnicians, and others, the Easter festival was a rejoicing at the resurrection of Tammuz, Adonis or Baal, the god of vegetation, whose death had been lamented in a kind of pagan Good Friday celebration. The Christian Easter was naturally attached to the Hebrew passover which most probably was also originally a spring festival, but under the influence of the Deuteronomist priests was later changed into a memorial of the Exodus from Egypt.

In many places the pagan celebration continued in its external forms and simply replaced the pagan Adonis by the Christian Jesus, the natural background and the rejoicing at the resuscitated life remaining the same in either case,—it was the god that died and was again called back to new life.

For an appreciation of the Christian doctrine of resurrection we must consider the character and life interests of the primitive Christians. Their numbers were recruited from the poorer classes and were mostly uneducated. Their interest in an after-life consisted mainly in the assurance that they would be resurrected in their bodily identity, in consequence of which their Easter message naturally took the turn that Jesus had risen bodily from the grave, and this belief has been incorporated more and more into the Gospel stories. It is noteworthy that nothing is stated with more contradiction and obscurity than the resurrection of Jesus. The original report of the oldest and most authentic Gospel (which is Mark) ends with the statement that the grave was empty. We may be assured that the disciples believed in the resurrection and that they

had visions of the risen Christ, but here as in many other respects the Fourth Gospel flatly contradicts the account of Matthew and Mark. According to St. John and Luke, Christ appears to his disciples in Jerusalem; according to Matthew, in Galilee, and the conclusion of Mark is lost. It has been replaced by a few verses (Mark xvi. 9-20) which contain the parting command of Jesus.

Higher critics have discovered a gradual increase of the corporeal and sensuous element intended to prove the bodily identity of the risen Christ with the crucified Saviour. While the original report only knows of the empty grave, later on the risen Christ denies that he is a spirit. He says (Luke xxiv. 38-39):

“Why are ye troubled? and why do thoughts arise in your hearts? Behold my hands and my feet, that it is I myself: handle me, and see; for a spirit hath not flesh and bones, as ye see me have.”

The vision of St. Paul, too, is reported first as having been a mere vision which affected only the sense of sight. In another report, however, we read that Christ spoke to Paul, and so it is assumed that the sense of hearing was also affected. We have here apparently a modification of the story to answer the questions of doubters that Paul's experience was a mere hallucination, and we find the last stage carried to such a materialistic conception of the resurrection that Jesus to convince the unbelievers of his bodily existence, requests some meat, “And they gave him a piece of a broiled fish, and of an honeycomb. And he took it, and did eat it before them.”

The attitude of critical readers toward these accounts has been different. Some who accept them as inspired, believe implicitly in a bodily resurrection; others make out with some show of plausibility that Christ did not die while on the cross, and was revived. They suggest that he might have lived in seclusion for some time and then died a peaceful death among his intimate friends. Omitting the solution after the fashion of the Gordian knot which would relegate all the reports of the Gospels into the realm of fable, we will mention a third interpretation of the Gospel texts which assumes that the burial of Christ by Joseph of Arimathea was historical and in fact there is nothing incredible in the event itself. Mark states this incident as follows (xv, 42-47):

“And now when the even was come, because it was the preparation, that is, the day before the sabbath, Joseph of Arimathea, an honourable counsellor, which also waited for the kingdom of God, came, and went in boldly to Pilate, and craved the body of Jesus. And Pilate marvelled if he were already dead: and calling unto him

the centurion, he asked him whether he had been any while dead. And when he knew it of the centurion, he gave the body to Joseph. And he bought fine linen, and took him down, and wrapped him in the linen, and laid him in a sepulchre which was hewn out of a rock, and rolled a stone unto the door of the sepulchre. And Mary Magdalene and Mary the mother of Joses beheld where he was laid."

The same account has been incorporated almost literally in Matthew and John, and in the latter there is an additional mention of Nicodemus. Joseph of Arimathea is praised in the account as a "good man and a just," and it is further said that he was secretly a disciple of Jesus which suggests that he was not openly identified with the Nazarenes. He is never mentioned before nor after, and we may fairly well assume that this is the only relation that he had with the disciples, for otherwise considering his wealth and the prominence of his position he would certainly have played an important part in the congregation at Jerusalem.

Taking the standpoint of impartial critique without accepting miracles and without denying that the Gospel stories go back to original accounts and still reflect events that actually took place, we would naturally ask, what interest can a well-to-do man of official standing among the Jews have taken in the body of a crucified man with whom most likely he had very little in common? and the answer that suggests itself (as a German scholar, Paul Schwartzkopff has proposed) is not far to seek. According to the common belief of the age, bodies of executed men were endowed with magic power. We know that the nails used for crucifixion, hang-ropes, and other articles that had done service in an execution were deemed to possess miraculous powers, and it stands to reason that the body of a man who in the opinion of his followers was reputed to have performed miracles himself, should be credited more than others with supernatural qualities. It would be quite in keeping with the notions of the time that Joseph of Arimathea wanted the body of the crucified Jesus for the purpose of having his own tomb sanctified by the great thaumaturge, and he considered it a protection if his own body might rest by the side of the Nazarene's. Accordingly it was to his interest to secure possession of the body for himself alone and remove it also from any interference from the followers of Jesus. If this assumption be true, the next step that Joseph would take could only be the removal of the body to a place within his own control and unknown to others especially the followers of Jesus.

The story of the guards bears all the symptoms of a late inser-

tion invented to refute the idea that the body might have been removed. It is scarcely accepted as genuine or even ancient by any one of the critics and stands on the same level with the account of the resurrection itself which is reported most dramatically by Matthew in chapter xxviii, as having taken place in the presence of Mary Magdalene and the other Mary. We read (xxviii. 2-7):

“And, behold, there was a great earthquake: for the angel of the Lord descended from heaven, and came and rolled back the stone from the door, and sat upon it. His countenance was like lightning, and his raiment white as snow: And for fear of him the keepers did shake, and became as dead men. And the angel answered and said to the women, Fear not ye: for I know that ye seek Jesus, which was crucified. He is not here: for he is risen, as he said. Come, see the place where the Lord lay. And go quickly, and tell his disciples that he is risen from the dead; and, behold, he goeth before you into Galilee; there shall ye see him: lo, I have told you.”

The women saw the angel and heard his words, but nothing is said that they themselves saw Christ rise. The doctrine of the bodily resurrection has been held with great tenacity by all Christians not excluding Protestants, but it has of late been more and more declared to be unessential, and it is doubtful whether any leading Protestant theologian would commit himself to regard it as an essential article of faith. With the change of our views concerning immortality which from a belief in the revival of the body has more and more come to be a belief in the immortality of the soul, we have also grown more accustomed to the account of Christ's resurrection as a legend in which the current notion of life after death among the early Christians found its typical embodiment. The celebration of Easter, however, remains and will remain so long as the return of spring indicates the revival of nature and the return of new life, new verdure, new joy, new blossoms and the promise of a rich harvest in the summer.

THE BUDDHIST CONCEPTION OF DEATH.¹

BY THE RIGHT REV. SOYEN SHAKU,
Lord Abbot of Engakuji and Kenchoji, Kamakura, Japan.

OCcidental scholars frequently represent the ideal of Buddhism as an escape from life and a passing into eternal stillness; but this is an error, for Buddhists do not shun struggle and warfare. If a cause is worthy they will not hesitate to lay down their lives for it, and they will do so again and again in this as well as in future incarnations.

The idea of future incarnations may startle the Western reader; but we Buddhists believe that men appear upon this earth over and again and will not rest until they have gained the end, that is, until they have attained their ideal of life; for lives continue to prevail. It is a feature peculiar to our faith which appeals most powerfully to the Japanese imagination, that man's life is not limited to this existence only, and that if he thinks, feels, and acts truthfully, nobly, virtuously, unselfishly, he will live forever in these thoughts, sentiments, and works; for anything good, beautiful and true is in accordance with the reason of existence, and is destined to have a life eternal. This is the Buddhist conception of immortality.

When during the war of independence, an American was caught by the British soldiers and condemned to be hanged as a spy, he exclaimed: "It is a pity that I have only one life to sacrifice for my country." Pity, indeed, it was that Nathan Hale did not know the truth that, from the example set, there have arisen many patriotic minds inspired with the same sentiment. He did not die, he did not vanish into an unknown region; but he is living a life eternal, he is being born generation after generation, not only in his own country, but also in my country, and in other countries, and in fact everywhere all over the three thousand worlds.

¹ This article from the pen of a Buddhist prelate is of unusual value in the literature of comparative religion, and we take pleasure in presenting it to our readers. It has been translated from the Japanese by Daisetz Teitaro Suzuki and is reprinted from *The Monist* of January, 1907.—ED.

In this respect Masashigé, a Buddhist general still worshiped in Japan as a type of loyalty, had a decided advantage over Christian heroes. He lived about six hundred years ago, and his virtues were not fully appreciated during his life; but when he died he imprinted his immortal soul on the pages of Japanese history. When the Emperor sent him once against the invading army which greatly outnumbered his forces and was led by a very able general, Masashigé had his own plan of making a stand against odds; but some ignorant court favorite succeeded in having the hero's proposition set aside, and by his sovereign's command he was thereby compelled to fight a losing battle. There was nothing for him to do but to check the advance of the enemy as long as possible, so that the Emperor could find time enough to make a safe escape from the capital. Having fought most gallantly, and borne bravely the furious attacks of the enemy, he was finally outnumbered; and when, covered with wounds, he saw that further resistance was useless, he gathered his commanding officers around him, bade them farewell, and made this solemn utterance: "I pray that I be born seven times on this earth and crush all the enemies of our Imperial House." Thereupon he drew his dagger to put an end to his present existence, and his officers did the same.

This outlook into future incarnations, which seems to possess no meaning for Christians, makes a very profound impression upon us Buddhists. It seems to be pregnant with a great religious significance. It implies a continuance of our personal existence in its individuality. Masashigé meant that his work should be continued by worshipers or imitators who would be inspired by his noble example. And most certainly did he find a legion of successors in the loyal and patriotic soldiers and sailors who have died in former wars and also in this recent war with Russia. They all are incarnations of our most beloved hero-general Masashigé. For he was not leading in spirit all these soldiers to the realization of the work he once planned? Can we say that the hero breathed his last when he fought his losing battle some six hundred years ago, while his soul is still living in the heart of every patriotic and loyal citizen of Japan?

When the late commander Hirose went to blockade the entrance of Port Arthur, he was inspired by the same sentiment which he expressed in his swan song. He was conscious of the immortality of the work to which his incarnation was devoted, and this is expressed in the verse that was his last utterance:

"Yea, seven lives for my loved land!
I gladly die at its command.

My heart is firm; I must prevail;
I smile while calmly forth I sail."

Has not Masashigé's soul found a true expression in the consciousness of this brave patriot? For otherwise he could not have enjoyed that serenity which characterized him in the moment of danger and in the face of death.

Some have explained the bold courage of the Japanese soldier as fatalism; but clear thinkers will not see in it a passive resignation, but rather a hopeful consummation of existence in men who are convinced of the final triumph of good over evil, and the calm assurance that the individual lives as long as he identifies himself with a noble thought, worthy work, exalted sentiment, uplifting impulse, in short, with anything that cements the brotherly union of all mankind. Those who are accustomed to look at things from the individualistic point of view may not understand very clearly what I endeavor to explain; but the fact is that however tenaciously we may cling to our individual existences, we are utterly helpless when that power which comprehends everything stands against our selfish desires. There is nothing left to us but to submit meekly to its eternal ordinance and to let it work out its own purpose regardless of ourselves. When Schleiermacher defines religion as a feeling of absolute dependence, he has rightly laid his hand on that indefinable and unclear longing which lurks in the dark recesses of every soul—a vague feeling which intuitively becomes aware of the weakness of the individual as such, but which possesses an immense strength as soon as the individual identifies himself with a supra-individual power. This is evidently neither fatalistic nor fantastic.

All sincere Buddhists are firmly convinced of the truth of non-egoism, and they do not think that the value of an individual as such is ultimate. On account of this, they are not disturbed at the moment of death; they calmly meet the end of life and let the world-destiny accomplish the purpose it may have in view. This emancipation from the individualistic limitations seems to have largely contributed to the perfection of the Japanese military culture known as *Bushido*. Old Japanese soldiers, nobles, and men of letters, therefore, displayed an almost gay cheerfulness even in the most critical moments of life, and they faced death unflinchingly, sometimes even in mirth. This buoyancy in which death is held in contempt stands in a marked contrast to the pious, prayerful attitude of the Christians, who look forward to their dying moments in a spirit of contrite penitence.

Ota Dokwan, a great Japanese statesman and general of some four hundred years ago, was assassinated in his own castle by a

band of spies sent by an enemy. They found him unarmed and stabbed him; and when he fell to the ground, the assassins before finishing their cowardly work asked what the general had to say before he bade farewell to this world; whereupon Dokwan calmly answered:

"To quit life which is sweet to me
Would truly a great hardship be,
Had I not come to the conclusion
That thought of self is an illusion."

Finding peace of heart in this solution of life, Buddhists do not fear death; whatever may be their social positions, they are ever ready to lay down their lives for a higher cause which demands the sacrifice. They know that their present individual existences will come to an end, but they know at the same time that spiritually they live forever; and this higher conception of life together with a nobler interpretation of death has been contributed to Japanese culture by Buddhism.

THE HISTORY OF SPECTACLES.*

BY CARL BARCK, A. M., M. D.

A SMALL article, and yet how important for mankind and its progress! Without it thousands, or rather millions, of elderly people would no longer be able to enjoy reading, and just as many millions of near-sighted individuals would be deprived throughout their lifetime of the benefit of distinct vision. But we are now so



A TUNGUSIAN WOMAN.
After a drawing by Vereschagin.



A CHINESE WITH SPECTACLES.
From Davis, *The Chinese* (1836).

accustomed to the general use of this auxiliary, that we need reminding that for centuries the combined labor of industrial art and of science has been necessary to bring the spectacles, and their scientific selection, to the present state of perfection.

At the very outset the difficult question arises, whether the

* This essay was originally delivered as a lecture before the Academy of Science, St. Louis. The illustrations, with few exceptions, have been collected by Dr. Emil Bock, an Austrian ophthalmologist, and published in a monograph entitled *Die Brille und ihre Geschichte*, Vienna, 1903.

invention of glasses should be credited to the Mongolian or the Caucasian race. It is possible, that the Chinese used glasses at a much earlier period than the nations of western Europe. While those which are in use among them at the present time are similar to ours, and mostly imported from Europe, there exist some old pictures which show Chinese reading with glasses of a different pattern. In one of these they are kept in position by a band, which passes around the head below the ears and the occiput. In another they are held by two cords which pass over the ears and hang down to the breast; they are kept taut by weights attached to their ends. The lenses are round and very large. These spectacles are also mentioned in the narratives of early travelers, and it is stated by them that the lenses were made out of a slightly yellowish-brown stone, called "schachi" or teastone, most probably a kind of topaz. In some



MAN FROM THE ISLAND OF TSU-MING.

From Ferraro, *Il costume antico e moderno* (Milan, 1817).

collections, a few of such very old Chinese spectacles are still preserved. But as more exact data, especially in literature, are wanting, this question, whether the Chinese made the discovery independently of and prior to the nations of western Eurasia, remains an open one, and we will turn our attention to the latter.

Amongst the ruins of old Nineveh an interesting find was made by Sir Henry Layard,* namely a lens of rock crystal. This oldest lens in existence is plano-convex, $1\frac{1}{2}$ inch in diameter, with a focus of $4\frac{1}{2}$ inches. It is fairly well polished. But as to its use, and whether this one specimen is indicative of a more general employment of glasses, we are in the dark. Even if the old Assyrians and Babylonians did possess this art, it became lost afterwards. For to the ancient Hebrews and Egyptians spectacles were unknown.

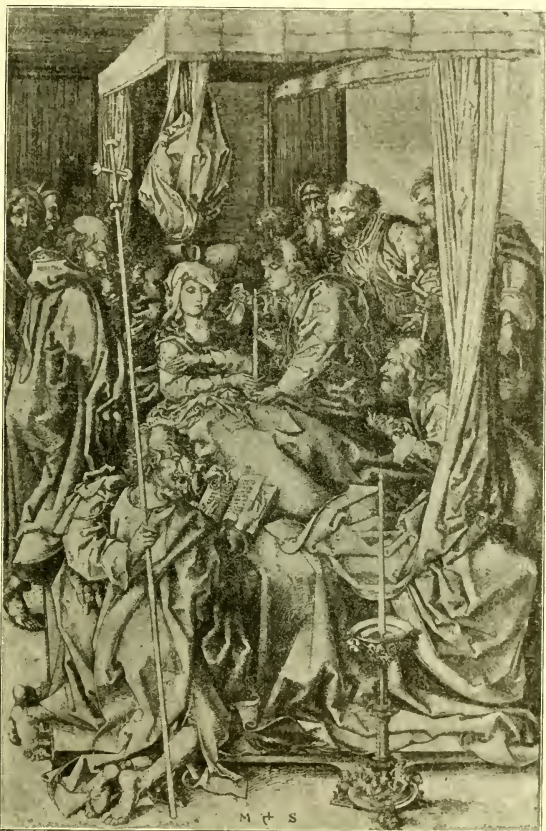
* *Discoveries Among the Ruins of Nineveh and Babylon*, 1853, p. 197.



THE INVESTITURE OF FRIEDRICH OF NUREMBERG WITH THE
BRANDENBURG ELECTORATE, APRIL 17, 1417.

From a colored picture of a contemporary manuscript by Ulrich
Richenthal, now in the University Library at Prague.

The Greeks were likewise unacquainted with them. In the four treatises on "optics" by Euclid, Heron, Ptolemæus and Damianus,



THE DEATH OF MARY.

After an engraving by Martin Schongauer (1450-1491). Two men kneel at the bedside, one of whom, apparently nearsighted, seems to be reading through a pair of glasses held directly against the page of the book in the other man's hands.

which have come down to us, not the least mention is made of them. They knew only that by means of the so-called "shoemaker's globe,"

a glass-sphere filled with water, the rays of the sun could be collected and combustible bodies ignited. Aristophanes, in his comedy "The Clouds" alludes to this as a well-known fact.

Among the Romans, the "shoemaker's globe" became a regular part of the instrumentarium of physicians, who used it for cauterizing; later on they also observed that small objects became magnified by it. Winkelmann, in his *History of Art* (1776), drew the conclusion from the most minute carving of some of their gems that this could not have been executed had the engravers not possessed magnifying glasses. But his further deduction as to the similarity of these to ours is unwarranted.

The main dispute, however, arose over the interpretation of a passage in Pliny, relating to Nero. The original reads as follows: *Nero princeps gladiatorum pugnas spectabat in smaragdo*, ("The emperor Nero viewed the combats of the gladiators in an emerald"). Some scholars construed this to mean that Nero used an emerald as we do glasses, and concluded even that Nero was near-sighted. But this latter opinion, although it has become fixed in the popular mind, is certainly not true, because Pliny, at another place, makes the direct statement that the eyes of Nero were weak for near objects unless he blinked: *Oculi Neronis, nisi cum conviveret, ad prope admota hebetes*. And Suetonius calls them *caesii et hebetes*—dull and weak. Nero was either far-sighted or astigmatic, but not near-sighted.

The sentence just prior to the first quoted passage, that Nero viewed the combats in an emerald, deals with emeralds in general, and states that they, when large enough, and inclined, reflected the images of objects as mirrors do. The logical relation of these two sentences, and the direct statement *in smaragdo*, "in an emerald," leaves hardly any doubt that Nero used the emerald like a small mirror. Had Pliny wanted to say that the emerald was used like our spectacles, *per smaragdum*, "through an emerald," would have been the phrase. Although Lessing, in the 45th of his "Antiquarian Letters," 1768, discussed this subject at length and refuted the misinterpretation, this has survived not only among the laity but has even found its way into scientific works. As an example of the former I cite the famous dramatized novel by Sienkiewicz, *Quo Vadis*; of the latter, the *History of Ophthalmology*, by A. Hirsch, 1877.

There being no other reference to glasses in the entire Latin literature, medical as well as non-medical, we may safely state that the use of spectacles was just as unknown to the Romans as to the



DETAIL FROM VAN EYCK'S MADONNA WITH SAINTS AND DONOR.

From a carbon print of an oil painting on wood by Jan van Eyck at the Academy at Bruges. Between the Virgin and Saint George kneels the donor, Georg van der Pale, holding with the fingers of his right hand a pair of black-bowed glasses.

other ancient nations. Nor is there any mention of them during the first twelve centuries of the Christian era.

At the end of the thirteenth century, however, testimonials to their use begin to appear from different sources and countries. The famous philosopher Roger Bacon speaks of glasses which cause small letters to appear large; this was in 1276, and therefore some authors attributed their invention to him.* In Germany, they are referred to in a collection of minnesänger ballads, in 1280. About 1300, they are fairly well known and used in the Netherlands; Alexander von Humboldt states this especially of Haarlem.



STATUE WITH GLASSES.
15th century. In the Museum at
Vienna.



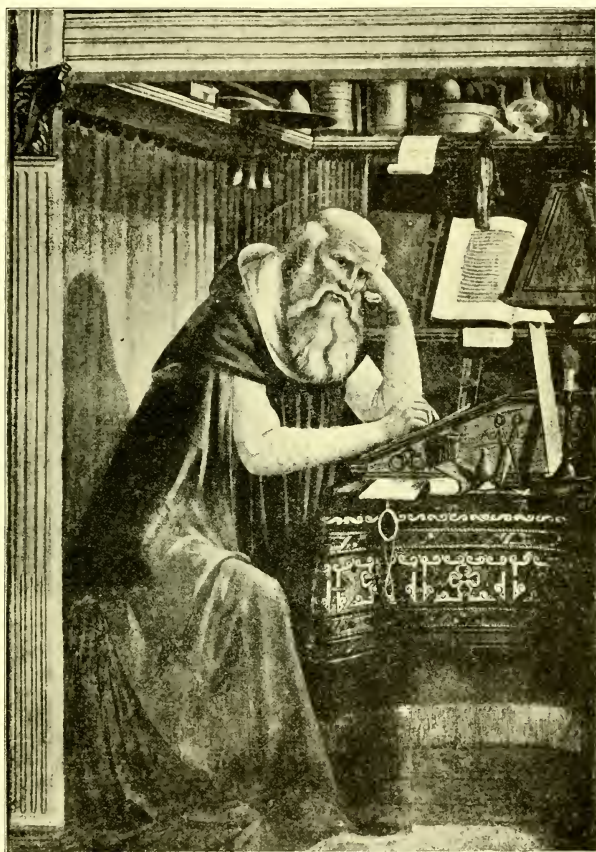
OLD MAN READING.
Woodcut from Bartsch, *Augendienst*
(Dresden, 1583).

But the credit for the discovery belongs most probably to one of two Italians, who were friends or closely acquainted, Salvino d'Armato degli Armati and Alessandro della Spina.

Armato was of noble family and died in 1317. On his tombstone in Florence there is the inscription, "Here lies Salvino d'Armato degli Armati, of Florence, the inventor of spectacles. May God forgive his sins. He died anno Domini 1317." As the year of the discovery, 1285 is assigned.

* E. G. Caesemaker, *Notice historique sur les lunettes et les verres optiques*, 1845.

Spina was a Dominican monk of Pisa. In the monastery archives the year of his death is given as 1313, and the following is



ST. JEROME.

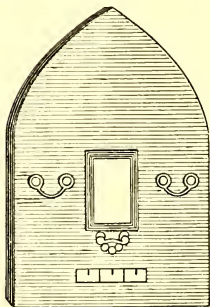
After a mural painting by Ghirlandajo (1449-1494) in the church of All Saints (Ognissanti) at Florence.

related of him: "Brother Alessandro della Spina, a modest and good man, learned to make all industrial products of which he saw

or heard. Spectacles, which were made first by some one else, who did not want to communicate anything about them, were then made by him, and were distributed with a cheerful and benevolent heart."

The dictionary of the Academy of Florence (1729) contains under *occhiali* ("spectacles") the following: "Rivalto, a monk of Pisa, in a sermon delivered on February 23, 1305, made the following statement: 'It is not 20 years since the art of making spectacles, one of the most useful arts on earth, was discovered. I, myself, have seen and conversed with the man who made them first.'" Whether he meant Armati or Spitta, cannot be decided.

In a manuscript of the year 1289, published first by Dr. Redi



COAT OF ARMS OF THE SPECTACLE
MAKERS' GUILD IN FRANCE, 1581. After an engraving by Dupuis (1696-
After Pansier.



A PEDDLER OF SPECTACLES.

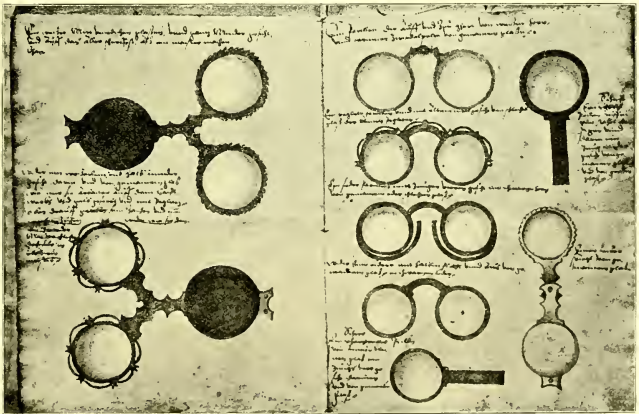
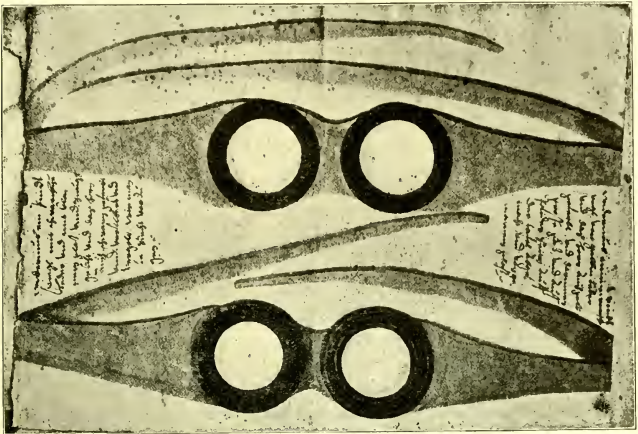
1770.)

in 1648, we find this passage: "I am so debilitated by age that without the glasses known as spectacles, I would no longer be able to read or write. These have lately been invented, much to the benefit of poor old people whose sight has become weak."

All these data are conclusive evidence that the origin of spectacles dates from the end of the thirteenth century, and can be credited to either Armati or Spina, conjointly or independently.

The first physicians to mention them were Gordon, Professor of Medicine in Montpellier, 1305, who stated that, thanks to his excellent remedies, glasses were superfluous; and his contemporary,

Professor Guido, of Avignon, who, after praising his remedies, more modestly remarked that if they did not help, the need of spectacles was indicated.

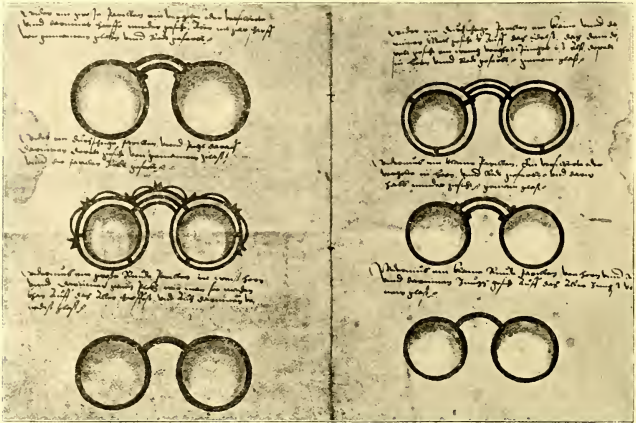


SPECTACLES.

From a manuscript of the year 1600 at the Germanic Museum of Nuremberg

In the fourteenth century the use of glasses spread slowly but regularly in the different countries of Europe, at first among the

higher classes. References to them, in documents as well as pictures, became more and more numerous; but the masses did not take

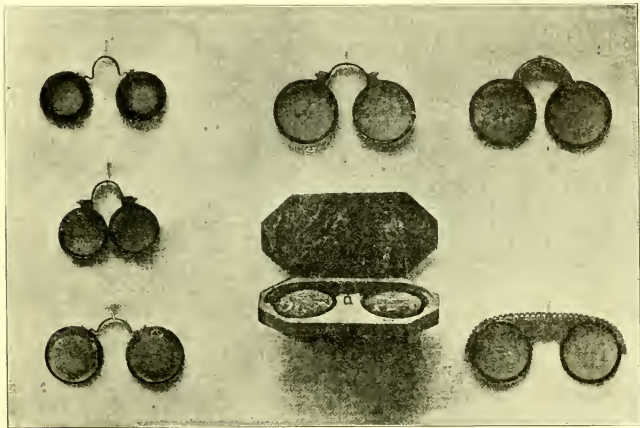


SPECTACLES.

From a manuscript of the year 1600 at the Germanic Museum of Nuremberg. kindly to the innovation. Wearers of spectacles were not only ridiculed, but the glasses, according to the superstition of the times,

were called a device of the devil. The unsightly frame and the high price were also obstacles to their general employment. Even at the end of the sixteenth century, the price of a pair of spectacles was from 100 to 200 kronen, equal to 40 to 75 dollars.

But as everything of real merit has a tendency to survive, they won their way more and more into favor. At the end of the sixteenth century we find regular guilds of spectaclemakers in Italy, France and Germany, with their own coat-of-arms. In the latter country, the chief city for their manufacture was Ratisbon, and the by-laws of its guild, of the year 1600, are still preserved in the famous museum at Nuremberg. Here are also to be found quite



SPECTACLES.

From a manuscript of the year 1600 at the Germanic Museum of Nuremberg.

a number of drawings showing the different styles of the frames at that period. In the earliest designs we possess, the lenses are round and contained in a ring of black horn, about one-half inch wide; the two sides are united by a leather band nearly an inch long, and are kept in position by another leather band passing around the head. Soon afterwards we meet with lorgnettes, and in the beginning of the seventeenth century nose glasses made their appearance. Gradually the frame became more light and elegant; the first metal used was iron, followed by the metals now in vogue, such as steel, nickel, gold, etc. In the latter half of the last century

a number of ingenious devices for holding nose-glasses in position have been invented with which you are all well acquainted.

The earlier lenses were ground out of a smoky-colored stone,



OLD MAN DEMONSTRATING THE EFFECTS OF ANTIDOTES ON A SNAKE.

After an engraving by Curti (1634-1718). From Peters, *Der Arzt und die Heilkunde*.

berillus, from which the German name *Parillen*, later *Brillen* is derived. Soon afterwards they were made of glass, the best of which came from Venice. Spectacle-grinders of Venice, for example M.

Lorenzo, of the firm "The Big Spectacles," were famed throughout Europe.

During the fourteenth and fifteenth centuries only convex



POPE LEO X AND CARDINALS GIUGLIO MEDICI AND ROSSI.

After an oil painting by Raphael in the Pitti Palace at Florence.
The Pope holds a single round concave glass in his left hand.

glasses for reading were known. The concave ones came into use in the beginning of the sixteenth. One of the first to wear them

was Pope Leo X, who was very near-sighted and wore them when hunting. "With them I see better than my companions," are his words. In the Pitti palace, in Florence, hangs his picture, painted by Raphael in 1517, with concave glasses in his hand. The concavity is plainly shown by the reflex.

It had been observed that some weak eyes were not improved by either convex or concave glasses. The reason of this was discovered by the famous scientist Thomas Young to be an unequal curvature of the media, which condition was afterwards termed astigmatism. Young, being astigmatic, studied his own eyes and published his observations in the *Philos. Trans.*, 1801. They created considerable discussion, and later on the astronomer George Airy devised cylindrical glasses for the correction of astigmatism, and had them made for himself by the optician Fuller at Ipswich, 1827. Independently of him, McAllister, of Philadelphia, 1828, and Suscipi of Rome, 1844, also ground cylindrical glasses.

The so-called bifocals, where one frame contains two glasses, the upper for distance and the lower for reading, were invented by Benjamin Franklin. In a letter to Whately of London, 1785, he gives a clear description of them and speaks highly of their convenience. At first these were made just as Franklin made them—and we still occasionally see them—by cutting two lenses of different foci and using one-half of each. Later, the same effect was obtained by cementing an additional oval segment to the lower portion of the distance lens; and the very latest improvement in this direction are the "invisible bifocals," where the former is inserted in a slit in the latter. The optician Theodore Mundorff of New York has succeeded in grinding bifocal lenses (which he calls "Neeranfar") directly out of one piece of glass—a process patented in 1904 and now on the general market.

Periscopic glasses, i. e., those with a concave surface on one side and a convex on the other, and which give a wider field, were recommended as early as 1803 by Wollaston.* But they have come into general use only within the last decades, since the best combination of the two surfaces has been mathematically calculated.

* * *

So far we have dealt with the art of manufacture, and we will now turn our attention to the evolution of the scientific method of selection.

In the beginning and throughout the Middle Ages the selling of glasses, and their adjustment, if we can speak of such, was done

* "On an Improvement in the Form of Spectacle glasses," *Philos. Mag.*...

by "spectacle peddlers." Their appearance was striking, and we find them therefore portrayed in quite a number of pictures. This method has survived even to the present day, as you may see daily at different street corners of every large city. Within the seven-

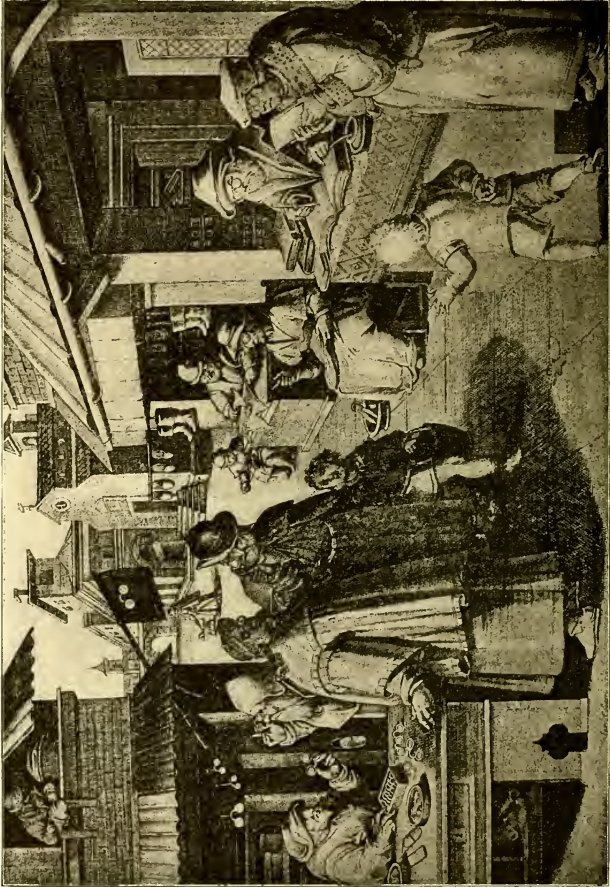


THE SPECTACLE PEDDLER.

From an engraving by W. E. Dietrich in 1741. The woman is testing the power of a glass on the fabric of her apron.

teenth century optical stores were established, first in Germany. Physicians for a long time did not pay much attention to spectacles. They considered it beneath the dignity of their profession to have anything to do with the selection of them, until the middle of the

nineteenth century. Some of them, as for instance Bartisch of Dresden, the most famous oculist of the sixteenth century, even advised against their use.



SPECTACLE DEALERS.

After an engraving by J. Collaert (1520-1567) in the Kupferstichkabinet at Munich. With the exception of the two small boys every person in the picture wears glasses.

The earliest numbering of the lenses was crude and arbitrary. The age for which they were considered most suitable was scratched upon the glass, the different makers and sellers having their own

scales. An attempt to establish rules for numbering and selection was made by Daca de Valdes, of Seville, 1623, whose manuscript is the only one that has come down to us out of the first five centuries. As he was unacquainted with either optics or anatomy of the eye, he deals with the subject in an empirical way. Later on, in the beginning of the eighteenth century, and originating in France, the lenses were designated according to their radius of curvature.

The dawn of the seventeenth century marks a new era in optics, by the epochal work of the astronomer Johannes Kepler. The ancient Greeks believed that during the act of vision something ema-



THE BIBLIOMANIAC.

After a woodcut in Sebastian Brant's *Narrenschiff* (1494).



THE SCHOLAR.

After a woodcut from the *Brösamlein* (1517) attributed to Kaysenberg.

nated from the eye towards the object. To discuss the different subsequent theories here would lead us too far. Kepler demonstrated* that the rays of light come from the object, and are refracted by the cornea and lens of the eye to form an inverted picture of the object on the retina. He had a fairly clear conception of near- and far-sightedness and how they were influenced by glasses. Furthermore, he predicated the necessity of accommodation from our ability to see objects far away as well as close to the eye.

During the next two centuries the knowledge of the anatomy and the physiology of the eye made enormous progress in all their de-

* *Paralipomena ad Vitellionem*, 1604, and *Dioptrice*, 1611.

tails. In spite of this the physicians maintained their reserved attitude, and refused to concern themselves with glasses until the middle of the last century, when a change took place, and the selection of glasses became included in the domain of science.

This was due mainly to the classical works of Donders and Helmholtz, who laid the foundation upon which the superstructure rose by rapid steps.

Donders, of Utrecht* established a strictly mathematical basis, by introducing as the standard the so-called emmetropic eye, an eye



a. Spectacle ducat of Christian IV of Denmark.

b. Spectacle dollar of Brunswick.

c. Freemason's ducat.

COINS BEARING SPECTACLE DESIGNS.†

in which parallel rays are focussed upon the retina. The two other possibilities, where the rays are focussed in front or behind the retina, are respectively the myopic or near-sighted and the hyperopic or far-sighted eye. These are the three kinds of refraction.

Further Donders distinguished between static and dynamic refraction, the latter being the change of the former by the act of accommodation. Accommodation means the faculty of the eye to adjust itself from distant to near objects and vice versa. The

* *On the Anomalies of Accommodation and Refraction of the Eye*, 1864.

† In 1644 gold-bearing ore was discovered in Norway from which some ducats were coined, but many were incredulous and claimed that they were made from old coins. Gold was then found in still another place in Norway, and in 1647 King Christian IV had new ducats made bearing on one side, under a pair of glasses, the words *Vide mira domini* ("Behold the miracles of the Lord"). In the sixteenth century Brunswick had a series of coins which bore on one side a wild man holding a torch in his right hand, and in his left a skull, hour-glass and a pair of spectacles. The letters around are the initials of the rhyme, "*Was Hilft Dem Alten Licht Vnd Brill, Der Sich Selbst Nicht Hilft Vnd Kennen Will*" ("Torch and glasses will not help the old man who will not help and know himself"). The ducat of the freemasons is very rare and bears below a pair of eyeglasses the legend, *Das gantze Geheimnus*, "the whole secret."

mechanism of this function had become quite well understood through the progress of anatomy in the previous century and the physiological researches of Helmholtz. During accommodation for near objects the lens becomes more convex, and this is accomplished by a muscle inside of the eyeball. In estimating the static refraction, the accommodation must be excluded or errors will creep in.

While many people are able to relax their accommodation entirely, others, especially children, are unable to do so. When, therefore, chemistry gave us, in atropin and similar alkaloids, remedies by which we are able to paralyze the muscle of accommodation for a short time, it was a welcome aid. By its means all errors from this source can be avoided.



AN OLD WOMAN ASLEEP OVER HER BOOK.

After an etching by Rembrandt (1606-1669.)

The invention of the ophthalmoscope by Helmholtz in 1851 not only enabled the physician to see the interior of the eye, but also to determine the refraction by exact measurement without reference to the information obtained from the person examined. Various modifications of this method have been evolved since, and at the present day, in every thorough test, the patient's statement is controlled by objective observation.

About thirty years ago a revision of the numbering of lenses took place. In the old system the effect of the lens was the reciprocal value of its radius of curvature, and the calculations had to be

done in fractions. The new, or metric system, takes as its basis the optic value, i. e., the focal distance of the lens. Its standard is a lens with a focus of one meter, the so-called "diopter lens." A lens with a focus of one-half meter, being twice as strong, is called a lens of two diopters, etc. This new nomenclature which uses whole numbers instead of fractions and makes the calculations considerably easier and quicker, has been universally adopted.

In 1855 Helmholtz devised the ophthalmometer, an instrument by which the curvature of the cornea in the different meridians and thereby its astigmatism can be measured directly; he and his disciple, Knapp of New York, made the first investigations with it. Primarily a cumbersome laboratory instrument, Javal and Schioetz of Paris in the eighties gave it a practical form for daily use, and it is now regularly employed for the determination of corneal astigmatism.

By means of all these instruments and methods of precision the refraction can be accurately calculated; and with the knowledge of the relationship between the power of accommodation and age, the medical advisor is governed by scientific laws in the selection of spectacles.

GOETHE'S NATURE PHILOSOPHY.

BY THE EDITOR.

GOETHE disliked the jealousy of the God of the Jews who would not tolerate other gods beside himself. He loved Jacobi for his positive Christian conviction, and was only alienated from him through his friend's narrowness, but even then he never ceased to appreciate his character and to cherish his regard.

Jacobi wrote to Goethe on December 28, 1812, "I am sorry that my booklet *On divine Things* has 'pretty much indisposed' you. Perhaps you will read it over once more after a year's time and I sincerely hope that you will. I do not believe, as you do, that we are constantly diverging, but that my love for you can not die, you should know."

Goethe answered this kind letter of his friend on January 6, 1813:

"Men are united by convictions; they are separated by opinions. The former are units in which we come together, the latter are manifolds in which we become dispersed. . . . The friendships of our youth are founded on the former; our differences in an advanced age are due to the latter. As to myself I can not, considering the diverse directions of my nature, be satisfied with one way of thinking. As a poet and artist I am polytheistic, as a naturalist I am pantheistic, and I am the one as decidedly as the other. In case I needed a God for my personality as a moral being, I should be provided therewith. Heavenly and earthly things comprise such a wide realm that they can be covered only by the activity of all taken together. You see such is my case, and in this way I work entirely within and without myself, and I desire that every one else should do the same. Only when what is indispensable for my own being and doing is treated by others as subordinate, unreal or even obnoxious, do I permit myself for some moments to be cross, nor do I conceal it from my friends or those who are near me.

The mood soon passes and though I may be headstrong in my own way, I beware of a reaction."

After Jacobi's death in 1819, Goethe sums up his view of him as follows: "Jacobi thought first of spirit, I of nature. We were separated by what should have united us, but the first ground of our relations remained unshaken. Our inclination, love and confidence remained constant, yet the loving interest became gradually less and finally disappeared. During our later labors we never again exchanged a friendly word. Strange that persons who cultivate the powers of thought, could not become clear concerning their mutual relations, that they allowed themselves to be disturbed through a mere onesidedness of speech, by antagonistic thought and error that could easily be removed; Why did we not say in season, 'Who wants the highest, must will the whole; who speaks of spirit must presuppose nature; who speaks of nature must presuppose spirit, or if not presuppose, must tacitly assume it. We can not separate thinking from thought, will from what is willed.' Had we tried to understand one another we might have gone through life hand in hand, instead, as is now the case, at the end of our careers when contemplating our paths trodden in separation, with a kindly and even cordial, but none the less actual, regret."

Goethe expressed his world-conception in a prose poem on nature which is published as "A Fragment" in the first issues of the *Journal* of Erfurt in 1782, a periodical which was not printed but written by hand in eleven copies, and circulated in the select circles of Weimar. This fragment is a remarkable piece of poetic prose, characteristic of Goethe the pantheist, and reads as follows:

GOETHE'S RHAPSODY ON NATURE.*

"Nature! By her we are surrounded and encompassed—unable to step out of her and unable to enter deeper into her. Unsolicited and unwarned, she receives us into the circle of her dance, and hurries along with us, till we are exhausted and drop out of her arms.

"She creates ever new forms; what now is, was never before; what was, comes not again—all is new, and yet always the old.

"We live in her midst, and are strangers to her. She speaks with us incessantly, and betrays not her mystery unto us. We affect her constantly, and yet have no power over her.

"She seems to have contrived everything for individuality, but cares nothing for individuals. She builds ever and ever destroys, and her workshop is inaccessible.

* Translated by the author.

"She lives in children alone; and the mother, where is she? She is the only artist: from the simplest subject to the greatest contrasts; without apparent effort to the greatest perfection, to the precisest exactness—always covered with something gentle. Every one of her works has a being of its own, every one of her phenomena has the most isolated idea, and yet they all make one.

"She acts a play on the stage: whether she sees it herself we know not, and yet she plays it for us who stand in in the corner.

"There is an eternal living, becoming, and moving in her, and yet she proceeds no farther. She transforms herself forever, and there is no moment when she stands still. Of remaining in a spot she does not think, and attaches her curse to standing still. She is firm; her step is measured, her exceptions rare, her laws unalterable.

"She has thought, and is constantly meditating; not as a man, but as nature. She has an all-embracing mind of her own, and no one can penetrate it.

"All men are in her, and she is in all. With all she carries on a friendly game, and rejoices the more they win from her. She plays it with many so secretly, that she plays it to the end ere they know it.

"The most unnatural is also nature; even the stupidest Philistinism hath something of her genius. Who sees her not everywhere, sees her nowhere aright.

"She loves herself and clings ever, with eyes and hearts without number, to herself. She has divided herself in pieces in order to enjoy herself. Ever she lets new enjoyers grow, insatiable to impart herself.

"She delights in illusion. Whoever destroys this in himself and others, him she punishes as the strictest tyrant. Whoever trustfully follows her, him she presses like a child to her heart.

"Her children are without number. To no one is she altogether niggardly, but she has favorites upon whom she squanders much, and to whom she sacrifices much. To greatness she has pledged her protection.

"She flings forth her creatures out of nothing, and tells them not whence they come, nor whither they are going. Let them only run; she knows the way.

"She has few springs, but those are never worn out, always active, always manifold.

"Her play is ever new, because she ever creates new spectators. Life is her finest invention, and death is her artifice to get more life.

"She veils man in darkness, and spurs him continually to the

light. She makes him dependent on the earth, dull and heavy, and keeps rousing him afresh.

"She gives wants, because she loves motion. The wonder is that she accomplishes all this motion with so little. Every want is a benefit; quickly satisfied, quickly growing again. If she gives one more, it is a new source of pleasure; but she soon comes into equilibrium.

"She sets out every moment for the longest race, and is every moment at the goal.

"She is vanity itself, but not for us, to whom she has made herself the greatest weight.

"She lets every child tinker upon her, every fool pass judgment on her, thousands stumble over her and see nothing; and she has her joy in all, and she finds in all her account.

"Man obeys her laws, even when he strives against them; he works with her even when he would work against her.

"She makes of all she gives a blessing, for she first makes it indispensable. She lags, that we may long for her; she hastens, that we may not grow weary of her.

"She has no speech or language; but she creates tongues and hearts through which she feels and speaks.

"Her crown is love. Only through it can one come near her. She creates gaps between all things, and is always ready to engulf all. She has isolated all, to draw all together. By a few draughts from the cup of love she makes up for a life full of trouble.

"She is all. She rewards herself and punishes herself, delights and torments herself. She is rude and gentle, lovely and terrible, powerless and almighty.

"All is always *now* in her. Past and future knows she not. The present is her eternity.

"She is kindly. I praise her with all her works. She is wise and quiet. One can tear no explanation from her, extort from her no gift, which she gives not of her own free will. She is cunning, but for a good end, and it is best not to observe her cunning.

"She is whole, and yet ever uncompleted. As she plies it, she can always ply it.

"To every one she appears in a form of her own. She hides herself in a thousand names and terms, and is always the same.

"She has placed me here, she will lead me away. I trust myself to her. She may manage it with me. She will not hate her work. It is not I who spake of her. No, both the true as well as the false, she has spoken it all. All the guilt is hers, and hers all the merit."

Many years after this rhapsody was written, the Chancellor of Saxe-Weimar, Herr Müller, again submitted the manuscript to Goethe, who had forgotten all about it. In the meantime he had modified his views, or rather emphasized another point in his world-conception, and so he looked upon his former thought as unsatisfactory. It was to him a comparative that ought to be superceded by a superlative. Yet it is understood that the superlative surpasses the comparative without suppressing it.

In 1782 Goethe as a pantheist believed in nature and in the divinity of nature in which we live and move and have our being, but in later years he says concerning his view at this time: "Nature here does not move forward, she remains the same. Her laws are unchangeable. Nature places me within life; she will lead me out of it, and I confide in her." Without objecting to his former belief, he has now learned to appreciate progress in nature. He sees that by "polarity" and by "gradation" nature produces a tendency *sursum*, involving a constant metamorphosis. His investigations in natural science taught him that man is kin to the animal, that he has risen from the animal kingdom, and that consequently he is capable of rising higher and higher. The thoughts of man's lowly origin and his kinship to the animal world are not depressing to him, but on the contrary elevating. He sees in them the promise of man's unlimited possibilities, but this idea is not expressed in his fragment on "Nature." So he adds to it an "Elucidation to the Aphoristic Essay on Nature," under the date of May 24, 1828, addressed to Chancellor Von Müller as follows:

"This essay was sent to me a short time ago from among the papers of the late revered Duchess Anna Amalia; it is written by a familiar hand, of which I was accustomed to avail myself in my affairs, in the year 1780 or thereabouts.

"I do not exactly remember having written these reflections, but they agree very well with the ideas which had at that time become developed in my mind. I might term the degree of insight which I then possessed, a comparative one, which was trying to express its tendency towards a superlative not yet attained.

"There is an obvious inclination to a sort of Pantheism, to the conception of an unfathomable, unconditioned, humorously self-contradictory being, underlying the phenomena of nature; and it may pass as a jest, with a bitter truth in it.

"What it lacks, however, to make it complete is the consideration of the two great driving wheels of nature: the ideas of polarity and of gradation, the first pertaining to matter in so far as we con-

ceive it as material, the second on the other hand pertaining to spirit in so far as we conceive it as spiritual; the one exists in continuous attraction and repulsion, the other in constantly aspiring to a higher stage. But because matter can not exist efficiently without spirit nor spirit without matter, matter is also capable of advancement just as spirit is not prevented from attracting and repelling; as only those can understand who have analysed sufficiently to be able to make combinations, or have made enough combinations to be able to analyse again.

"In those years when the above mentioned essay was probably written I was chiefly occupied with comparative anatomy, and in 1784 took great pains to arouse sympathy with my conviction that man's possession of an intermaxillary bone was not to be disputed. Even very good thinkers would not investigate the truth of the assertion and the best observers denied its importance and as in so many other matters I had to secretly pursue my own way.

"I studied with unremitting effort the versatility of nature in the vegetable kingdom, and was fortunate enough when in Sicily in 1787 to become acquainted objectively with the metamorphosis of plants as well as in the abstract conception. The metamorphosis of the animal kingdom bordered on that of plants, and in 1790 in Venice I discovered the origin of the skull from vertebræ. I now pursued more eagerly the construction of the type, dictated the formula to Max Jacobi at Jena in 1795, and soon had the pleasure of seeing my work taken up by German naturalists.

"If we consider the high achievements by which all the phenomena of nature have been gradually linked together in the human mind; and then, once more, thoughtfully peruse the above essay, from which we started, we shall, not without a smile, compare that comparative, as I called it, with the superlative which we have now reached, and rejoice in the progress of fifty years."

It is well known that Goethe was an evolutionist, or as he would have called himself, a transformationist. He believed in the plasticity of life and he became firmly convinced that all plants were mere variations of one general type. They are all kin and their variety of form can be explained by metamorphosis or transformation. His enthusiasm for this idea found expression in lines addressed to his wife Christine under the title "The Metamorphosis of Plants." Unfortunately the poem is written in the ponderous meter of elegiac distich. It reads:

THE METAMORPHOSIS OF PLANTS.*

"Thou art confused, my beloved, at seeing the thousandfold medley,
 Shown in this flowery mass, over the garden dispersed;
 Many a name, love, thou hearest assigned; one after another
 Falls on thy listening ear, with a barbarian sound.
 None of these forms are alike but they all bear a certain resemblance,
 And a mysterious law is by their chorus revealed.
 Yea, 'tis a sacred enigma, my loveliest friend; could I only
 Happily teach thee the word, which will the mystery solve!
 Closely observe how the plant is developing little by little,
 How it will grow by degrees changing to blossom and fruit!
 First from the seed it unravels itself, as soon as the silent,
 Motherly womb of the earth kindly allows its escape,
 And to the charms of the light, which is holy and ever in motion,
 Trusteth its delicate leaves, feebly beginning to shoot.
 Simple the force is that slumbers in seeds; 'tis a germ of the future,
 Peacefully locked in itself, 'neath the integument hid,
 Leaflet, and rootlet, and bud, still void of all color, and shapeless,
 Such as the kernel, while dry, holdeth in motionless life.
 Upward then striveth the plant and it swelleth with delicate moisture,
 Forth from the night where it dwelt, straightway ascending to light
 Simple remaineth its shape, when the green first makes its appearance;
 And 'tis a token like this, points out the child 'mid the plants.
 Soon though an off-shoot, succeeding it, rises on high, and repeateth,
 Piling up node upon node, ever the primitive form;
 Yet not always alike: for the following leaf, as thou seest,
 Ever produceth itself, fashioned in manifold ways,
 Longer and more indented, in points and in parts more divided,—
 Forms which were latent till now, sleeping in organs below.
 So it attaineth at length its predestined and noble perfection,
 Which in these numerous forms, fills thee with wondering awe.
 Ribbed it appears here and toothed, on its surface exuberant swelling,
 Free and unending the shoot seemeth in fulness to be;
 Nature, however, restraineth with powerful hand the formation,
 And she perfecteth the plant, gently completing its growth,
 Yielding the juices with lesser abundance, contracting the vessels,
 So that the figure ere long nobler effects will disclose.
 See how the growth of the foliage here on the edge is retarded,
 While there the rib of the leaf fuller becometh in form.
 Leafless, however, and quick the tenderer stem then upspringeth,
 And a miraculous sight will the observer enchant.
 Ranged in a circle in numbers that now are but small, and now countless,
 Gather these delicate leaves close by the side of their like,

* First printed in Schiller's *Musen-Almanach* for 1799, but probably written nine years before that date, simultaneously with Goethe's treatise entitled "An Essay to Explain the Metamorphosis of Plants" (1790). This made no favorable impression but elicited only vehement contradiction on the part of specialists. In order to prepare the public for his ideas Goethe wrote this poem. If, as we must assume, this is correct, his "beloved" mentioned in the poem has reference to Christine Vulpius, afterwards his wife.

Here at the axis embraces them all the well sheltering calyx
 Which the corolla presents, brilliant in hue and in form.
 Nature thus decks them with bloom in a noble and radiant glory,
 Showing, in order arranged, branches with leaves and with buds.
 Wonderment fresh dost thou feel, as soon as the stem rears the flower
 Over the scaffolding frail fringed with its alternate leaves.
 Flowers, however, are only the prophets of further creation,
 Truly the leaf with its hues feeleth the touch of a god.
 It on a sudden contracteth itself; the tenderest figures,
 Stand as yet twofold, divided, but soon will they haste to unite.
 Lovingly then the fair couples are joined in a bridal alliance,
 Gathered in countless array, there where the altar is raised.
 Hymen is hovering o'er them, and scents of an odor delicious
 Sweetly their fragrance exhale for the delight of the world.
 Presently numberless germs on the several branches are swelling,
 Sweetly concealed in the womb, where is made perfect the fruit.
 Here, we see, Nature is closing the ring of her forces eternal;
 And it attacheth a new link to the one gone before,
 So that the chain be prolonged forever through all generations,
 And that the whole may have life, e'en as enjoyed by each part.
 Now, my beloved one, turn thou thy gaze on the many-hued thousands
 Which confuse thee no more; for they will gladden thy mind.
 Every plant unto thee proclaimeth the law everlasting,
 Every floweret speaks louder and louder to thee;
 But if thou here canst decipher the sacred design of the goddess,
 Everywhere will it be seen, e'en though the features are changed.
 Caterpillars are sluggish, and busily butterflies flutter,—
 Man however may change even the figure decreed.
 Oh, then, bethink thee, as well, how out of the germ of acquaintance,
 Gradually habits arose. Seeking each other we met,
 Verily friendship and love began to flame up in our bosoms,
 Finally Amor procured wondrously blossom and fruit!
 Think of the manifold touches which Nature hath lent to our feelings,
 Silently giving them birth, all of them different in form!
 Yea, and rejoice thou to-day in the present! For love that is holy
 Seeketh the noblest of fruits,—which is a concord of thought,
 When our opinions agree,—thus we both will in rapt contemplation,
 Lovingly blending in one,—find a more excellent world."

After Bowring's translation.

Goethe laid more stress on the thoughts of this poem than his contemporaries, and he was greatly displeased that his friends did not see the same deep meaning in it which he had tried to express. He was not less unfortunate with another argument in favor of man's kinship to the animal world which aroused a storm of indignation and of controversy, but the truth of which has since then been recognized. In Goethe's time naturalists maintained that the essential difference between human and animal skeletons was the absence of the intermaxillary bone in the human jaw. Goethe succeeded in

pointing out the existence of this bone, by showing that it had coalesced so thoroughly as to conceal its separate character. The existence of this intermaxillary bone remained a guarantee to Goethe of the truth of the theory of evolution as well as of the interrelation of all life on earth, and this opened to him the great vista of greater possibilities in man's future.

Goethe gave a poetic expression to these thoughts in "Metamorphosis of Animals" presumably written in 1806, in which, besides teaching the theory later on propounded by Lamarck that habits determine the forms of life, he emphasizes mainly the ethical aspect of the plasticity of nature and points out that perfection can be attained only by imitation.

The "Metamorphosis of Animals" (written in hexameters, not in distichs) in spite of its importance has never as yet been translated. We offer the following version:

THE METAMORPHOSIS OF ANIMALS.

"Durst ye ascend to the peak, to the highest of heights on the summit?
Well, then, I proffer my hand, and here you behold from this outlook
O'er the wide province of nature a view. Oh see, how the goddess
Spendeth so richly her gifts! Yet worries she not as do mortal
Mothers who, filled with anxiety, care for the fate of their children.
'Twould not behoove her. She guards the young life by laws that are twofold.
This is her highest degree: She limits the scope of each creature,
Gives it a limited want yet supplies it with means without limit,
Easily found and supplied. In motherly kindness she favors
Those of her children who earn her affection by daring endeavor.
Untrained they swarm into life, each obeying its own inclination.

"Truly's each creature itself its own purpose, for nature creates it
Perfect; and it in its turn begets progeny that will be perfect.
Organs and members are shaped according to laws everlasting,
Even the oddest formation its prototype latent preserveth.
Thus each mouth is adapted to seize the right food and to swallow
That which is fit for its stomach,—the one may be tender and toothless,
While there are others with powerful jaws; but one organ
Always for proper nutrition will cooperate with the others.
Also the feet to the needs of the body are wisely adjusted,
Some of them long, while others are short, in perfect proportion.
Thus the kind mother assureth to each of her several children
Health in good store; and the organized limbs of each animate being,
Always will work for the whole, and ne'er counteract one another.
Therefore the shape of a creature determines its life and its habits,
While *vice versa* the habits of life will react on the organs
Potently. Any formation possesses a definite order
Which yet is subject to change through external effects and conditions.

But in the innermost self of the noblest of nature's creations
 Lieth their power, confined to a holy mysterious circle.
 And these limits removeth no god; they are honored by nature,
 For limitation alone makes possible highest perfection.

"Yet in the innermost self a spirit titanic is also
 Stirring, which fain would arbitrarily break through the circle,—
 Bold innovation begetting new forms! But in vain it aspireth.
 See how it swelleth one part, it endoweth with power
 One for all others, and lo the result! Those others must suffer.
 Thus a onesided preponderance taketh away the proportion,—
 Yea, it destroys all beauty of form and harmonious motion.
 Seest thou then that a creature has preference gained over others
 Look for the shortage at once and seek with confiding inquiry.
 Then, thou, at once, wilt discover the key for the varied formations;
 As, for example, no animal beareth a horn on its forehead,
 If in its jaw it possesseth its teeth in perfect completion,
 Wherefore our mother eternal e'en if she endeavored to do so,
 Could not in all her creation engender such forms as horned lions.
 There's not enough in amount for constructing the horns on the forehead,
 And in the mouth the formation of teeth that are perfect in number.

"Tis a most beautiful thought to have power and self-limitation,
 Liberty and moderation, free motion and law, and all plastic
 Preference offset by want! O rejoice that the Muses have taught thee
 Gently for harmony's sake to yield to a wholesome compulsion,
 For there's no ethical thinker who finds aspirations sublimer.
 Truly the man of great deeds, the artist, the poet, the ruler,
 He who deserves so to be, thus only his worth can acquire.
 Highest of creatures, rejoice! for thou, thou alone, comprehendest
 Nature's sublimest idea; and what at her best she created
 Thinkest thou over again. Here take thou thy stand and look backward,
 Prove all things and compare, and learn from the Muse what she teaches,
 Better than raving by far is assured and approved comprehension."

The two poems on the metamorphosis of plants and animals appear in the usual editions of Goethe's poetry framed in by three little poems entitled "Parabasis," "Epirrhema," and "Antepirrhema," which strange-sounding titles are chosen in imitation of a custom of the chorus of the Greek stage, whose leader, the so-called Corypheus, addressed the public in a general adhortation not necessarily connected with the plot of the drama. The first address "Parabasis" is followed by the "Epirrhema," a kind of epilogue, and the "Antepirrhema" a counter-epilogue. Like several other philosophical poems of Goethe here quoted they are now translated for the first time.

PARABASIS.

"Joyous, as it me behooveth,
 Did for years my soul aspire
 To experience and inquire
 How creative nature moveth.

"Tis the eternal one and all
 Which appears as manifold,
 Small things great are, great things small,
 Everything has its own mould.

"Same remaining in mutations,
 Near and far and far and near,
 Forming thus by transformations,
 For amazement am I here."

EPIRRHEMA.

"Take in nature-meditation,
 Each and all in contemplation,
 Naught is inside, naught is out,
 For the inside is without.
 Thus shall comprehended be
 Holy open mystery.

"Truth of semblance pleasure giveth,
 So doth serious play.
 Merely one naught is that liveth,
 'Tis a manifold alway."

ANTEPIRRHEMA.

"Behold how nature all achieves,
 How masterly her work she weaves.
 One treadle holds thousands of threads connected.
 Her shuttles hither and thither are flung.
 The fibers in both directions strung,
 And thousand transactions at once are perfected.

"This she has not by chance combined,
 But from eternity designed,
 So the eternal master may
 His web and woof with surety lay."

QUESTIONS FROM THE PEW.

BY FRANKLIN N. JEWETT.

THE BETHLEHEM PROPHECY.

(Micah, v. 2.)

“**B**UT thou, Bethlehem Ephrata, which art little to be among the thousands of Judah, out of thee shall one come forth unto me that is to be ruler in Israel; whose goings forth are from of old, from everlasting, ” or as in the margin, “from ancient days.”

When the writer was quite a large boy he recited the above verse in a public meeting, as an exercise that had been assigned him. The passage was of course understood as a prophecy of Christ. It was selected because of this fact. It was Jesus of Nazareth of whom it was here predicted that he should come from Bethlehem and be ruler in Israel, and whose goings forth had been from everlasting. In the warm enthusiasm of the occasion very possibly every one present considered this to be the true meaning of the passage. Nothing was said even intimating that the verse could have a different meaning, or in any way raising a question as to what its meaning was when it was first uttered. The remainder of the passage which this verse introduces was in no wise alluded to. Neither does the writer, with a church and Sunday school attendance of some considerable extent, remember that it was ever referred to at any church exercise at which he was present; and moreover he has never heard of its having been explained or set forth or referred to in any church upon any occasion whatever.

The passage continues as follows: “Therefore will he give them up, until the time that she which travaileth hath brought forth; then the residue of his brethren shall return unto (or with) the children of Israel. And he shall stand, and shall feed (his flock) in the strength of the LORD, in the majesty of the name of the LORD his God: and they shall abide; for now shall he be great unto the ends

of the earth. And this (man) shall be (our) peace: when the Assyrian shall come into our land, and when he shall tread in our palaces, then shall we raise against him seven shepherds and eight principal men. And they shall waste the land of Assyria with the sword and the land of Nimrod in the entrances thereof: and he shall deliver us from the Assyrian, when he cometh into our land, and when he treadeth within our border. And the remnant of Jacob shall be in the midst of many peoples as dew from the LORD, as showers upon the grass; that tarrieth not for man nor waiteth for the sons of men. And the remnant of Jacob shall be among the nations, in the midst of many peoples, as a lion among the beasts of the forest, as a young lion among the flocks of sheep: who, if he go through, treadeth down and teareth in pieces, and there is none to deliver. Let thine hand be lifted up above thine adversaries, and let all thine enemies be cut off."

Of course this is a passage of plain meaning as regards Assyria and the "remnant of Jacob." Assyria was the great threatening power in the north-east. It was as real to the inhabitant of Palestine then as Germany is to a Frenchman now, and more to be feared. Certainly the words of our passage were adapted to produce definite impressions. Terms more matter-of-fact could hardly have been chosen.

Now our special point here is that whatever these words were specially or plainly *adapted* to produce, that they must have been *intended* to produce. This would have been true even if the intention had been to deceive. This conclusion seems unavoidable on any other supposition than that the responsible author of the words did not know what meaning they would convey, or what meaning they were properly adapted to convey. How can this be seen differently? The prophet was speaking in view of a clearly perceived and pressing situation; and he was speaking plainly. Nothing could have been further from his mind than speaking in enigmas. He had just predicted the capture of Zion; but there was also to be a return. "For now shalt thou go forth out of the city; and shalt dwell in the field, "and shalt come even unto Babylon; there shalt thou be rescued; there shall the Lord redeem thee from the hand of thine enemies. And now many nations are assembled against thee, that say Let her be defiled, and let our eye see (its desire) upon Zion. But they know not the thought of the LORD, neither understand they his counsel: for he hath gathered them as sheaves to the threshing floor. Arise and thresh, O daughter of Zion: for I will make thine horn iron, and I will make thine hoofs brass: and thou shalt beat

in pieces many peoples: and thou shalt devote their gain unto the LORD, and their substance unto the Lord of the whole earth."

With one intervening verse, the prophet continues, in further encouragement, with the passage which we are studying. It is with its plain meaning that we have now to do. What the passage meant then the responsible author of it told the people. Is not this perfectly evident? This ruler was to be a great military leader. He was to be of the Davidic dynasty, this fact at least being expressed by saying that he was to come out of Bethlehem. He was to deliver his people from all aggression of the Assyrians, and under his leadership the land of Assyria was to be wasted with the sword.

To claim a secondary and spiritual meaning as the more important and controlling one in this passage does not relieve the situation, even if the claim were to be granted. If we were to admit here any number of such meanings, whose brightness and power were to be manifested only after many centuries, we could not thereby be justified in failing to take account of the original meaning and force. That meaning no explanation of the passage or theory of the Christian Scriptures can permissibly ignore; and how can that meaning be dealt with on any view of the Scriptures that is taught in most of the churches?

Also, why, in simple fairness, has not this passage in its entirety, been regularly taught or presented in the churches and Sunday schools? Is not this a case in which the truth has not generally been sought out and shown? Has not the Church here in some considerable degree failed to make good its oft-made claim of being an institution characterized by the seeking and exposition of the truth?

IN THE MAZES OF MATHEMATICS.

A SERIES OF PERPLEXING QUESTIONS.

BY WM. F. WHITE, PH. D.

III. GEOMETRIC PUZZLES.

“A RECTANGULAR hole 13 inches long and 5 inches wide was discovered in the bottom of a ship. The ship’s carpenter had only one piece of board with which to make repairs, and that was but 8 inches square (64 square inches) while the hole con-

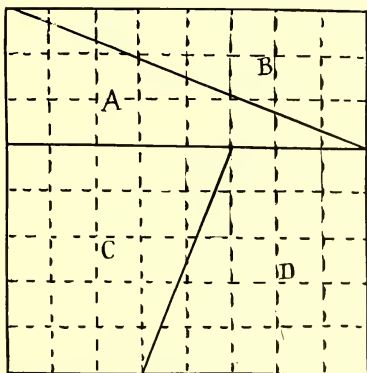


Fig. 1.

tained 65 square inches. But he knew how to cut the board so as to make it fill the hole!” Or, in more prosaic form:

Fig. 1 is a square, 8 units on a side, area 64; cut it through the heavy lines and rearrange the pieces as indicated by the letters in Fig. 2, and you have a rectangle 5 by 13, area 65. Explain.

Fig. 3 explains. EH is a straight line, and HG is a straight line; but they are not parts of the same straight line. Proof:

Let X be the point at which EH produced meets GJ ; then from the similarity of triangles EHK and EXJ

$$XJ : HK = EJ : EK$$

$$XJ : 3 = 13 : 8$$

$$XJ = 4.875$$

$$\text{But } GJ = 5$$

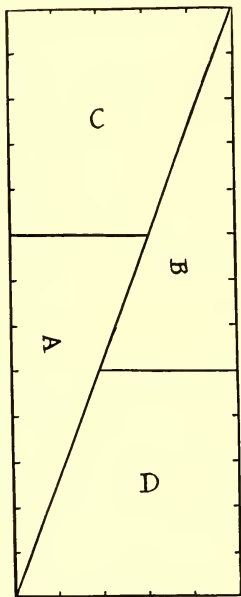


Fig. 2.

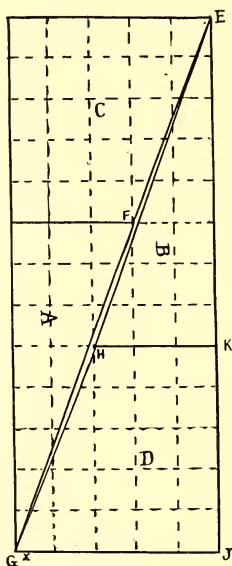


Fig. 3.

Similarly, EFG is a broken line.

The area of the rectangle is, indeed, 65, but the area of the rhomboid $EFGH$ is 1.

This paradox is referred to as early as 1877, in the *Messenger of Mathematics*; cited by W. W. R. Ball (*Mathematical Recreations and Essays*, Macmillan, 1905, p. 49) who uses this to illustrate that proofs by dissection and superposition are to be regarded with suspicion until supplemented by mathematical reasoning.

Another puzzle is made by constructing a cardboard rectangle 13 by 11, cutting it through one of the diagonals (Fig. 4) and

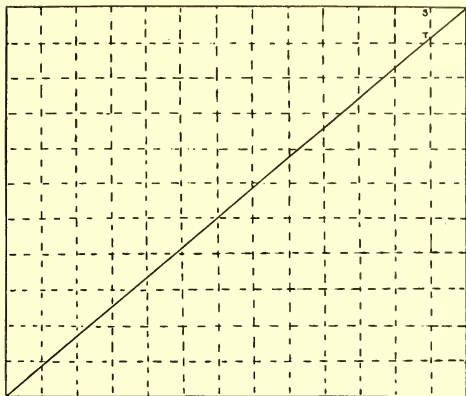


Fig. 4.

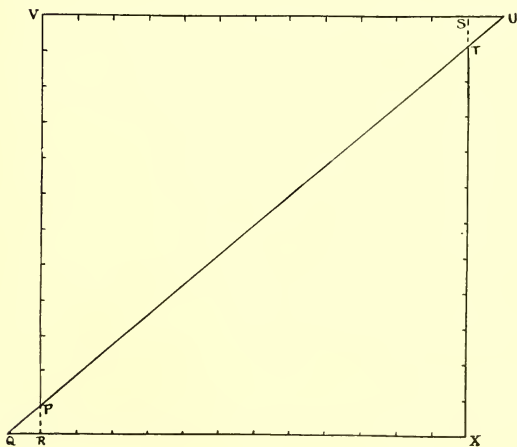


Fig. 5.

sliding one triangle against the other along their common hypotenuse to the position shown in Fig. 5. Query: How can Fig. 5

be made up of square $VRXS$, 12 on a side, area 144, + triangle PQR , area 0.5, + triangle STU , area 0.5, = total area 145; when the area of Fig. 4 is only 143?

Inspection of the figures, especially if aided by the cross lines, will show that $VRXS$ is not a square. VS is 12 long; but $SX < 12$. $TX = 11$ (the shorter side in Fig. 4, but $ST < 1$ (see ST in Fig. 4).

$$ST : VP = SU : VU$$

$$ST : 11 = 1 : 13$$

$$ST = \frac{11}{13}$$

$$\text{Square } VRXS = 12 \times 11 \frac{11}{13} = 142 \frac{2}{13}$$

$$\text{Triangle } PQR = \text{triangle } STU = \frac{1}{2} \cdot \frac{11}{13} \cdot 1 = \frac{11}{26}$$

$$\text{Fig. 5} = \text{square} + 2 \text{ triangles} = 142 \frac{2}{13} + \frac{11}{13} = 143.$$

EROS ON THE SHIP OF LIFE.

ONE of the most beautiful monuments that ever decked a tomb stands in the Campo Santo of Genoa, Italy, where it was erected by the sculptor Scanzi for the Carpaneto family. It represents the



APOLLO ON HIS TRIPOD FLYING OVER THE OCEAN.

605

god of love hoisting the sail of his ship to cross the unknown sea of death and to reach a new land beyond, there to enjoy a renewed

life. The idea is at once modern and ancient, modern in so far as it preaches an immanent immortality, and ancient because it utilizes the mythology of pagan Greece, which attributes to Eros, the god of love, the power of descending into Hades and returning back to



EROS ON A DOLPHIN.

627



DIONYSUS CROSSING THE SEA.

603

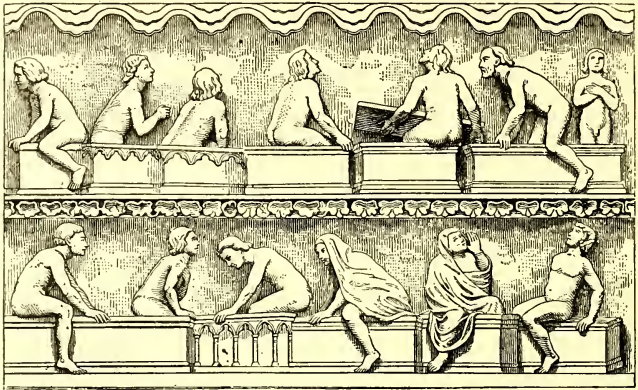
life. As the sun sets in western ocean and rises again on the next morn in the east, so all the gods of life and light,—Eros, Apollo, Dionysus, and their human incarnations, such men as Orpheus, Odysseus and others, pass on a fish, in a ship, or in an ark, over the



THE RESURRECTION OF CHRIST.
By Perugino. (Vatican.)

stormy sea through the realm of death and rise to new life, in the same way as nature is rejuvenated in spring. The legends of the Greek Adonis, the Phrygian Atys, the Syrian and Babylonian Tammuz possess all the same significance. They are Easter gods, they die but are quickened to new life, and their festivals were celebrated in a spirit of lamentation that is turned into rejoicing, since their destiny extends to mankind a promise of immortality.

Christian art conceives immortality as transcendent and extra-



EARLY CHRISTIAN IDEA OF THE RESURRECTION.

2679

mundane. It is represented as a resurrection of the body from the tomb, an idea which has found a basis in the doctrine of Christ's bodily resurrection. If the letter of the dogma has to be abandoned we can still uphold its spirit, for the truth remains that man's life does not end with death. His work lives on, his ideas do not die, and so his soul remains a living factor in the growing generation and will continue such to the end of the world.

MISCELLANEOUS.

THE NOBLER LESSON.

Christ was of virgin born, and, being slain,
The credists say, he rose from death again.
O futile, age-long talk of death and birth!—
His life, that is the one thing wonder-worth:
Not how he came, but how he lived on earth.
For if gods stoop, and with quaint jugglery
Mock their own laws, how shall that profit thee?
The nobler lesson is that mortals can
Grow god-like through this baffled front of man.

DON MARQUIS.

ETHICAL INSTRUCTION.

To the Editor of The Open Court:

I submit to the readers of *The Open Court* a plan for the establishment of religious, or ethical institutions. It was long fervently hoped that the churches would adapt themselves to the needs of the times, but this hope has not been realized and there is no promise that it will be realized. Nearly all the denominations are dominated by the sectarian rather than the religious spirit, and they have so long refrained from a progressive policy that an adequate adjustment at this late day would amount almost to a subversion of their most cherished principles and ideals; hence the idea of an adjustment is even more repugnant to them than the certainty of further decline and ultimate extinction.

The main functions of religious institutions are, the progressive formulation and promulgation of ethical precepts, the employment of practical means to induce men to obey these precepts, and the organization of the moral energy of the people.

The ethical code should comprise all those conditions of character and forms of conduct which experience and observation prove are in accord with the nature and environment of men considered as members of a progressive humanity.

The possession of energy is perhaps the most pronounced characteristic of human nature, and scarcely less pronounced is the desire to exert this energy so that the results may contribute to and be conserved with the achievements of the race. Ethics must treat of the conditions and means of attaining this end.

There are duties that are incumbent on all men; there are duties that

are incumbent on certain classes; but all are parts of one system. Individuals in general should not be required to formulate their moral principles, for the task presupposes a comprehensive conception of humanity and a systematic knowledge of the relation of all the different forms of conduct to the environment and to the movement of civilization. The individual, if very intelligent and sincere, can, with sufficient time and effort, arrive at a system correct in the main, but the masses are hopelessly prejudiced by selfish interests. In the investigation of moral truths, special equipment and disinterestedness are indispensable, and the only way to secure these qualifications is to make a profession of the work. Now, there are men and women who are inclined and talented in this direction; let them do the work and let society maintain them.

Religious institutions, like educational institutions, concern the whole people and should therefore be authorized and controlled by the common will of the people—or in other words, by the State. My solution, specifically stated, is as follows:

Let the different States establish departments in the universities for research work in ethics. It is true there is still radical disagreement among ethical investigators, but let a practical field be opened and it would then be a matter of satisfying human needs. Let courses be established for the purpose of training prospective ethical preachers in the knowledge of ethics, in oratory, and in methods of ethical influence. Let a suitable building be provided in every community where people could assemble regularly to hear addresses and participate in any other forms of devotion conducive to morality. There ought to be ethical hymns that would express in modern terms the great religious truths contained in the older ones. Also books of "prayer" whereby the masses who lack fluency could express their feelings of repentance, aspiration, etc. All these practices would have a strong tendency toward elevating moral conditions.

The control and financial support of the system here proposed could be very similar to those of public education and, like public education too, the work should be kept out of politics. The two systems should, however, in my opinion, be kept entirely separate. There is not space here to discuss the question of ethics in the school-room, but the history of religious institutions plainly shows that it is mainly over adults that such institutions exert their direct influence.

HARRISBURG, PA.

CYRUS H. ESHLEMAN.

EDITORIAL COMMENT.

Mr. Eshleman's idea of having Ethical Institutions officially managed by State authorities is obviously prompted by the dearth of sound moral principles manifest in both public and private life. But whether such State institutions are feasible in our own country,—they would practically amount to an Ethical State Church,—is more than doubtful, and it would be very difficult, if they existed, to have them administered by the right kind of men and in the right spirit of a non-partisan and inter-denominational morality. We publish his proposition as a suggestion that may give food for thought.

BOOK REVIEWS AND NOTES.

MEMORIES AND THOUGHTS. Men—Books—Cities—Art. By *Frederic Harrison*. New York: Macmillan, 1906. Pp. 409.

Auguste Comte's positivism has found its exponent in Mr. Frederic Harrison of London, who has long been before the public as a speaker to the positivist congregation at London, and as a writer of miscellaneous essays. His visit to America is still remembered by the many friends of his philosophy whom he met on this side of the Atlantic, and yielding to an urgent request he has now published in this book a number of his essays together with an autobiographical sketch. The book is exceedingly interesting and we select here the following extracts which characterize Mr. Harrison as a man and a thinker. After the completion of his school days Mr. Harrison speaks of his university years as follows: "I went up to Oxford from school in 1849; at a time when the great controversy in theology, which shook the Church and led to the conversion of Cardinal Newman, Cardinal Manning, and many others, was passing into a new phase. Liberalism was in the ascendant, and the dominant type of thought presented to me was Positive rather than Catholic. J. Stuart Mill, George Grote, Arnold and his historical school, Carlyle and his political school, Comte and his Positive school, were the influences under which my mind was formed."

Continuing he says:

"I was brought up as a High Churchman, my Godfather being an intimate ally of Henry Phillpotts, Bishop of Exeter, and he took care to give me a thorough training in orthodox divinity. At school I had been something of a Neo-Catholic, and took the sacrament with a leaning toward transubstantiation. As a student at college, I slowly came to regard the entire scheme of theology as an open question; and I ultimately left the university, about the age of twenty-four, without assured belief in any form of supernatural doctrine. But as the supernatural died out of my view, the natural took its place, and amply covered the same ground. The change was so gradual, and the growth of one phase of thought out of another was with me so perfectly regular, that I have never been able to fix any definite period of change, nor indeed have I ever been conscious of any real change of mind at all. I have never known any abrupt break in mental attitude; nor have I ever felt change of belief to involve moral deterioration, loss of peace, or storms of the soul. I never parted with any belief till I had found its complement; nor did I ever look back with antipathy or contempt on the beliefs which I had outgrown.

"For the first thirty years of my life I was essentially a learner. but only in part a student of books. Never having been a great reader, and not having acquired the passion of pure study, I cared mainly for men, things, places, and people. . . . My interests have always led me to study movements on the spot, and from the lips of those who originate them. In this spirit I have sought to understand the various social and labor questions by personal intercourse with practical men.

"The acceptance of the general principles of Auguste Comte has been the result of very long and unremitting study, and it proceeded by a series of marked stages. First his view of history commanded my assent; then his scheme of education; next his social Utopia; then the politics; after that his

general view of philosophy; and finally the religious scheme in its main features. During the whole of the process, up to the last point, I reserved large portions of the system, to which I felt actual repugnance, or at least confirmed doubt. And during the various stages I kept up lively interest, and no little sympathy, with many kindred, rival, and even antagonistic systems, philosophical and religious.

"My profession was the law, the practice of which I followed for some fifteen years without great zest and without any ambition. I afterward taught jurisprudence as professor; and, having inherited a modest fortune, which I have had no desire to increase, I eventually withdrew to my present occupation of urging on my neighbors opinions which meet, I must admit, with but moderate acceptance.

"Our knowledge enlarges, our formulas change, our methods grow; but everywhere it is growth, not destruction. What I have witnessed is not really revolution: it is normal evolution. The cells and germs are forever in perpetual movement. The organism—Humanity—remains, and lives the life of unbroken sequence."

The contents of Mr. Harrison's essays collected in the present volume touch on varied subjects. They relate his recollection of the burials of Renan and Tennyson; he speaks of Cromwell, his Tercentenary and his statue, of Carlyle, of Franklin, Alexander Hamilton, Thackeray, George Eliot, Ruskin, etc. He relates a pilgrimage to Lourdes, speaks of the ideal London, of historical Paris, English cathedrals, and picture exhibitions, the ancient masters, etc. He expresses his natural feelings as an Englishman very vigorously by denouncing the modern habit of introducing the name Briton. He says:

"What are we, citizens of no mean country, to call ourselves, if we give up the style of Englishmen? I object most positively to 'Briton.' I am not willing to call my native land 'Britain.' Why 'Briton' and 'Britain'? These terms are wrong on every ground—whether of history, of constitutional right, of language, or of justice."

It is refreshing to read his denunciation of card-playing, the very sight of which he detests. He says:

"I do not call it a vice, unless it ends in reckless gambling, which it often does. But it is an anti-social, debilitating form of folly, which encourages mean kinds of excitement."

Most interesting to Americans, however, will be Mr. Harrison's judgment of America. It seems perhaps more favorable than Mr. Harrison means it himself. Extracts of the main passages are as follows:

"New York and Chicago contain 'more Germans than any city but Berlin, more Irishmen than Dublin, more Italians than Venice, more Scandinavians than Stockholm, and' (they sometimes add) 'more sinners than any place on earth.' Statistics give us the facts, and of course there is no sort of doubt about the immense degree in which the United States are peopled by a race of foreign birth or origin. In the eastern slums of New York, in the yards and docks of the great cities, one sees them by myriads: Germans, Irish, Italians, Swedes, Russians, Orientals, and negroes. But those who direct the State, who administer the cities, control the legislatures, the financiers, merchants, professors, journalists, men of letters—those whom I met in society—were nearly all of American birth, and all of marked American type.

I rarely heard a foreign accent or saw a foreign countenance. The American world is practically 'run' by genuine Americans.

"In spite of the vast proportion of immigrant population, the language, character, habits of native Americans rapidly absorb and incorporate all foreign elements. In the second or third generation all exotic differences are merged. In one sense the United States seemed to me more homogeneous than the United Kingdom. There is no state, city, or large area which has a distinct race of its own, as Ireland, Wales, and Scotland have, and of course there is nothing analogous to the diverse nationalities of the British Empire. From Long Island to San Francisco, from Florida Bay to Vancouver's Island, there is one dominant race and civilization, one language, one type of law, one sense of nationality. That race, that nationality, is American to the core. And the consciousness of its vast expansion and collective force fills the mind of American citizens, as nothing can do to this degree in the nations of western Europe. Vast expansion, collective force, inexhaustible energy—these are the impressions forced on the visitor, beyond all that he could have conceived or expected to find. It is borne in on him that he has come, not so much to another nation as to a new continent, inhabited by a people soon to be more numerous than any two of the greater nations of western Europe, having within their own limits every climate and product between the Tropics and the Pole, with natural resources superior to those of all Europe put together, and an almost boundless field for development in the future.

"Chicago struck me as being somewhat unfairly condemned as devoted to nothing but Mammon and pork. Certainly, during my visit, I heard of nothing but the progress of education, university endowments, people's institutes, libraries, museums, art schools, workmen's model dwellings and farms, literary culture, and scientific foundations. I saw there one of the best and most vigorous art schools in America, one of the best Toynbee Hall settlements in the world, and perhaps the most rapidly developed university in existence. . . . For energy, audacity, and enterprise, the Chicago people are famous even in the Western States of America. 'When I come to London,' said a leading man of business, 'I find your bankers and merchants stroll into their offices between ten and eleven in the morning. I am at my desk at seven,' said he, 'and by noon I have completed fifty transactions by telephone.'

"No competent observer can doubt that in wealth, manufactures, material progress of all kinds, the United States, in a very few years, must hold the first place in the world without dispute. Its population will soon double that of any nation of western Europe. That population will have an education second only to that of Germany and Switzerland, and superior to that of any other European nation. The natural resources of their country exceed those of all Europe put together. Their energy exceeds that of the British; their intelligence is hardly second to that of Germany and France. And their social and political system is more favorable to material development than any other society ever devised by man. This extraordinary combination of national and social qualities, with vast numbers and unbounded physical resources, cannot fail to give America the undisputed lead in all material things.

"The characteristic note of the United States is to be found in this free-

dom of the individual—the *carrière ouverte aux talents*—in a sense which is unknown to Europeans and can hardly be conceived by them. Every one of these seventy millions—at least of whites—has an ‘equal chance’ in life. A first-rate education, comfort, and ‘betterment’ are within the reach of every youth and girl of average capacity and industry. Most of the men eminent in business, politics, or literature began life by ‘teaching school.’ Every messenger boy or machine-hand may be an embryo President of the United States, of a railroad, or a bank, a powerful journalist, or a millionaire. Every lad seems conscious that this is open to him, and most of them live and work as if they meant to try for this end. Every girl at the type-desk or a telegraph office may live to reside in Fifth Avenue, or—who knows?—in the White House. And the ease with which the youth and girl adapt themselves to new careers and wider functions is one of the wonders of American life.

“Literature, politics, manners and habits, all bear the same impress of the dominant idea of American society—the sense of equality. It has its great side, its conspicuous advantages, and it has also its limitations and its weakness. It struck me that the sense of equality is far more national and universal in America than it is in France, for all the pæans to equality that the French pour forth and their fierce protestations to claim it. ‘Liberty, equality, and fraternity’ is not inscribed on public edifices in the United States, because no American citizen—or, rather, no white citizen—can conceive of anything else. The shoeblack shakes hands with the President, and (in the absence of a Pullman) travels in the same car with the millionaire. The millionaire has a very restricted household of servants, and they are more or less his masters, because the true-born American will not accept domestic service on any wages, and the Irish ‘helps’ are the despair of the housekeeper.”

All this sounds very favorable, but Mr. Harrison adds: “All this has its bad side as well as its good side,” and he calls special attention to the fact that “public men in America are commonly accused of accepting the moral standards of the mass and of tamely yielding to the voice of majorities,” while in England a man of ambition would always consider what is due to his own position, and so it is obvious that Mr. Harrison is under the impression that the leaders of the destiny of our nation complacently yield to the wishes of majorities. Though this is quite true of the average politician, we do not go too far in saying that the great leaders, such as Lincoln, and in these later days Cleveland as well as Roosevelt both show their scorn of representing majorities, and the courage of having their own opinions.

Mr. Harrison discusses the shape and makeup of our flag. Having briefly explained the origin of the stars and stripes from the ancient coat of arms of Washington, he condemns the appearance of the flag as unheraldic and inartistic. He says: “Nothing more artless, confused, and unheraldic can be conceived,” and he continues thus:

“An unlucky question was once put to me by a patriot, whether the ‘star-spangled banner’ was not beautiful as a work of art. I was obliged to answer that, with all my veneration for the banner of the Republic, in my humble judgment it was (heraldically speaking) both awkward and ugly, unbalanced, undecipherable, and mechanical. It may be well to distinguish the Republican emblem from the feudal heraldry of the Old World, but it is a pity that the invention of the New World could not have devised an emblem with some claim to be clearly read and to look graceful. The thirteen bars, or stripes,

have now lost their significance, and might in time disappear. A plain field, *semée* of 'stars,' would not be unsightly nor too difficult to distinguish. Forty-five mullets on a canton (i. e., corner) in six rows are not easily visible at all, and, when perceived, are hardly elegant."

The city of Washington is described in glowing colors, as follows:

"The Capitol at Washington struck me as being the most effective mass of public buildings in the world, especially when viewed at some distance, and from the park in which it stands. I am well aware of certain constructive defects which have been insisted on by Ferguson and other critics; and no one pretends that it is a perfect design of the highest order either in originality or style. It will have one day to be entirely refaced with white stone. But as an *effective* public edifice of a grandiose kind, I doubt if any capital city can show its equal. This is largely due to the admirable proportions of its central dome group, which I hold to be, from the pictorial point of view, more successful than those of St. Peter's, the Cathedral of Florence, Agia Sophia, St. Isaac's, the Panthéon, St. Paul's, or the new Cathedral of Berlin. But the unique effect is still more due to the magnificent *site* which the Capitol at Washington enjoys. I have no hesitation in saying that the *site* of the Capitol is the noblest in the world, if we exclude that of the Parthenon in its pristine glory. Neither Rome nor Constantinople, nor Florence, nor Paris, nor Berlin, nor London possesses any central eminence with broad open spaces on all sides, crowned by a vast pile covering nearly four acres and rising to a height of nearly three hundred feet, which seems to dominate the whole city. Washington is the only capital city which has this colossal centre or crown. And Londoners can imagine the effect if their St. Paul's stood in an open park reaching from the Temple to Finsbury Circus, and the great creation of Wren were dazzling white marble, and soared into an atmosphere of sunny light."

MORALITY AND THE PERFECT LIFE. Republication of a lecture by the late Henry James. Elkhart, Indiana: New Church Educational Association, 1906. Pp. 84.

The late Henry James, during his lifetime a leading spirit in the New Church is still regarded as an authority by Swedenborgians; and outsiders may regard him as an authoritative exponent of that peculiar conception of Christianity. He is a useful personality, the significance of which is best recognized when we consider that both his sons are distinguished in their particular line of work, William James, the psychologist and Henry James, the novelist. The New Church Educational Association has decided to venture in bringing out the publications of the late Henry James, which have been out of print for some years. They have begun with the present volume, which was delivered as a lecture in New York and first published under the title "Moralism and Christianity in 1850." Mr. James sets forth in it an original philosophy which however he does not claim to be his own but which he ascribes to Swedenborg, whom he accepted as his master.

LE SENS DE L'ART, sa nature, son rôle, sa valeur. Par Paul Gaultier. Paris: Hachette, 1907. Pp. 269. Price, 3 fr. 50.

This book has been prefaced by Prof. Emile Boutroux, a member of the Institute who recommends the work highly to lovers and students of art.

The author himself calls his book "The Art Sense," because he treats art from a new point of view, which is from the standpoint of emotion, to which he thinks one ought always to confine art, for art appeals to sentiment and not to the rational faculties. From this point of view we have to judge these essays, which are well written and will recommend themselves as containing many valuable observations. The author's ideas are illustrated by very small pictures on 16 plates, which is perhaps necessary on account of the small size of the book, and yet they are executed with sufficient care to serve the author's purpose. The several chapters are entitled: "The Nature of Art" in answer to the question, What is art?; "The Part Played by Art," showing what a work of art may teach; "The Morality of Art," and "The Place of Art in Social Life." The book concludes with a chapter on "Art Criticism" followed by a Bibliography of the works which proved most useful to the author.

THE GERMAN EMPIRE. By *Burt Estes Howard, Ph. D.* New York: Macmillan, 1906. Pp. 448.

The importance of Germany,—its trade, its industries, its institutions, its politics and diplomacy,—has been of growing interest in the development of the world, and yet thoroughly reliable information is as yet lacking. There are so many Germans in this country that we almost believe we know Germany as well as if we had been there, and yet our information through the German-American press as well as German-American settlers is very unreliable. For a systematic and trustworthy information the present book is most serviceable. It treats its subjects in the following chapters: The Foundation of the German Empire; The Empire and the Individual States; The Kaiser (not a characterization of the present Kaiser but the significance of the office, of the title, and the privileges connected with it); The Bundesrat (representing the collected power of all the state governments); The Reichstag (the German representative of the people); Imperial Legislation; The Imperial Chancellor (a position which since Bismarck's day is of paramount importance); Citizenship under the German Constitution; The Judicial Organization of the Empire; Alsace-Lorraine and Its Relation to the Empire; The Constitution and Imperial Finance; The Armed Forces of the Empire; and The Imperial Constitution.

The author is obviously competent for his work. His sources, carefully mentioned in footnotes, are the best and most reliable; the subject-matter is presented with rare clearness, bringing out the essential point; and the reading of the book is interesting through a freshness apparently due to the fact that the author's knowledge rests on personal inspection and direct experience. The index is made with great care and adds much to the value of the book.

A PICTURE BOOK OF EVOLUTION. By *Dennis Hird.* Part I. London: Watts & Company, 1906. Pp. 200.

This is the first part of a popular exposition of evolution, and it is truly, as the title states, a picture book, for there may be not more than 30 pages in the book without illustrations, and the author's intention is to present the truth of evolution to children in the most simple and forcible manner. The first volume which here lies before us contains the chapters Astronomy, Geology, and Zoology.

New and Forthcoming Open Court Books



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

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

In these essays Professor Mach discusses the questions of the nature, origin, and development of our concepts of space from the three points of view of the physiology and psychology of the senses, history, and physics, in all which departments his profound researches have gained for him an authoritative and commanding position. While in most works on the foundations of geometry one point of view only is emphasized—be it that of logic, epistemology, psychology, history, or the formal technology

of the science—here light is shed upon the subject from all points of view combined, and the different sources from which the many divergent forms that the science of space has historically assumed, are thus shown forth with a distinctness and precision that in suggestiveness at least leave little to be desired.

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

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

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

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

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

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

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

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



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

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

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

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

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

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



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

This book will be welcome to all teachers of philosophy, for it is a translation made by a competent hand of the most important essay on the history of Greek thought down to Aristotle, written by Aristotle himself. The original served this great master with his unprecedented encyclopedic knowledge as an introduction to his *Metaphysics*; but it is quite apart from the rest of that work, forming an independent essay in itself, and will remain forever the main source of our information on the predecessors of Aristotle.

Considering the importance of the book, it is strange that no translation of it appears to have been made since the publication of that by Bekker in 1831.

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

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

Zarathushtra, Philo, the Achaemenids and Israel.

A Treatise Upon the Antiquity and Influence of the Avesta. By Dr. Lawrence H. Mills, Professor of Zend Philology in the University of Oxford. 1906. Pp. 460. Cloth, gilt top. \$1.00 net.

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

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

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

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

Essay on the Creative Imagination.

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

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

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



Our Children.

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

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

Yin Chih Wen, The Tract of the Quiet Way.

With Extracts from the Chinese commentary. Translated by Teitaro Suzuki and Dr. Paul Carus. 1906. Pp. 48. 25c net.

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

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

T'ai-Shang Kan-Ying P'ien, Treatise of the Exalted One on Response and Retribution. Translated from the Chinese by Teitaro Suzuki and Dr. Paul Carus. Containing Chinese Text, Verbatim Translation, Explanatory Notes and Moral Tales. Edited by Dr. Paul Carus. 16 plates. Pp. 135. 1906. Boards, 75c net.

The book contains a critical and descriptive introduction, and the entire Chinese text in large and distinct characters with the verbatim translation of each page arranged on the opposite page in corresponding vertical columns. This feature makes the book a valuable addition to the number of Chinese-English text-books already available. The text is a facsimile reproduction from a collection of Chinese texts made in Japan by Chinese scribes.

After the Chinese text follows the English translation giving references to the corresponding characters in the Chinese original, as well as to the explanatory notes immediately following the English version. These are very full and explain the significance of allusions in the Treatise and compare different translations of disputed passages. This is the first translation into English directly from the Chinese original, though it was rendered into French by Stanislas Julien, and from his French edition into English by Douglas.

A number of illustrative stories are appended in all the editions of the original, but the selection of these stories seems to vary in the different editions. They are very inferior in intrinsic value to the Treatise itself, and so are represented here only by extracts translated in part directly from the Chinese edition and in part through the French of Julien, but many are illustrated by reproductions of the Chinese pictures from the original edition. The frontispiece is a modern interpretation by Keichyu Yamada of Lao Tze, the great Oriental philosopher, "The Exalted One" to whom the authorship of this Treatise is ascribed.

Spinoza and Religion. A Study of Spinoza's Metaphysics and of his particular utterances in regard to religion, with a view to determining the significance of his thought for religion and incidentally his personal attitude toward it. By Elmer Ellsworth Powell, A. M., Ph. D., Professor of Philosophy in Miami University. 1906. Pp. xi, 344. \$1.50 net. (7s. 6d.)



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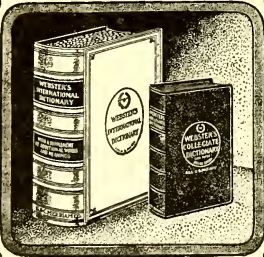
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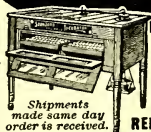
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